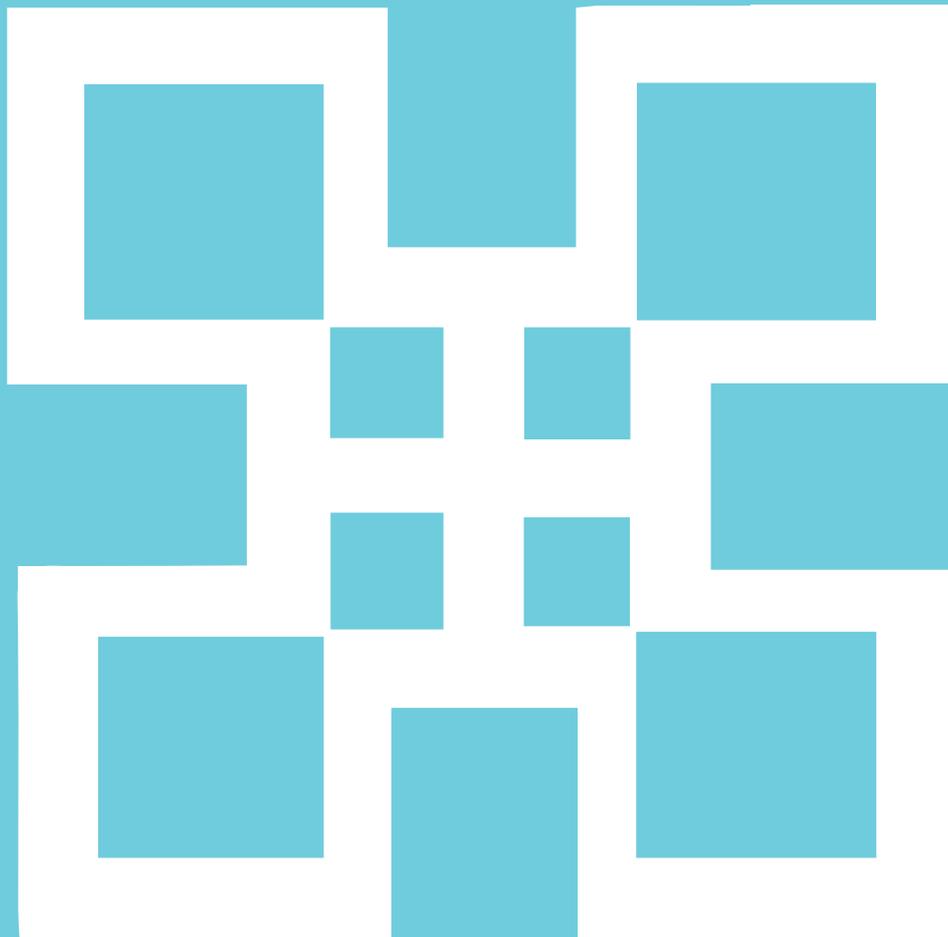


# Professional Learning Community Handbook 1

## Working to the National Teachers' Standards

HANDBOOK FOR TEACHERS



Wisdom, Knowledge  
and Prudence



Ghana Education  
Service (GES)





GOVERNMENT OF GHANA



mastercard  
foundation



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# **Professional Learning Community Handbook 1 Working to the National Teachers' Standards**

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**Teacher Version**

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# FOREWORD

Ghana Education Service has collaborated with the National Teaching Council, tutors of Colleges of Education, the University for Development Studies, Accra and Takoradi Technical Universities, and teachers from 12 Senior High Schools, Senior High Technical Schools, and Technical Institutes to develop this maiden Professional Learning Community (PLC) Handbook. The (PLC) Handbook is intended to assist Heads of Secondary Schools and teachers to run weekly PLC sessions in schools. These PLC sessions are dedicated periods in the school's weekly schedule where all teachers come together and work collaboratively to improve teaching and learning.

PLC sessions will help teachers to build a collective understanding of how to improve outcomes for all learners in their schools through a series of practical activities such as lesson study, team teaching and action research. The involvement of teachers from 12 Senior High Schools, Senior High Technical Schools, and Technical Institutes in the writing of this Handbook means that the primary users of the Handbook are the ones who have been involved in its creation, helping to ensure its relevance and practicality.

This first PLC Handbook focuses on strengthening understanding, awareness, and adherence to the National Teachers' Standards (NTS). The standards provide the foundations upon which Ghana's educational reforms are built as they specify the three things needed to develop an effective teacher:

1. Professional Values and Attitudes - the dedication to learn and improve and become the best teacher you can be
2. Professional Knowledge- of the subjects and content of the curriculum being taught
3. Professional Practice- the understanding of how to encourage participation, critical thinking and achieve intended learning outcomes

The PLC Handbook is designed to improve quality and relevance of teaching and learning through experiential sharing and strategies which also incorporate Gender, Equality and Social Inclusion (GESI), Information and Communication Technology (ICT) and 21<sup>st</sup> Century Skills. The Handbook is structured in 12 units which are applicable for all SHSs and 8 units of TVET to cater for the specific needs of Technical Institutes.

It is our hope and expectation that this PLC Handbook represents an important step in the transformation of our secondary education system and that it will be used effectively across all Ghanaian secondary education institutions.

**Dr. Eric Nkansah**  
Director-General  
Ghana Education Service

# PROFESSIONAL LEARNING COMMUNITY HANDBOOK 1

## WORKING TO THE NATIONAL TEACHERS' STANDARDS – TEACHER VERSION

### **1. *Background to the PLC Sessions in this Handbook.***

There are twelve weekly PLC Sessions designed to prepare teachers to teach subjects in the secondary school curriculum to the National Teachers' Standards. The Sessions are not subject specific although teachers who teach Technical and Vocation Education and Training (TVET) subjects have access to a subject specific version of eight of the Sessions (-i.e., Sessions 5-12).

The PLC Sessions are designed to help operationalize the reform of secondary education at both teacher and student levels and to support:

- ▶ professionalising teaching by supporting teachers in developing communities of practice and enhancing their professionalism.
- ▶ improving the learning outcomes and life chances for all learners.

### **2. *Features of the PLC Sessions.***

- ▶ The main resources for the weekly teacher Sessions are PLC Teacher Handbook and the PLC Coordinator Handbook.
- ▶ Both versions are written to provide information to guide the twelve weekly PLC Sessions that are linked directly to the National Teachers' Standards.
- ▶ The PLC Coordinator Handbook has prompts for leading the PLC Session.
- ▶ The teacher PLC handbook contains activities for teachers and guidance for what they will do during the Session.
- ▶ The weekly PLC Sessions are of an hour and a half duration.

## PLC Session 1: Gender Equality and Social Inclusion (GESI)

	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session.</i>	<b>Time in session</b>
<b>1. Introduction to session</b>	<p>1.1 Start the PLC session with an icebreaker.</p> <p>1.2 Read the introduction to Gender Equality and Social Inclusion (GESI) and the learning outcome (LO) as well as learning indicators (LIs) below and provide your opinions on same (NTS 1a,1e, 2b and 3f).</p> <p><b>Introduction to GESI:</b></p> <p><b>a) Purpose of GESI in all subject areas</b>            Communities all over the world consist of diverse individuals and social groupings that have different needs, strengths, opportunities, and concerns as a result of differences in culture, gender, religion, abilities, economic and social status. As a teacher, it is important to understand the uniqueness of the diverse groups in the classroom and ensure that every individual is supported to access quality education. GESI in schools is being championed towards promoting equal opportunity for females and males as well as all other disadvantaged groups in the classroom. Teachers need to have a clear understanding of GESI issues to be able to integrate these in the teaching and learning process and other aspects of School life and to encourage learners to do same during learning.</p> <p><b>b) Overview of GESI and related concept.</b>            This session seeks to expose teachers in all the subject areas (in all second cycle institutions) to the concept to GESI and related issues such as Gender, Equality, Equity, etc., to enable them appreciate issues of stereotyping and work towards challenging traditional gender roles as well as dealing with their own unconscious biases so they can attend to the diverse needs of all learners in the classroom and in the schools generally.</p> <p><b>Note</b>  <i>LO (Learning Outcome): This is the expected knowledge, understanding, skills, etc., to be acquired at the end of a lesson. LI (Learning Indicator): This is the practical evidence that learning has taken place. It may</i></p>	25 mins

	<p><i>include verbal responses, practical activity or products.</i></p> <p><b>LO:</b> Demonstrate understanding of the relevance of GESI and related issues in the National Teachers’ Standards (NTS).</p> <p>LI 1 Discuss the concept of GESI and related issues.</p> <p>LI 2 Plan teaching and learning activities that integrate the concept of GESI.</p> <p>LI 3 Plan activities that help learners to understand GESI responsiveness and apply them during learning.</p> <p>1.3 Explain what GESI means (NTS 3i).</p> <p><b>Gender, Equality and Social Inclusion (GESI)</b> is a concept that addresses unequal power relations experienced by people on the grounds of gender, wealth, ability, location, ethnicity, language and agency or a combination of these dimensions.</p> <p>GESI Responsive Checklist for Teachers</p> <p>1.4 In your subject groups, use talk for learning strategies to explain any <b>two</b> concepts related to GESI and how each concept is linked to education. (You may use your phones/laptops to do the search) (NTS 3g, 3i and 3j).</p> <p><i>E.g.</i></p> <p><i>Social exclusion: Persons with disabilities may be excluded from various activities due to their inability to participate in such activities. If no adjustment is made to address the limitation, they will remain excluded.</i></p> <p><i>In education, exclusion may occur if the classroom is located at a place where it is not accessible to learners in wheelchairs or if the teacher uses a teaching method (e.g., discussion) that is not accessible to learners with special educational needs (SEN)(such as those with hearing impairment).</i></p> <p>1.5 Read aloud the notes on GESI below:</p> <p><b>Gender</b> is the relationship between females and males and the roles and responsibilities they have in society. For example, in Ghana, it is socially accepted that cooking is the role of women and providing upkeep money for the family is the role of men.</p> <p><b>Equality</b> is creating equal opportunities for males and females. It is a fundamental right, and it is often the</p>
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	<p>GOAL. It seeks to ensure that all learners are given equal opportunities at improved academic outcomes irrespective of their unique needs. In essence, everyone gets to achieve their highest potentials.</p> <p><b>Equity</b> refers to a fair sharing of resources, opportunities and benefits according to the unique needs of the individual or group. It is often the means or process towards achieving equality. Equity is the means and equality is the goal.</p> <p><b>Note</b> that Equality is not a harmful concept, nor is equity a better concept. that Equity is the process of achieving Equality, which is the outcome. (GESI Responsive Checklist for Teachers, 2015).</p> <p><b>Inclusion</b> is the process of valuing all individuals and leveraging their diverse talent, not in spite of their differences, but because of their differences. For example, ensuring that <b>all</b> learners (boys, girls and SEN) are given equal opportunities to participate in the classroom.</p> <p><b>Gender Equality</b> is a state where males and females have equal rights, life prospects and opportunities to shape their own lives and contribute to society.</p> <p><b>Social Inclusion</b> is the process of improving the terms of participation for people who are disadvantaged, through enhancing opportunities and access to resources.</p> <p>1.6 Reflect on your understanding of GESI and justify its importance in education (NTS 1a, 1c, 1f, 3f, 3h and 3i). E.g. The classroom and school environment have been skewed in ways that condone gender bias and promote exclusion. Male characters are often represented more than female characters in teaching/learning materials (TLMs) and textbooks.</p>	
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<p><b>2. Overcoming GESI related misconceptions, negative perceptions, stereotypes and other challenges</b></p>	<p>2.1 Identify and discuss how the GESI concepts introduced in the session could be useful in your teaching and general school life (NTS 2f, 3k, 3l, 3m and 3n). <i>E.g.</i> <i>Inclusion: mix ability/gender grouping; involving all categories of learners in every teaching activity</i></p> <p>2.2 Reflect individually, share with a colleague and then the entire group possible barriers to learning in relation to GESI and how to address them (NTS 3f, 3m). <i>E.g.</i> <i>Stereotypes: Certain roles are for specific gender; boys are brave and can dissect rodents in science lessons more easily than girls while girls are better cooks than boys. This can be addressed by citing instances where girls demonstrate bravery and boys have been better cooks.</i> <i>Negative perception: Persons with special educational needs are low achievers. Address this by giving examples of persons with SEN who have excelled in various aspects of life. An example is Farida Bedwei - a lady living with cerebral palsy who is a software engineer and co-founder of Logiciel, a fin- tech company in Ghana.</i> (Teachers may share their experiences of unfair treatment/unconscious biases that constitute barriers to GESI).</p> <p>2.3 Identify and share GESI responsive practices that can help in creating GESI friendly school and classroom environments in the context of second cycle institutions (NTS 1c, 3e, 3g and 3j). <i>E.g.</i> <i>a) Involving men and women equally in decision making</i> <i>b) ensuring that all school facilities are accessible to everyone (abled bodied and persons with disability, etc.)</i></p>	
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<p><b>3. Implementing GESI in teaching, learning and assessment.</b></p>	<p>3.1 Discuss in your subject groups and come out with strategies on how GESI can be integrated in your specific subject areas (NTS 1a, 3e and 3g). E.g. a) Using multiple methods (question and answer, discussion, videos, role play, etc.) in lessons to cater for different learning styles b) <i>Using different learning resources (audio, visuals, audio-visuals, tactile, etc.) to cater for different learning styles</i></p> <p>3.2 identify and discuss possible strategies to make projects and portfolios GESI responsive (NTS 1a, 3a). E.g. a) <i>Equitable distribution of relevant resources for projects</i> b) <i>Ensure projects' content does not portray GESI biases and stereotypes.</i></p> <p><b>Note:</b> Make conscious efforts to ensure GESI responsiveness in conducting continuous assessment in your subject area E.g. <i>Ensure that leadership roles are assigned equally among females, males and learners with special education needs (SEN) when assessments (projects) are done in groups.</i></p> <p>3.3 identify and discuss the links to GESI resources such as the Gender Handbook for Second Cycle Schools and T-TEL Gender Handbook for Teaching Practice Mentors (NTS 3h, 3j). E.g. <a href="https://campaignforeducation.org/en/press-centre/an-equal-world-is-an-enabled-world?gclid=EAlaIQobChMIiPqF_x8iW9wIVmpntCh213wroEAAAY_BCAAEGljcfD_BwE">https://campaignforeducation.org/en/press-centre/an-equal-world-is-an-enabled-world?gclid=EAlaIQobChMIiPqF_x8iW9wIVmpntCh213wroEAAAY_BCAAEGljcfD_BwE</a> <a href="https://plan-international.org/education/inclusive-education-children-disability/?gclid=EAlaIQobChMI3OuI0cmW9wIVToFQBh1Wnw0aEAAAYASAAEgIN3PD_BwE">https://plan-international.org/education/inclusive-education-children-disability/?gclid=EAlaIQobChMI3OuI0cmW9wIVToFQBh1Wnw0aEAAAYASAAEgIN3PD_BwE</a> <a href="https://www.worldvisionphilanthropy.org/resources/gesi">https://www.worldvisionphilanthropy.org/resources/gesi</a></p> <p>3.4 Model a selected activity in a teaching situation that is linked to any of the LIs of the c) session. <i>Ensure projects' content does not portray</i></p>	<p>30 mins</p>
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	<p><i>GESI biases and stereotypes.</i></p> <p><b>Note:</b>          Make conscious efforts to ensure GESI responsiveness in conducting continuous assessment in your subject area</p> <p><i>E.g.</i>  <i>Ensure that leadership roles are assigned equally among females, males and learners with special education needs (SEN) when assessments (projects) are done in groups.</i></p> <p>3.3 identify and discuss the links to GESI resources such as the Gender Handbook for Second Cycle Schools and T-TEL Gender Handbook for Teaching Practice Mentors (NTS 3h, 3j).</p> <p><i>E.g.</i>  <a href="https://campaignforeducation.org/en/press-centre/an-equal-world-is-an-enabled-world?gclid=EAlalQobChMliPgF x8iW9wIVmpntCh213wroEAAY BCAAEGljcfD BwE">https://campaignforeducation.org/en/press-centre/an-equal-world-is-an-enabled-world?gclid=EAlalQobChMliPgF x8iW9wIVmpntCh213wroEAAY BCAAEGljcfD BwE</a>  <a href="https://plan-international.org/education/inclusive-education-children-disability/?gclid=EAlalQobChMI3OuI0cmW9wIVToFQBh1Wnw0aEAAYASAAEgIN3PD BwE">https://plan-international.org/education/inclusive-education-children-disability/?gclid=EAlalQobChMI3OuI0cmW9wIVToFQBh1Wnw0aEAAYASAAEgIN3PD BwE</a>  <a href="https://www.worldvisionphilanthropy.org/resources/gesi">https://www.worldvisionphilanthropy.org/resources/gesi</a></p> <p>3.4 Model a selected activity in a teaching situation that is linked to any of the LIs of the d) session.</p>	
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<p><b>4. Evaluation and review of session:</b></p> <ul style="list-style-type: none"> <li>▶ <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></li>   <li>▶ <b>Noting that teachers need to identify critical friends to observe lessons and report at next session</b></li> </ul>	<p>4.1 Reflect and write what you have learnt in the session (NTS 1a, 3l and 3n).</p> <p>4.2 Share what you have learnt with the larger group.</p> <p>4.3 Identify a critical friend to observe your lesson to provide feedback on how you have used GESI in the lesson and report at the next session</p> <p>4.4 Read session 2 from the PLC Handbook in preparation for the next session.</p> <p>4.5 Come to the next session (i.e., Session 2) with their phones, laptops and other ICT devices for the session on ICT.</p>	<p>15 mins</p>
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## PLC Session 2: Information and Communications Technology (ICT)

	<i>Guidance Notes on Teacher Activity during the PLC Session. What teachers will do during each stage of the session.</i>	<i>Time in session</i>
<p><b>1. Review of Previous Session and introduction to new session</b></p> <p><b>NB: PLC Coordinator should ask teachers to plan for their teaching as they go through the PLC session</b></p>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>gender equality and social inclusion</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>gender equality and social inclusion</i>, supported learning.</p> <p>1.3 Read the purpose, preamble, learning outcomes (LOs) and learning indicators (LIs) of the session.</p> <p><b>a. Purpose of ICT in teaching and learning:</b> As indicated in the LOs and LIs below, this session is intended to:</p> <ol style="list-style-type: none"> <li>i. Help teachers plan and teach learner-centred lessons using ICT.</li> <li>ii. Provide teachers access to and use of ICT tools for <b>assessment for</b> learning, assessment <b>as</b> learning and assessment <b>of learning</b>.</li> <li>iii. Introduce teachers to the use of ICT for the development of 21<sup>st</sup> century skills.</li> <li>iv. Guide teachers in the use of ICT software and hardware for teaching and learning.</li> </ol> <p><b>b. Preamble</b> Teachers in the 21st century are facing new challenges because of the expanding possibilities of ICT integration in every aspect of the school curriculum. Irrespective of the level a teacher operates at regarding ICT mediated teaching and learning, ICTs resources have the capability of bringing several benefits to teachers and students.</p>	30 mins

	<p>The benefits may include shared learning resources, shared learning spaces and promotion of cooperative and collaborative learning. They also provide a base for autonomous learning.</p> <p>Welliver's Instructional Transformation Model sets goals and expectations for all teachers at whatever stage they are starting at. The five hierarchical stages, which have been explained below, start with familiarization, then utilization, integration, reorientation and finally revolution.</p> <p>(<a href="http://www.welliversinstructionalmodel.com">www.welliversinstructionalmodel.com</a>, published 8<sup>th</sup> June, 2011, retrieved 8<sup>th</sup> April, 2022)</p> <ol style="list-style-type: none"> <li>i. <b>Familiarization:</b> This is when teachers become aware of technology and its potential uses.</li> <li>ii. <b>Utilization:</b> This is where teachers use technology, but minor problems will cause them to discontinue its use.</li> <li>iii. <b>Integration:</b> Here, technology becomes essential for the educational process and teachers are constantly thinking of new ways to use technology in their classrooms.</li> <li>iv. <b>Reorientation:</b> At this level, teachers begin to rethink the educational goals of the classroom with the use of technology.</li> <li>v. <b>Revolution:</b> This is the highest level where the evolving classroom becomes completely integrated with technology in all subject areas. Technology becomes an invisible tool that is seamlessly woven into the teaching and learning process.</li> </ol> <p>LO 1: Demonstrate the use of basic ICT tools for planning lessons (NTS 3a, 3c).  LI 1.1 Mention and describe at least three basic ICT tools that can be used in planning a lesson.  LI 1.2 Perform basic lesson planning tasks using an ICT tool.</p> <p>LO 2: Demonstrate knowledge of the basic ICT tools and their impact on teaching and learning (NTS 3g, 3h, 3j, 3n, 3k, and 3p).  LI 2.1 Mention and describe at least three basic ICT tools and how to use them in teaching and learning.</p>	
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	<p>LI 2.2 Analyse and evaluate the impact of ICT on teaching and learning.</p> <p>LO 3: Demonstrate the use of basic ICT tools in assessment (NTS 3j, 3k).</p> <p>LI 3.1 Mention and describe at least three basic ICT tools that can be used to assess both teaching and learning.</p> <p>LI 3.2 Perform lesson assessment using an ICT tool.</p> <p>LO 4: Demonstrate understanding of how ICT tools enhance the quality of research activities (NTS 3b).</p> <p>LI 4.1 List at least four ICT tools used in research.</p> <p>LI 4.2 Perform basic research tasks using ICT tools.</p> <p>1.4 Mention at least three basic ICT tools and what they are used for.</p> <p><i>E.g.</i> <i>Desktop Computers (Preparation of document, editing, etc.)</i></p> <p>1.5 Distinguish between computer hardware and software by mentioning at least two of each.</p> <p><b>Software</b></p> <p><i>E.g.</i> <i>Office Professional – e.g., XP, etc.</i></p> <p><b>Hardware</b></p> <p><i>E.g.</i> <i>Flat Screen monitor, etc.</i></p> <p>1.6 Share your views about how to create, edit, format, save and print documents using various productivity tools.</p> <p><i>E.g.</i> <i>Saving a document using “save as” or clicking on the ‘save’ icon, etc.</i></p> <p>1.7 Share your experiences of the integration and impact of ICT tools in your teaching.</p> <p><i>E.g.</i> <i>Open Educational Resources (OERs) i.e., open courseware, learning models, streaming videos, online tutorials, open access journals, digital learning objects all improve lesson presentations and make them more interesting, etc.</i></p>	
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	<p>1.8 In groups, share your views on using specific ICT tools to search for teaching, learning and assessment activities</p> <p><i>E.g.</i> <i>Using electronic grading rubric – a guide for assessing work manually or electronically, etc.</i></p>	
<p><b>Overcoming misconceptions, stereotypes, negative perceptions about ICT</b></p>	<p>1.9 In pairs, discuss misconceptions in teaching and learning with ICT tool (s) and share possible ways of addressing them.</p> <p><i>E.g.</i> <i>Computers can do everything a teacher can do. This is a misconception which must be addressed by finding examples of what teachers can do but computers cannot do- i.e., teachers take into consideration students’ feelings when teaching them, etc.</i></p> <p>1.10 Outline possible challenging areas in teaching with ICT tool(s) taking into consideration GESI.</p> <p><i>E.g.</i> <i>Identifying areas in the curriculum where GESI stereotypes are reinforced through ICT. An example is where male learners tend to dominate computer use in the classroom. Teachers should ensure equitable access to computer use in the classroom, etc.</i></p>	10 mins
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the secondary school curriculum</b></p>	<p>2.1 In groups, share your views on how to plan lessons using ICT tools.</p> <p><i>E.g.</i> <i>In planning a lesson, a teacher will need electronic devices and other resources to develop structured learning activities:</i></p> <p><i>Printer/photocopier, printed task sheets, links to videos, slides, memory stick, calculator, etc.</i></p> <p>2.2 Discuss general ICT tools for teaching and learning.</p> <p><i>E.g.</i> <i>Desktop and laptop computers (used to write lesson plans and</i></p>	20 mins

	<p><i>develop teaching and learning materials), projector, digital cameras, etc.</i></p> <p>2.3. Discuss the appropriate ICT tools to support students with Special Education Needs (SEN) during teaching, learning and assessment (NTS, 3f, 3o). <i>E.g.</i> <i>Teachers dealing with the SEN will require special ICT tools like; text magnifier, head wands, etc.</i></p>	
<p><b>3. Teaching, learning and assessment</b></p>	<p>3.1. Identify at least two possible gaps in the use of ICT tools in your lesson delivery and discuss possible ways of addressing them. <i>E.g.</i> <i>Possible gap: Some teachers may not be IT literate</i> <i>Possible solution: Designing ICT training packages to equip teachers with the necessary knowledge and skills in using ICT tools in lesson delivery</i></p> <p>3.2 Discuss in your subject groups and come out with at least three strategies on how ICT can be integrated in your specific subject areas (NTS 3i, 3j). <b>(EXTENSION ACTIVITY)</b> <i>E.g.</i> <i>The use of computer simulation in science teaching presentations, etc.</i></p> <p>3.3 Discuss at least two possible strategies that use ICT tools in a GESI and SEL responsive manner to develop these skills in learners. <i>E.g.</i> <i>Giving all learners including SEN equal access to computers, etc.</i></p> <p>3.4 Mention at least three 21<sup>st</sup> century skills and ICT tools that can be integrated during teaching and learning to develop these skills in learners. <i>E.g.</i> <i>Building communication skills with the use of ICT tools such as computers, projectors, etc., to do PowerPoint presentation.</i></p> <p><i>E.g.</i> <i>The following links can be used to access information on 21st century skills:</i></p> <p><i>i. Collaborative problem solving</i> <i><a href="https://youtu.be/cnkKH_L_dyGE">https://youtu.be/cnkKH_L_dyGE</a></i></p>	<p>20mins</p>

	<p>ii. Creativity <a href="https://www.youtube.com/watch?v=qV7DiTFd tvw">https://www.youtube.com/watch?v=qV7DiTFd tvw</a></p> <p>iii. <b>Effective written and oral communication</b> <a href="https://www.youtube.com/watch?v=D5hMN_XkPQA">https://www.youtube.com/watch?v=D5hMN_XkPQA</a></p> <p>iv. <b>Information and media literacy</b> <a href="https://youtu.be/bjYhm TC3Irc">https://youtu.be/bjYhm TC3Irc</a></p> <p>v. <b>Critical thinking</b> <a href="https://youtu.be/y7iME H7jGFk">https://youtu.be/y7iME H7jGFk</a> <a href="https://youtu.be/88Do GrqEuJk">https://youtu.be/88Do GrqEuJk</a></p> <p>vi. <b>Leadership</b> <a href="https://youtu.be/NF10F6bX_g">https://youtu.be/NF10F6bX_g</a></p> <p>3.5 Discuss in groups how to assess learning using ICT tools. <i>E.g.</i> <i>Using electronic grading rubric – a guide for assessing work manually or electronically</i></p> <p>3.6 In subject groups, come out with at least four possible assessment tools in ICT to support you in assessing learners. <i>E.g.</i> <i>In English language, tools will include those for checking grammar errors online and those for checking plagiarism,</i></p> <p>3.7 Model a teaching activity using any ICT tool(s) of your choice. <b>(EXTENSION ACTIVITY)</b> etc. Identify any outstanding issue(s) relating to the session for clarification.</p>	
<p><b>4. Evaluation and review of session:</b></p> <ul style="list-style-type: none"> <li>▶ <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></li> </ul> <p><b>Noting that teachers need to identify critical friends to observe lessons and report at next session</b></p>	<ul style="list-style-type: none"> <li>▶ Mention at least four ICT tools that can be used in the delivery of your lessons.</li> <li>▶ Identify a critical friend who will observe your lesson and give you feedback on how you integrate ICT in the lesson.</li> <li>▶ Remember to read session 3 from the PLC Handbook in preparation for the next session.</li> </ul> <p>Come to the next session (i.e., Session 3) with the <b>National Teachers’ Standard Guidelines for the next PLC sessions</b></p>	

<b>PLC Session 3: Social and Emotional Learning (SEL)</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session</i>	<b>Time in session</b>
<b>1. Introduction</b>	<p>1.1 Share what you did differently in the classroom or elsewhere based on PLC Session 2, on <i>Information &amp; Communications Technology</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence, why you think what your colleague did by way of application of what you learned in Session 2, on <i>Information &amp; Communications Technology</i>, supported learning.</p>	20 mins
<b>2. Planning for teaching, learning and assessment activities, making links with the Pre-Tertiary (standards-based) Curriculum and using GESI, SEL, ICT and 21<sup>st</sup> century skills</b>	<p>2.1 Read the purpose, introduction to Social and Emotional Learning (SEL), the Learning Outcomes (LOs) and Learning Indicators (LIs) for the session.</p> <p><b>Purpose:</b> The purpose of the session is to guide teachers to;</p> <ol style="list-style-type: none"> <li>have a clear understanding of SEL competencies</li> <li>take SEL competencies into account in the teaching and learning process</li> <li>implement SEL in other aspects of school life</li> <li>engage teachers on how to encourage learners to take SEL into account in their learning.</li> </ol> <p><b>Introduction to SEL:</b> Social and emotional learning refers to the process through which learners learn to understand and manage emotions; set and achieve positive goals; feel and show empathy for others; establish and maintain positive relationships; and make responsible decisions (Weissberg, <i>et al.</i>, 2015). Teaching involves addressing learners’ emotional, social and behavioural needs. With the right support, learners learn to articulate and manage their own emotions. They are able to deal with conflict and solve problems if they are given the appropriate guidance. Also, learners are able to understand things from other people’s perspective and communicate in appropriate ways if teachers make a deliberate effort to encourage them to do so. These social and emotional skills are essential for learners’ development. They support effective learning and are linked to positive outcomes in later life. Social and emotional learning can enhance mental health and well-being, positive learner behaviour and academic</p>	30 mins

	<p>performance.</p> <p>LO 1: Demonstrate knowledge and understanding of concepts related to SEL (NTS 2e, 2f, 3c, 3d, 3f, 3g and 3k).</p> <p>LI 1.1 Explain the term SEL.</p> <p>LI 1.2 List and explain at least three competencies associated with SEL.</p> <p>LO 2: Demonstrate knowledge, understanding and application of SEL across the SHS/TVET curriculum (NTS 2e, 2f, 3c, 3d, 3f, 3g and 3k).</p> <p>LI 2.1 Mention and explain at least two benefits of SEL competencies.</p> <p>LI 2.2 Discuss how to promote SEL competencies in the school environment including the classroom.</p> <p>2.2 In pairs/groups, explain the term SEL in your own words (NTS 2c, 2e).</p> <p>2.3 List and explain at least three competencies associated with SEL (NTS 2e, 2f).</p> <p><i>E.g.</i></p> <p><i>Self-awareness:</i> <i>Ability to consider and understand one’s emotions, thoughts, values and experiences, and how these can influence one’s actions, etc.</i></p> <p>2.4 In pairs/groups, mention and explain at least two benefits of any of the competencies of SEL (NTS 2e, 2f, 3c, 3f, 3g, 3k and 3l).</p> <p><i>E.g.</i></p> <p><i>Self-awareness:</i> <i>Helps to identify one’s strengths and limitations, etc.</i></p> <p>2.5 Discuss how you will promote SEL competencies in your classroom and the school as a whole (NTS 3c).</p> <p><i>E.g.</i></p> <p><i>Self-awareness:</i> <i>Expand learners’ emotional vocabulary and support them to express emotions, etc.</i></p> <p>2.6 Reflect individually, share your ideas with a colleague and then with the larger group (i.e., think-pair share) possible barriers to applying concepts of SEL to teaching and learning and how to address them (NTS 2f, 3m).</p> <p><i>E.g.</i></p> <p><i>Misconception:</i></p>	
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	<p><i>Many people think that reserved and shy learners are academically weak, etc. To address this, teachers can use whole-class dialogue, questions, think-pair-share in their lesson which will encourage reserved learners to participate fully in lessons, etc.</i></p> <p>2.7 Identify at least four ways of making assessment SEL responsive (NTS 3k, 3n - 3p). <i>E.g. Provide constructive feedback to all learners, etc.</i></p> <p>2.8 Write and share at least four SEL responsive practices that can help make the learning environment conducive and non-threatening (NTS 3a -3c, 3e - 3g). <i>E.g. Provide suitable seating arrangements to meet all types of learners' needs, etc.</i></p> <p><i>Refer to the sample lesson plan in social studies below. Sample lesson plan based on Social Studies SHS Three 2010 Syllabus</i></p> <p>a) <i>Topic: Environmental challenges</i></p> <p>b) <i>Sub-Topic: Environmental degradation</i></p> <p>c) <i>Objectives: By the end of the lesson, the learner will be able to:</i></p> <ol style="list-style-type: none"> <li><i>i. Describe at least three activities that degrade the environment</i></li> <li><i>ii. Describe at least three effects of degradational activities on human life</i></li> <li><i>iii. Identify at least three steps that can be taken to reduce environmental degradation</i></li> </ol> <p>d) <i>Teaching and Learning Resources (TLRs): Computer, projector, pictures, flipcharts/cardboards etc.</i></p> <p>e) <i>Relevant Previous Knowledge (RPK): Learners can mention the components of the environment.</i></p> <p>f) <i>Introduction:</i></p> <ol style="list-style-type: none"> <li><i>i. Ask learners to count the number of colleagues in the class from wherever they sit in the classroom and write the number down. Call some of the learners to tell you any number they like between one and the number they have written down. For each number that a learner mentions, refer to your class list and mention the name of the learner that corresponds to that number and ask the learner</i></li> </ol>	
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	<p><i>who chose that number to say something positive about the colleague whose name was mentioned.</i></p> <p>ii. <i>In an all-inclusive class discussion, guide learners to mention the components of the environment. Make conscious effort to encourage those who are reserved to contribute to the discussion.</i></p> <p>g) <i>Task/Activities:</i></p> <p>i. <i>Ask learners to form mixed-gender/mixed-ability groups of three to five learners (consider class size). In each group let them elect a leader and a secretary. Show PowerPoint slides of some activities that degrade the environment for them to observe and discuss. Call each group to pick any of the activities and describe how it contributes to environmental degradation. Provide appropriate measure of praise for effort.</i></p> <p>ii. <i>Guide learners in groups to discuss the effects of environmental degradation. Each group should be given a flip-chart /card board to write their findings and appoint among themselves one to present their points in class.</i></p> <p>iii. <i>Ask learners in groups to identify themselves as political parties with their own names (Let them use non-existent names). Let them discuss and prepare a manifesto on steps that they would take to reduce the degradation of the environment if they are elected. Move round the groups to encourage and support them appropriately.</i></p> <p>iv. <i>Ask the groups to present their manifestoes using media as appropriate and ask learners to critique them. Remind learners to be guarded in their comments and intervene to correct unguarded remarks.</i></p> <p>h) <i>Core Points:</i></p> <p>i. <i>Activities that degrade the environment:</i></p> <ul style="list-style-type: none"> <li>➤ <i>Bush burning</i></li> <li>➤ <i>Deforestation</i></li> <li>➤ <i>Sand winning</i></li> <li>➤ <i>Improper mining practices</i></li> <li>➤ <i>Improper disposal of refuse</i></li> </ul> <p>ii. <i>Effects of environmental degradation:</i></p> <ul style="list-style-type: none"> <li>➤ <i>Diseases</i></li> <li>➤ <i>Destruction of plant and animal life</i></li> <li>➤ <i>Floods</i></li> <li>➤ <i>Occupational and industrial accidents</i></li> <li>➤ <i>Global warming</i></li> </ul> <p>iii. <i>Steps to reduce environmental degradation:</i></p>	
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	<ul style="list-style-type: none"> <li>➤ <i>Sanctions should be imposed on offenders</i></li> <li>➤ <i>Public education</i></li> <li>➤ <i>National policy to protect the environment</i></li> <li>➤ <i>Appropriate technology usage</i></li> </ul> <p><i>i) Core Competencies:</i></p> <ul style="list-style-type: none"> <li><i>i. Digital literacy</i></li> <li><i>ii. Problem solving skills</i></li> <li><i>iii. Collaboration skills</i></li> <li><i>iv. Critical thinking skills</i></li> <li><i>v. Personal development</i></li> </ul> <p><i>j) Conclusion:</i>  <i>Review lesson with learners by asking them in their various groups to summarise what they learned. Commend learners for their participation.</i></p> <p><i>k) Evaluation:</i></p> <ul style="list-style-type: none"> <li><i>i. Class Exercise</i> <ul style="list-style-type: none"> <li>➤ <i>Describe at least three activities that degrade the environment</i></li> <li>➤ <i>Describe at least three effects of degradational activities on human life</i></li> <li>➤ <i>Identify at least three steps that can be taken to reduce environmental degradation</i></li> </ul> </li> <li><i>ii. Assignment:</i>  <i>Write an article on the topic “solving environmental degradation problems in my community” for publication in the Junior Graphic.</i></li> <li><i>iii. Group Project</i>  <i>In your groups, identify an environmental challenge in the school. Plan strategies for solving it, implement the strategy and present your report using varied media at the end of the term.</i></li> </ul> <p><i>l) Remarks:</i></p>	
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<p><b>3. Modelling a teaching activity, making links with the Pre-Tertiary Curriculum and using GESI, SEL, ICT and 21<sup>st</sup> century skills</b></p>	<p>3.1 Identify in the sample lesson plan, activities that could promote SEL, GESI, ICT, 21<sup>st</sup> century skills and differentiation (NTS 3c, 3e - 3g). <i>E.g.</i> <i>Learners were encouraged to say positive things about their colleagues (SEL, 21<sup>st</sup> century skills), etc.</i></p> <p>3.2 Recommend other appropriate assessment strategies that are SEL responsive (NTS 1a, 2e, 3f and 3m). <i>E.g.</i> <i>Peer assessment, etc.</i></p> <p>3.3 Suggest two ways in which ICT can be used in promoting SEL during lessons (NTS 3j). <i>E.g.</i> <i>Using print material/pictures that depict friendliness, collaboration and inclusiveness, etc.</i></p> <p>3.4 Model a teaching activity based on the sample lesson plan that can support learners who may struggle identifying the steps that can be taken to reduce environmental degradation at the appropriate level, taking into consideration SEL, GESI, ICT, 21<sup>st</sup> century skills and differentiation (NTS 1a, 2c).</p> <p>3.5 Provide feedback on the lesson delivered (NTS 3n, 3o).</p>	<p>30 mins</p>
<p><b>4. Evaluation and review of session:</b></p> <ul style="list-style-type: none"> <li>● <b>Noting that teachers need to identify colleagues to observe lessons and report at the next session</b></li> </ul>	<p>4.1 In your group, reflect, write and share what you have learned with the larger group with regard to the concept, benefits and application of SEL in the school environment (NTS 1a, 1b).</p> <p>4.2 Where possible, identify a critical friend to observe your lesson and provide feedback to you on how you have used SEL in your lesson. (NTS 1a, 3l and 3n).</p> <p>4.3 Read PLC Session 4 in preparation for the next session.</p>	<p>10 mins</p>

## PLC Session 4: Introduction to the National Teachers' Standards

	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session.</i>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>social and emotional learning</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>social and emotional learning</i>, supported learning.</p> <p>1.3 Note the information on the session and remember the relationship between Session 3 and the subsequent sessions.</p> <p>1.4 Read the learning outcomes (LOs) and learning indicators (LIs) of the session.</p> <p>LO 1: Demonstrate knowledge and understanding of the domains and sub-domains of the NTS.</p> <p>LI 1.1 State the three domains of the NTS.</p> <p>LI 1.2 State the sub-domains of each domain.</p> <p>LI 1.3 Match the sub-domains to their respective domains.</p>	30 mins

	<p>LO 2: Identify the characteristics of the domains and sub-domains of the NTS.  LI 2.1 Discuss the characteristics of the domains.  LI 2.2 Draw a diagram to indicate all the domains and their characteristics.</p> <p>LO 3: Demonstrate knowledge and understanding of the philosophy of the NTS and describe its structure and content.  LI 3.1 State the philosophy of the NTS and list the various documents that inform the philosophy of the NTS.  LI 3.2 Explain how the following documents inform the philosophy of the NTS.</p> <ul style="list-style-type: none"> <li>a) Education Act, 2008 (Act 778) repealed with Education Regulatory Bodies Act, 2020 (Act 1023)</li> <li>b) Pre-tertiary Teacher Professional Development and Management Policy (PTPDM)</li> <li>c) Continental Education Strategy for Africa (CESA)</li> <li>d) Sustainable Development Goals (SDGs).</li> </ul> <p>LI 3.3 Discuss the structure of the NTS.  LI 3.4 Examine the content of the NTS.</p>	
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	<p>LO 4: Demonstrate knowledge and understanding of the relevance of cross-cutting issues including Gender Equality and Social Inclusion (GESI), Information and Communications Technology (ICT) and 21<sup>st</sup> century skills and competencies in the NTS.</p> <p>LI 4.1 Identify key cross-cutting issues in the NTS.</p> <p>LI 4.2 Explain how the cross-cutting issues affect teacher professionalism.</p> <p>LI 4.3 Share experiences on the cross-cutting issues in the classroom.</p> <p>LI 4.4 Identify the relevant GESI responsive and ICT resources for teaching and learning.</p> <p>LO 5: Analyse how the NTS can guide the planning, teaching and assessment of lessons in secondary schools.</p> <p>LI 5.1 Give examples of how to take cognizance of diverse learners' backgrounds in planning and teaching.</p> <p>LI 5.2 Give examples of varied teaching methods that can address the learning need of learners with different backgrounds.</p> <p>LI 5.3 Integrate a variety of assessments modes into teaching to support learning.</p> <p>LI 6.3 Use assessment data to improve teaching and learning.</p>	
<p><b>Give regard for the domains and subdomains of the NTS, etc.</b></p>	<p>1.5 Discuss what you know about the NTS. <i>E.g. The Standards describe values, attitudes, what teachers should know and be able to do, and use these to support the on-going development of teachers.</i></p> <p>1.6 Read the Table of Contents of the NTS (Refer to NTS Guidelines, n.d., p. 4).</p> <p>1.7 Discuss the following in groups and share your findings with the larger group.</p> <ol style="list-style-type: none"> <li>a) What do the Standards stand for? (Refer to In-service NTS Guidelines, n.d., p. 6).</li> <li>b) Who are the Standards for? (Refer to In-service NTS</li> </ol>	<p>10 mins</p>

	<p>Guidelines, n.d., p. 8).</p> <p>c) How were the Standards developed? (Refer to In-service NTS Guidelines, n.d., p. 9).</p> <p>d) What is the legal status of the teachers' Standards? (Refer to In-service NTS Guidelines, n.d., p. 10).</p> <p>e) What philosophy underpins the Standards? (Refer to In-service NTS Guidelines, n.d., p. 11).</p> <p>1.8 Identify the Domains and the Sub-Domains. (Refer to In-service NTS Guidelines, n.d., pp. 12-15).</p> <p>1.9 Think-pair-share on how the Standards are to be used and the role of Teacher Education Institutions. (Refer to In-service NTS Guidelines, n.d., pp. 16- 17).</p> <p>1.10 Discuss the format of the Standards in your groups. (Refer to In-service NTS Guidelines, n.d., pp. 19-32).</p> <p>1.11 Identify and discuss the evidence that a teacher has met or can meet the Standards at the appropriate level by looking at the teacher's professional portfolio. (Refer to In-service NTS Guidelines, n.d., pp. 34-35).</p> <p><b>Evidence criteria:</b>  <i>E.g.</i>  <i>Assignment, etc.</i></p> <p>1.12 Identify and discuss the competency requirements of the various ranks in the Ghana Education Service. (Refer to In-service NTS Guidelines, n.d., pp. 38-39).</p>	
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the secondary school curriculum</b></p>	<p>2.1. Think-square-share and prepare an outline of a lesson plan that can be used to teach a lesson to the NTS in a particular subject in any class (NTS 3a).  <i>E.g., Sample lesson plan in Social Studies:</i></p> <p><i>Refer to Social Studies Teaching syllabus 2010 Year 1.</i>  <i>An example of an outline plan for teaching based on the 2010 SHS Social Studies Syllabus*.</i></p> <p>a) <i>Topic: Self Identity</i>  b) <i>Sub-topic: Actions of False Identity</i>  c) <i>Objectives: By the end of the lesson the learner will be able to:</i>  i. <i>Explain the term self</i>  ii. <i>Identify at least two actions of false identity and their related problems</i>  d) <i>Relevant previous knowledge: Students know themselves.</i></p>	<p>20 mins</p>

	<p>e) <i>Introduction: Ask students to describe themselves.</i></p> <p>f) <i>Tasks/activities:</i></p> <ul style="list-style-type: none"> <li>i. <i>Discuss with learners, the concept of <b>self</b> in relation to their capabilities.</i></li> <li>ii. <i>Group learners to identify actions of false identity and their related problems.</i></li> </ul> <p>g) <i>Core points:</i></p> <ul style="list-style-type: none"> <li>i. <i>Self is the whole being of an individual, taking into consideration their personal and psychological nature and abilities.</i></li> <li>ii. <i>Some students pretend to be what they are not, e.g. they want to show off that they come from well to do families while it is not the case.</i></li> </ul> <p>h) <i>Core competencies:</i></p> <ul style="list-style-type: none"> <li>i. <i>Communication and collaboration</i></li> <li>ii. <i>personal development and leadership</i></li> </ul> <p>i) <i>Conclusion: Use questions and answers to summarise the lesson with learners</i></p> <p>j) <i>Evaluation:</i></p> <ul style="list-style-type: none"> <li>i. <i>What is self?</i></li> <li>ii. <i>What is the meaning of false identity?</i></li> <li>iii. <i>Mention two examples of false identity.</i></li> <li>iv. <i>Mention two problems that can result from false identity.</i></li> </ul> <p><b>Note:</b>  <i>*Teachers would be guided to tease out the learning outcomes and learning indicators from the lesson, so they know the relationship between lesson objectives and learning outcomes</i></p>	
<p><b>3. Teaching, learning and assessment</b></p> <p>► <b>Noting opportunities for making explicit links to the Secondary School Curriculum</b></p> <p>► <b>Noting opportunities for integrating: GESI &amp; SEL</b></p>	<p>3.1 Tease out the learning outcomes and the learning indicators from the sample lesson plan and explain how they are related to the objectives (NTS 3h).</p> <p><i>E.g.</i>  <i>LO: Demonstrate knowledge and understanding of self-identity.</i></p> <p><i>LI 1.1 Explain the term self</i></p> <p>3.2 Brainstorm to come up with how the NTS can help to promote the delivery of lessons in the secondary school curriculum (NTS 3e, 3f, 3g, 3h, 3i and 3j).</p> <p><i>E.g.</i>  <i>NTS 3e: Employs a variety of instructional strategies that encourage student participation and critical thinking such as demonstration, peer teaching enquiry based teaching, role play, etc.</i></p>	<p>20 mins</p>

<p><b>responsiveness and ICT and 21<sup>st</sup> C skills</b></p>	<p>3.3 Refer to the NTS guidelines and discuss how the Standards are linked to the use of formative assessment (assessment for learning and assessment as learning) tools and summative assessment (assessment of learning) practices in your respective subject areas (NTS 3k, 3l, 3m, 3n, 3o and 3p).</p> <p><b>Note:</b>  <i>NTS 3k: Integrates a variety of assessment modes into teaching to support learning.</i>  <i>E.g.</i>  <i>a) Class exercise</i>  <i>b) Project work, etc.</i></p> <p>3.4 Present your work for feedback from the larger group</p>	
<p><b>4. Evaluation and review of session:</b></p> <p>► <b>Teachers need to identify critical friends to observe lessons and report at next session</b></p>	<p>4.1 Reflect and share what you have learnt about the NTS.</p> <p>4.2 Remember to identify a critical friend to observe you in your lessons in relation to PLC Session 4 and provide feedback at the next PLC session.</p> <p>4.3 Remember to read Session 5 from the PLC Handbook in preparation for the next PLC session.</p>	<p>10 mins</p>

<b>PLC Session 5: Professional Development</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session.</i>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>the National Teachers' Standards</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>gender equality and social inclusion</i>, supported learning.</p> <p>1.3 Read Standards 1a, 1b, and 1c under Professional Values and Attitudes of NTS and deduce possible learning outcomes (LOs) and learning indicators (LIs) of the session before reading the LOs and LIs listed for the session.</p> <p><b>Note:</b> LO: Learning Outcome: <i>This is the expected knowledge, understanding, skills, etc., to be acquired at the end of a lesson (Common Core Programme Curriculum).</i></p> <p>LI: Learning Indicator: <i>This is the practical evidence that learning has taken place. It may include verbal responses, practical activity or products (Common Core Programme Curriculum).</i></p> <p>LO 1: Demonstrate ability to improve teaching and learning critically and collectively (NTS 1a, 3e and 3k). LI 1.1 List strengths and limitations of own practice (NTS 1a). LI 1.2 Critique peers' practice using lesson notes, reflective logs, journals, portfolios, etc. (NTS 1a).</p>	30 mins

	<p>LO 2: Demonstrate knowledge and understanding of how to improve own personal and professional development through lifelong learning and continuous professional development (1b, 1d).</p> <p>LI 2.1 Identify gaps in knowledge to improve own personal development (go beyond the textbook and show evidence of the use of the library, internet, mentor /resource person’s inputs, etc.).</p> <p>L1.2.2 Identify gaps in own knowledge to improve professional development (go beyond the textbook and show evidence of the use of the library, internet, mentor /resource person’s inputs, etc.).</p> <p>LO 3: Demonstrate skills in effective leadership qualities both in the classroom and wider school community (NTS 1c, 1f).</p> <p>LI 3.1 Model given roles.</p> <p>LI 3.2 Delegate roles taking into consideration Gender Equality Social Inclusion (GESI) (NTS 3f, 3g).</p>	
<p><b>Give regard for misconceptions, stereotypes, GESI, SEL, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.4 Discuss and relate the concept of professional development to your various subjects (NTS 1b, 1c,1d and 1f). <i>E.g.</i> <i>Working with other teachers to exchange ideas at professional learning community sessions</i></p> <p>1.5 Identify further areas of professional development that will enhance your teaching of Science (NTS 1b, 1c and 3a). <i>E.g.</i> <i>Universities provide opportunities for further studies in the subject areas</i></p> <p>1.6 Identify possible misconceptions and stereotypes in Science (NTS 3m). <i>E.g. (Science)</i> <i>Science is for students with very high IQ, etc.</i></p> <p>1.7 Discuss possible ways to mitigate these misconceptions and stereotypes in your subject area (NTS 3i). <i>E.g. (Science)</i> <i>Invite role models / resource persons that have overcome these stereotypes and have achieved successes in the Science domains in the society to share their experiences to encourage the learners</i></p>	<p>10 mins</p>

	<p>1.8 In mixed gender groupings (where possible) list some 21<sup>st</sup> century skills (NTS 3e, 3f and 3g). E.g. <i>Communication skills, etc.</i></p> <p>1.9 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills in your learners (NTS 3j).  <b>Communication skills</b> e.g., <i>group discussion, role-play, presentation, etc.</i></p> <p>1.10 Identify ways of incorporating ICT in your lessons (NTS 3j). E.g. <i>Surfing OERs and other internet sources for information</i></p>	
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the secondary school curriculum</b></p>	<p>2.1 Discuss samples of your lesson topics in your various subject areas and link them to the concepts of LOs and LIs (NTS 3a, 3b). E.g. <i>Sample lesson topics in Science domains:</i></p> <p><i>Domain: Physics</i></p> <p><i>Topic: Scientific Measurement Sub-topic: S.I. Units - Basic units and Derived units of measurement</i></p> <p><i>Domain: Biology Topic: Cells</i></p> <p><i>Sub-topic: Plant Cell and Animal Cell</i></p> <p><i>Domain: Chemistry Topic: Matter</i></p> <p><i>Sub-topic: The building blocks of matter</i></p> <p><i>Domain: Agricultural Science</i></p> <p><i>Topic: Rocks</i></p>	<p>20 mins</p>

	<p><i>Sub-topic: Major types of rocks and their formation</i></p> <p><i>An example of an outline of a lesson plan based on the 2010 Senior High School Syllabus for teaching the topic Scientific Measurements. *</i></p> <p><b>a) Topic:</b> <i>Scientific Measurement</i></p> <p><b>b) Sub-topic:</b> <i>S.I. Units - Basic units and Derived units of measurement</i></p> <p><b>c) Objectives:</b> <i>By the end of the lesson, the learner will be able to:</i></p> <ul style="list-style-type: none"> <li><i>i. Use S.I. units in measurement</i></li> <li><i>ii. Differentiate between basic units and derived units of measurement</i></li> <li><i>iii. Give 5 examples of basic units of measurement</i></li> </ul> <p><b>d) Relevant previous knowledge:</b> <i>Learners have been measuring things around them.</i></p> <p><b>e) Introduction:</b>  <i>Group learners, bearing in mind GESI and ask each group to discuss and write the things we measure in daily life and share with the whole the class.</i>  <i>Remind each group to appoint a leader and a secretary. The leader will do the sharing on behalf of the group.</i>  <i>In groups, lead learners to discuss and write the aspects of the things identified that are measured.</i></p>	
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**f) Tasks/activities:**

- i. Present a set of materials (e.g., watch, tape measure, etc) to learners. and brainstorm with them what the materials are used to measure)
- ii. Discuss with learners the use of S.I. units in measurement.
- iii. Discuss with class the differences between basic units and derived units of measurement.
- iv. brainstorm with learners to give examples of basic units of measurements.

**g) Closure:**

Ask learners to reflect on the following questions:  
What have you learnt today? How are you going to apply what you have learnt today in everyday life?

**h) Evaluation:**

- i. Match the following quantities with their right units of measurement.

S/N	QTY	S.I. UNITS
1	time	Metre (m)
2	mass	Metre square (m <sup>2</sup> )
3	volume	Kelvin (K)
4	length	Kilogram (Kg)
5	area	Cubic Metre (m <sup>3</sup> )
6	temperature	Second (S)

**i) Content**

Some of the things in the environment we measure include:  
trees, tables, human beings,  
playing field, food, water, etc.

	<p><i>Aspects of these things that can be measured are:</i></p> <ol style="list-style-type: none"> <li><i>i. Tree - height</i></li> <li><i>ii. Table - length, breadth and height</i></li> <li><i>iii. Human being - height and mass</i></li> <li><i>iv. Food - mass, etc</i></li> </ol> <p><i>The S.I. Units for these measurements are:</i></p> <p><i>height measured in metres (m) mass measured in kilogram (Kg)</i></p> <p><i>volume measured in cubic metre /cubic centimetre (<math>m^3/c^3</math>) electric current measured in ampere (A)</i></p> <p><i>time measured in second(s)</i></p> <p><i>The main difference between Basic Units and Derived Units of measurement is that basic units are fundamental units of measurement that are generally recognized and accepted all over the world as units of measurement while derived units are units of measurement obtained by the multiplication or division of the basic units of measurement.</i></p> <p><i>Examples of Basic Units of measurement are:</i></p> <ol style="list-style-type: none"> <li><i>i. Kilogram for mass</i></li> <li><i>ii. Second for time</i></li> <li><i>iii. Kelvin for temperature</i></li> <li><i>iv. Candela for light intensity</i></li> <li><i>v. Mole for amount of substance</i></li> <li><i>vi. Ampere for electrical current</i></li> <li><i>vii. Metre for length</i></li> </ol> <p><b>j) Core Competencies:</b></p> <ol style="list-style-type: none"> <li><i>i. Communication and Collaboration</i></li> <li><i>ii. Personal Development and Leadership</i></li> <li><i>iii. Critical Thinking and Problem Solving</i></li> </ol> <p><i>*Teachers will be guided to tease out the learning outcomes and the learning indicators from the sample lesson plan</i></p>	
<p><b>3.0 Teaching, learning and assessment</b></p> <p><b>Reading and discussion of the teaching and learning activities</b></p>	<p>3.1 Deduce the learning outcomes and the learning indicators from the sample lesson plan and compare them with the objectives of the lesson.</p> <p><i>E.g.</i></p> <p><i>LO: Demonstrate sound knowledge and understanding of scientific measurement.</i></p> <p><i>LI 1.1 Use S.I. units in measurement</i></p>	<p>30 mins</p>

<p>► <b>Noting opportunities for making explicit links to the Secondary School Curriculum</b></p> <p>► <b>Noting opportunities for integrating: GESI &amp; SEL responsiveness and ICT and 21<sup>st</sup> C skills</b></p>	<p><i>LI 1.2 Differentiate between basic units and derived units of measurement.</i></p> <p>3.2 Identify gaps in your sample lesson plans and discuss possible ways of addressing same (NTS 3a). E.g. <b>Possible gaps:</b> <i>absence of a prescribed textbook, etc.</i> <b>Possible Solution:</b> <i>use of a library, OERs and other internet facilities, etc.</i></p> <p>3.3 Suggest alternative ways of delivering the sample lessons (NTS 3e). E.g. <i>use of flipped classroom ( “school work at home and home work at school”)</i></p> <p>3.4 Indicate how you will promote GESI and SEL responsiveness in the lesson (NTS 2f, 3a, 3f and 3g). E.g. <i>a) Classroom arrangement that facilitates interaction between all learners</i></p> <p>3.5 Discuss how the session is linked to the use of formative assessment tools and practices, e.g., assessment <b>for learning</b> and assessment <b>as learning</b> (NTS 3k, 3l). E.g. <i>Learners brainstorming to give examples of basic units of measurements.</i></p> <p>3.6 In groups, suggest other authentic assessment methods that could be used in your planned lesson taking GESI and SEL into account (NTS 3p). E.g. <i>Self-assessment</i></p> <p>3.7 List and discuss how the lesson makes use of resources to support relevant activities in the NTS (NTS 3j). E.g. <i>Pre-recorded videos</i></p> <p>3.8 Model a teaching activity in the sample lesson plan. <b>(EXTENSION ACTIVITY)</b></p>	
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<p><b>4. Evaluation and review of session:</b></p> <p>► <b>Teachers need to identify critical friends to observe lessons and report at next session</b></p>	<p>4.1 Reflect and write what you have learnt in the session (NTS 1a, 3l and 3n).</p> <p>4.2 Share what you have learnt with the larger group.</p> <p>4.3 Identify a critical friend to observe you in teaching your lessons in relation to PLC session 5 and provide feedback at the next PLC Session.</p> <p>4.4 Read Session 6 from the PLC Handbook in preparation for the next session.</p>	<p>15 mins</p>
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<b>PLC Session 6: Community of Practice</b>		
	Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the sessions</i>	Time in session
<b>1. Review of Previous Session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>professional development</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>professional development</i>, supported learning.</p> <p>1.3 Read Standards 1d,1e, 1f and 1g under <i>Professional Values and Attitudes</i> of the NTS and deduce possible learning outcomes (LOs) and learning indicators (LIs) for the session before reading the LOs and LIs (listed below) for the session.</p> <p><b>Note:</b>  LO: Learning Outcome: <i>This is the expected knowledge, understanding, skills, etc., to be acquired at the end of a lesson (Common Core Programme Curriculum).</i></p> <p>LI: Learning Indicator: <i>This is the practical evidence that learning has taken place. It may include verbal responses, practical activity or products (Common Core Programme Curriculum).</i></p> <p>LO 1: Demonstrate knowledge and understanding of ethical, legal, and professional code of conduct (NTS 1d).  LI 1.1 Mention at least three Ministry of Education (MoE)/Ghana Education Service (GES) ethical codes of conduct for teachers.</p> <p>LI 1.2 discuss the duties and responsibilities of a teacher.</p>	30 mins

	<p>LI 1.3 List the dos and don'ts of the teaching profession.</p> <p>LO 2: Demonstrate knowledge, understanding and skills in establishing and maintaining a cordial relationship with staff, learners, and the entire school community (NTS 1e).</p> <p>LI 2.1 Analyse ways by which teachers can establish and maintain cordial relationships with staff, learners and the school community.</p> <p>LI 2.2 Discuss by which teachers can be involved in community activities.</p> <p>LI 2.3 State ways by which teachers can participate in school activities.</p> <p>LO 3: Demonstrate knowledge, understanding and skills in establishing a positive teacher identity and acting as a good role model (NTS 1f).</p> <p>LI 3.1 Discuss at least five qualities of a good teacher.</p> <p>LI 3.2 List sources or records of class attendance by teachers.</p> <p>LO 4: Demonstrate knowledge, skills and understanding of the teacher's roles as a potential agent of change in the school, community and the nation (NTS 1g).</p> <p>LI 4.1 List at least four ways by which a teacher can be seen as a change agent in the school, community and the nation.</p> <p>LI 4.2 Give examples of challenges of the school and the community and suggest possible solutions.</p> <p>1.4 List at least three ethical codes of conduct for teachers in the Ghana Education Service (NTS 1d). <i>E.g.</i> <i>Teachers should be punctual to class, etc.</i></p> <p>1.5 Discuss at least three duties and responsibilities of a teacher (NTS 1d). <i>E.g.</i> <i>Prepare relevant and adequate teaching notes, etc.</i></p>	
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	<p>1.6 List at least four dos and four don'ts of the teaching profession (NTS 1d).  <i>E.g.</i>  <i>Dos:</i>  <i>Do teach and give class exercises, etc.</i>  <i>Don'ts</i>  <i>Don't exploit the vulnerability of learners, etc.</i></p> <p>1.7 Analyse at least four ways by which you can establish and maintain cordial relationships with staff, learners and the school community (NTS 1e).  <i>E.g.</i>  <i>Read the teachers' code of ethics, etc.</i></p> <p>1.8 Discuss at least four ways by which you can be involved in community activities (NTS 1e).  <i>E.g.</i>  <i>Take part in community durbars</i></p> <p>1.9 Discuss at least five qualities of a good teacher (NTS 1f).  <i>E.g.</i>  <i>Be a good communicator, etc.</i></p> <p>1.10 List at least three sources of records to monitor the attendance of teachers (NTS 1f).  <i>E.g.</i>  <i>Clock-in and out machine, etc.</i></p> <p>1.11 List at least four ways by which a teacher can be seen as an agent of change in the school, community and the nation (NTS 1g).  <i>E.g.</i>  <i>Promote inclusion and tolerance of all learner, etc.</i></p> <p>1.12 Identify at least two challenges of the school and the community and suggest possible solutions (NTS 1g).  <i>E.g.</i>  <b>School Challenges and solutions:</b>  <i>Accommodation challenges – seek support from PA, District Assembly and other benevolent organizations, etc.</i></p> <p><b>Community Challenges and solutions:</b>  <i>Teenage pregnancies – awareness creation/education to both learners and community, etc.</i></p>	
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<p><b>Give regard for possible misconceptions and stereotypes, GESI, SEL, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.13 Identify possible misconceptions in your various subject areas.  <i>E.g. (English)</i>  <i>Females are more fluent in English than males, etc.</i></p> <p>1.14 Discuss possible ways to mitigate these misconceptions and stereotypes in teaching the various subjects.  <i>E.g.</i>  <i>Organize orientations to sensitize all learners on the benefits of the study of English Language by all categories of learners, etc.</i></p> <p>1.15 Identify ways of incorporating ICT in your lessons.  <i>E.g.</i>  <i>a) Employ computer assisted approaches such as surfing Open Educational Resources (OERs), Encarta Encyclopedia, Google classroom, etc., in teaching English Language</i>  <i>b) Employ computer software such as Sunflower, Microsoft office, AnswerGarden, BrainPOP, Mathkids, etc., in teaching Mathematics and Science related subjects</i></p> <p>1.16 Mention and Discuss your lists of 21<sup>st</sup> century Skills (from 1.16 above) and how they can support community of practice.  <i>E.g.</i>  <i>a) Critical thinking:</i>  <i>Teamwork, assigning tasks, brainstorming, etc.</i>  <i>b) Research skills:</i>  <i>Google search, group work and other research tools, etc.</i></p> <p>1.17 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills in their learners.  <i>E.g.</i>  <i>Communication skills, collaboration, observation and enquiry skills, digital literacy, creativity, personal development skills, etc., can be developed in learners using; group discussion, etc.</i></p>	<p>10 mins</p>
<p><b>2. Planning for teaching, learning and</b></p>	<p>2.1 Discuss samples of your lesson plans in your various subject areas and link them to the NTS, particularly to community of practice (NTS 1d, 1e, 1f and 1g).</p>	<p>20 mins</p>

<p><b>assessment activities for the lesson/s making links to secondary school curriculum</b></p>	<p><i>An example of an outline of Lesson Plan based on the 2010 Senior High School Syllabus in English Language *</i></p> <p>a) <b>Aspect:</b> Writing</p> <p>b) <b>Topic:</b> Debate writing</p> <p>c) <b>Sub-topic:</b> Format of debate writing</p> <p>d) <b>Objectives:</b>  <i>By the end of the lesson, the learner will be able to;</i></p> <ul style="list-style-type: none"> <li>i. <i>explain the term debate</i></li> <li>ii. <i>list the features of a debate</i></li> <li>iii. <i>write a good debate using the features</i></li> <li>iv. <i>present a debate.</i></li> </ul> <p>e) <b>RPK:</b> Learners argue on issues of interest.</p> <p>f) <b>Introduction/pre-writing stage:</b> Introduce the lesson by asking learners to;</p> <ul style="list-style-type: none"> <li>i. <i>brainstorm (in two mixed gender groups), on which of these two people is more important – a farmer and a teacher</i></li> <li>ii. <i>share their opinions with the wider class</i></li> </ul> <p>g) <b>Tasks/Activities/ Writing Stage:</b></p> <ul style="list-style-type: none"> <li>i. <i>In mixed gender groups, let learners brainstorm and come out with the meaning of debate.</i></li> </ul> <p><b>Note:</b>  <i>A debate is a formal discussion or a process that involves a formal discourse of a particular topic often including a moderator and audience, etc. Also, it is an organized argument between two opposing sides on a given topic with some agreed modalities</i></p>	
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	<p>ii. <i>Through a discussion method, guide learners to identify the features of a debate.</i>  <i>Note:</i>  <i>A debate has three main features.</i>  <b>Introduction:</b> <i>(Vocatives, motion and declaration of stand)</i>  <b>Body:</b> <i>(Explanation of key terms or words of the motion, rebuttal of opponent points, state your main points, etc.)</i>  <b>Conclusion:</b> <i>(Summarize main points in the body, call for support, etc.)</i></p> <p>iii. <i>In two groups, introduce a debate topic for learners and guide them to develop a good debate using the features of a debate.</i>  <i>E.g.</i>  <i>“Female education is the panacea for the country’s underdevelopment”</i></p> <p>iv. <i>Allow the groups to select their members to present their debate in the class.</i></p> <p><b>h) Core Points:</b>  <i>Writing skills, speaking skills, listening skills, critical thinking, etc.</i></p> <p><b>i) Closure:</b>  <i>Review the lesson by asking the learners to mention what they have learnt</i></p> <p><b>j) Evaluation</b></p> <p>i. <i>What is a debate?</i>  ii. <i>List the features of a debate</i>  iii. <i>Write a debate for or against the motion: “The extraction of Ghana’s mineral resources has caused more harm than good” and submit in the next lesson.</i></p> <p><b>k) Remarks:</b>  <i>*Teachers would be guided to tease out the learning outcomes and learning indicators from the lesson.</i></p>	
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<p><b>3. Teaching, learning and assessment</b></p> <p>► <b>Noting opportunities for making explicit links to the Secondary School Curriculum</b></p>	<p>3.1 Tease out the learning outcomes and learning indicators from the sample lesson plan above.</p> <p>LO: Demonstrate knowledge and understanding of a debate and its features.</p> <p>LI 1.1 Explain the term debate, etc.</p> <p>3.3 Suggest alternative ways of delivering the sample lesson. <i>E.g.</i> <i>Use YouTube videos or pre-recorded videos on academic and political debates etc.</i></p> <p>3.4 Review the sample lesson plans to identify activities that promote GESI and SEL responsiveness. <i>E.g.</i> <i>Using classroom arrangement that facilitates interaction among all learners, etc</i></p> <p>3.5 Discuss how the session is linked to the use of formative assessment tools and practices i.e., assessment <b>for</b> learning and assessment <b>as</b> learning. <i>E.g.</i></p> <ul style="list-style-type: none"> <li><i>a) Use assessment to diagnose learners' needs <b>(for)</b></i></li> <li><i>b) Use assessment to review learners' progress <b>(for)</b></i></li> <li><i>c) Encourage self-assessment <b>(as), etc.</b></i></li> </ul> <p>3.6 List and discuss how the session makes use of resources to support relevant activities in the NTS. <i>E.g.</i> <i>OERs/Internet facilities, etc.</i></p> <p>3.7 Model a teaching activity in the sample lesson plan. <b>(EXTENSION ACTIVITY)</b></p>	<p>20 mins</p>
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<p><b>4. Evaluation and review of session:</b></p> <p>► <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></p>	<p>4.1 Reflect and write what you have learnt in the session.</p> <p>4.2 Share what they have learnt with the larger group.</p> <p>4.3 Identify a critical friend to observe you in teaching your lesson in relation to PLC Session 6 and provide feedback at the next PLC session.</p> <p>4.4 Read Session 7 from the PLC Handbook in preparation for the next session.</p>	<p>10 mins</p>
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<b>PLC Session 7: Knowledge of Educational Frameworks and Curriculum</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i></b>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>professional development</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>community of practice</i>, supported learning.</p> <p>1.3 Read National Teachers' Standards (NTS 2a, 2b, 2c and 2d) under <i>Professional Knowledge</i> of the NTS and deduce possible learning outcomes (LOs) and learning indicators (LIs) for the session before reading the LOs and LIs (listed below) for the session.</p> <p>LO1: Exhibit familiarity with the education system and key policies guiding it (NTS 2a, 2b).</p> <p>LI 1.1 State the similar characteristics of key educational policies</p> <p>LI 1.2 State two differences in key educational policies</p> <p>LI 1.3 Explain expected outcomes of educational curricula</p> <p>LI 1.4 Analyse the importance of educational frameworks.</p> <p>LO 2: Demonstrate comprehensive knowledge of the official school curriculum, including learning outcomes (NTS 2b, 3o).</p> <p>LI 2.1 Discuss issues that surround the implementation of the curriculum for vulnerable groups (NTS 3f, 3g and 3m)</p> <p>LI 2.2 Describe how gender inequalities can affect learner outcomes.</p> <p>LI 2.3 Outline how learners need to work towards achieving higher examination grades.</p> <p>LO 3: Show command of content knowledge, pedagogical knowledge and pedagogical content knowledge (NTS 2c).</p> <p>LI 3.1 State how gaps in subject and pedagogical knowledge of teachers can be identified and addressed</p> <p>LI 3.2 Explain how children develop and learn in diverse contexts and apply this in teaching</p> <p>LI 3.3 Describe how to organize learning using teacher and learner centred and gender responsive pedagogies.</p>	30mins

	<p>LO 4: Demonstrate knowledge of how to teach numeracy and literacy in multi-grade classrooms at the early grade level (NTS 2d).</p> <p>LI 4.1 Plan and teach using differentiated instruction</p> <p>LI 4.2 Guide learners to perform mathematical operations using manipulatives</p> <p>LI 4.3 Guide learners to read and write using an appropriate language teaching tool.</p> <p>1.4 State the similar characteristics of key educational policies. <i>E.g. Each policy has items including: Preamble, etc.</i></p> <p>1.5 In groups, discuss the differences in key educational policies. <i>E.g., Content of policy depends on rationale, objectives, outcomes, etc.</i></p> <p>1.6 Identify expected outcomes of some educational policies. <i>E.g.</i> <i>The Pre-Tertiary Teacher Professional Development and Management (PTPDM) provides the framework for developing standards, core values and ethics for the teaching profession, etc.</i></p> <p>1.7 Write some of the expected outcomes of any educational curriculum in Ghana. <i>E.g.</i> <i>The Senior High School mathematics curriculum is aimed at developing individuals to become mathematically literate, etc, (Mathematics Syllabus for SHS, 2010).</i></p> <p>1.8 Discuss the benefits of educational frameworks. <i>E.g.</i> <i>Educational frameworks are models for course designed that help teachers to align learning goals with classroom activities, etc.</i></p> <p>1.9 Indicate what a teacher needs to do to demonstrate knowledge of educational frameworks and curriculum. <i>E.g.</i> <i>Show comprehensive knowledge of the official school curriculum, including learning outcomes, etc.</i></p>	
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<p><b>Give regard for misconceptions and stereotypes, GESI, SEL, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.10 Identify possible misconceptions and stereotypes in learning various subjects  E.g. <i>(Mathematics)</i>  <i>If one wants to be good at mathematics, one must memorize lots of facts and formulas, etc.</i></p> <p>1.11 Discuss how these misconceptions about teaching and learning in mathematics classroom can be addressed.  E.g.  a) <i>Teachers should discover students’ systematic errors in mathematics, etc.</i></p>	<p>10 mins</p>
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to secondary school curriculum</b></p>	<p>2.1 Discuss samples of their lesson plans based on the SHS 2010 syllabuses in your respective subjects and link them to the NTS (NTS 3a, 3e, 3g and 3j).  <i>(E.g., Mathematics)</i>  <i>An example of an outline for teaching understanding Sets and Operations on Sets from the SHS 2010 Mathematics Syllabus*</i></p> <p>a) <b>Topic:</b> <i>Sets and Operations on Sets</i>  b) <b>Sub-topic:</b> <i>Finding the number of subsets in a set with N elements</i>  c) <b>Objective:</b> <i>Determine and write the number of subsets in a set</i>  d) <b>Relevant previous knowledge:</b> <i>students can describe sets</i>  e) <b>Introduction:</b> <i>Review with students the description of sets</i>  f) <b>Tasks/activities:</b>  i. <i>Present instructional resources (consider different learning styles in selection) and guide students to group them into various sets</i>  ii. <i>Guide learners in a discussion to find the number of subsets they can derive from the set of objects given</i>  iii. <i>In groups, let learners discuss to deduce a formula for finding the</i></p>	<p>20 mins</p>

	<p>number of subsets that can be derived in a given set. E.g. The  <b>Set</b> {aaaa} has two subsets {aaaa} and the { }</p> <p>iv. Guide students to create a table showing the relationship between elements in a set and the number of subsets</p> <p>g) <b>Core Points:</b> The number of subsets in a given set is calculated as <math>2^{nnnn}</math> where 'n' is the number of elements in the set</p> <p>h) <b>Core Competencies:</b> Collaboration, problem solving, critical thinking, etc.</p> <p>i) <b>Closure:</b> Review the lesson and ask evaluation questions</p> <p>j) <b>Evaluation:</b> Find the number of subsets in a set with 5 elements.</p> <p>* Teachers would be guided to tease out the LOs and the LIs from the sample lesson and compare with the objectives of the lesson.</p>	
<p><b>3. Teaching, learning and assessment</b></p>	<p>3.1 Identify gaps in their sample lesson plans and discuss possible ways of addressing them (NTS 1a, 3d, 3e, 3f, 3g and 3m).</p> <p>Examples of <b>possible gaps</b>:</p> <p>a) <i>Inadequate prescribed textbooks for mathematics,</i></p> <p>b) <i>Lack of gender responsive materials in the classroom, etc.</i></p>	<p>20 mins</p>

<p>► <b>Noting opportunities for making explicit links to the Secondary School Curriculum</b></p> <p>► <b>Noting opportunities for integrating: GESI &amp; SEL responsiveness and ICT and 21<sup>st</sup> C skills</b></p>	<p><b>Possible solutions:</b>  <i>Use of: a library</i></p> <p>3.2 Tease out the learning outcomes and learning indicators from the sample lesson plan.  <i>E.g.</i>  <i>LO: Demonstrate knowledge of the subsets in a set.</i>  <i>LI 1. Determine the number of subsets in a set</i></p> <p>3.3 Suggest alternative ways of delivering the sample lesson.  <i>E.g., Use of:</i>  <i>flipped classroom,</i></p> <p>3.4 Identify activities that promote GESI and SEL responsiveness in your sample lesson plans (NTS 3c, 3e, 3f and 3g).  <i>E.g.</i>  <i>Classroom arrangement that facilitates interaction, etc.</i></p> <p>3.5 Discuss how the session is linked to the use of formative assessment tools and practices for assessment for learning and assessment as learning (NTS 3k, 3l and 3m).  <i>E.g.</i>  <i>Self-assessment (as), etc.</i></p> <p>3.6 List and discuss how the sample lesson makes use of resources to support relevant activities in the NTS.  <i>E.g.</i>  <i>Posters on Sets,</i></p> <p>3.7 Model a teaching activity in the sample lesson plan. <b>(EXTENSION ACTIVITY)</b></p>	
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<p><b>4. Evaluation and review of session:</b></p> <p>► <b>Noting that teachers need to identify critical friends to observe lessons and report at next session</b></p>	<p>4.1 Reflect and write what you have learnt in the session. Using the 'Talk-to-the-hand' strategy, write five things learnt.</p> <p>4.2 Share what you have written with the larger group (NTS 1a).</p> <p>4.3 Identify a critical friend to observe your lessons in relation to PLC Session 7 and provide feedback at the next PLC session.</p> <p>4.4 Remember to read Session 8 from the PLC Handbook in preparation for the next session.</p>	<p>15 mins</p>
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<b>PLC Session 8: Knowledge of Learners</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session.</i>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>knowledge of educational frameworks and curriculum development</i>, which you think impacted learning positively.</p> <p>1. 2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>knowledge of educational frameworks and curriculum development</i>, supported learning.</p> <p>1.3 Read Standards 2e and 2f the NTS, the learning outcomes (LOs) and the learning indicators (LIs) of the session to set the stage for the session.</p> <p>LO 1: Demonstrate understanding of how students learn in diverse contexts (NTS 2e).  LI 1.1 Give examples of different contexts under which learners learn.  LI 1.2 Explain different contexts under which learners learn influence how they learn.</p> <p>LO 2: Demonstrate understanding of different learning styles of learners (NTS 2e).  LI 2.1 List at least three different learning styles.  LI 2.2 Analyse at least three different learning styles of learners.</p> <p>LO 3: Demonstrate knowledge and understanding of GESI (NTS 2e, 3f).  LI 3.1 Mention at least five GESI related issues in learning.  LI 3.2 Outline the need for incorporating GESI issues into classroom activities.</p>	30 mins

	<p>1.4 Discuss and relate the concept of knowledge of learner to your various subject domains (NTS 1a, 2e and 3i).</p> <p>1.5 Identify different learning styles of learners that will enhance teaching of your subjects (NTS 2e, 2f, 3e and 3g). <i>E.g.</i> <i>Auditory learning</i></p> <p>1.6 Discuss the different learning styles (listed in Activity 1.5) in a way that will enhance teaching of their subjects (NTS 2e, 2f, 3e and 3g). <i>E.g.</i> <i>Visual learning</i></p> <p><i>Learners need to be shown, not told. Colour, size and shape can be used to emphasise written information. Diagrams, mind maps, pictures and cartoons will all have good impact.</i></p>	
<p><b>Give regard for possible misconceptions and stereotypes, GESI, SEL, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.7 Identify possible misconceptions and stereotypes about your subject (NTS 3m). <i>E.g. (Social Studies)</i> a) <i>Social Studies is for students with very low IQ.</i></p> <p>1.8 Discuss possible ways to address these misconceptions and stereotypes in your subject areas in the classroom (NTS 3m). <i>E.g. (Social Studies)</i> <i>Invite a resource person to draw the attention of teachers and learners to the links between Social Studies and the other subjects.</i></p> <p>1.9 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills in your learners (NTS 2c, 3h and 3j). <i>E.g.</i> a) <b>Communication skills:</b> <i>E.g., group discussion providing opportunities for learners to develop oral presentation skills.</i> b) <b>Collaboration skills:</b> <i>E.g., group projects that will make use of the strengths of learners of different backgrounds.</i></p>	<p>10 mins</p>

<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the secondary school curriculum</b></p>	<p>2.1 Discuss samples of your lesson plans in your various subject areas that take different learning styles of learners into account (NTS 2e, 3a).</p> <p><i>E.g. Sample lesson plan in Social Studies: Refer to Social Studies Teaching syllabus 2010 Year 1.</i></p> <p><i>An example of an outline plan for teaching based on the 2010 SHS Social Studies Syllabus*.</i></p> <p><b>a) Topic:</b> National Independence and Self- reliance</p> <p><b>b) Sub-topic:</b> Political Independence</p> <p><b>c) Objectives:</b> By the end of the lesson, the learner will be able to;</p> <ol style="list-style-type: none"> <li>i. explain the term political independence.</li> <li>ii. state at least two reasons why Ghanaians misconstrued the implications of independence.</li> </ol> <p><b>d) Relevant Previous Knowledge (RPK):</b></p> <p>Learners have been taking part in 6<sup>th</sup> March activities.</p> <p><b>e) Introduction:</b> Discuss with learners what 6<sup>th</sup> March reminds them of.</p> <p><b>f) Tasks/activities:</b></p> <ol style="list-style-type: none"> <li>i. Ask learners to brainstorm the concept of political independence.</li> <li>ii. Put learners in mixed ability groups to discuss whether an independent nation should continue to rely on the colonial masters for their survival.</li> <li>iii. Ask each group to present their findings to the class using variety of resources.</li> </ol> <p><b>g) Core Points:</b></p> <ol style="list-style-type: none"> <li>i. Political independence means gaining self-rule from a colonial master thus entitling the new nation to govern itself.</li> <li>ii. Some people thought independence was an end in itself and was a time to amass wealth.</li> <li>iii. Some people believed that political independence was an answer to their economic woes.</li> </ol> <p><b>h) Core competencies:</b></p> <p>Critical thinking and problem solving, communication and collaboration, personal development and leadership, and digital literacy.</p>	<p>20 mins</p>
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	<p><b>i) Closure:</b> Use leading questions to review the lesson with learners.</p> <p><b>j) Evaluation:</b></p> <p>a) What is political independence? b) Explain at least 2 reasons why Ghanaians misconstrued the implications of independence.</p> <p>*Teachers would be guided to tease out the learning outcomes and the learning indicators from the sample lesson plan.</p>	
<p><b>3. Teaching, learning and assessment</b></p> <p>► <b>Noting opportunities for making explicit links to the Secondary School Curriculum</b></p>	<p>3.1 Tease out the learning outcomes and the learning indicators from the sample lesson plan (NTS 3h). E.g. <i>LO: Demonstrate understanding of the concept of political independence</i> <i>LI 1 Explain the term political independence.</i></p> <p>3.2 Review your sample lesson plans to identify activities that promote GESI responsiveness (NTS 3f, 3g). E.g. <i>Classroom arrangement that facilitates interaction among learner, etc.</i></p> <p>3.3 Discuss how the lesson is linked to the use of formative assessment tools and practices, e.g., <i>assessment for learning</i> and <i>assessment as learning</i> (NTS 3k, 3l). E.g. <i>Learners brainstorm the concept of political independence, and this provides opportunities for reflection and self-assessment (assessment as learning)</i></p> <p>3.4 List and discuss how the lesson could make use of resources to support relevant activities in the NTS (NTS 3j). E.g. <i>Pre-recorded videos, posters, etc.</i></p> <p>3.5 Model a teaching activity in the sample lesson plan (NTS 1a, 3a). <b>(EXTENSION ACTIVITY)</b></p>	<p>20 mins</p>

<p><b>4. Evaluation and review of session:</b></p> <ul style="list-style-type: none"> <li>▶ <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></li>   <li>▶ <b>Noting that teachers need to identify critical friends to observe lessons and report at next session</b></li> </ul>	<p>4.1 Reflect and write what you have learnt in the session.</p> <p>4.2 Share what you have learnt with the larger group.</p> <p>4.3 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 8 and provide feedback at the next PLC session.</p> <p>4.4 Read Session 9 from the PLC Handbook in preparation for the next session.</p>	<p>10 mins</p>
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<b>PLC Session 9: Managing the Learning Environment</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session.</i>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>knowledge of learners</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>knowledge of educational frameworks and curriculum development</i>, supported learning.</p> <p>1.3 Read Standards 3a, 3b, 3c and 3d under <i>Professional Practice</i> of the NTS and the learning outcomes (LOs) and learning indicators (LIs) of the session to set the stage for the session.</p> <p>LO 1: Demonstrate knowledge and understanding of creating safe and encouraging learning environment (NTS 3c, 3d, 3e and 3f).  LI 1.1 Give examples of how to create a warm, friendly and fair environment for teaching and learning (NTS 3c, 3d, 3e and 3f).  LI 1.2 Give examples of how to create conducive physical learning environment (NTS 3c, 3d, 3e and 3f).</p> <p>LO 2: Demonstrate knowledge, understanding and skills of planning and delivering varied and challenging lessons showing a grasp of the intended outcomes of teaching (NTS 3e, 3f, 3g and 3j).  LI 2.1 Prepare a scheme of learning for the semester bearing in mind GESI (NTS 2b, 2e and 3a).  LI 2.2 Prepare a lesson plan showing cross-cutting issues and GESI (NTS 2d, 2f and 3a).  LI 2.3 Model the delivery of a planned lesson (NTS 3e, 3g, 3k and 3p). (Extension Activity)</p>	30 mins

	<p>LO 3: Demonstrate knowledge, understanding and skills of carrying out action research to improve practices in the learning environment (NTS 3b).  LI 3.1 List learners' learning needs identified in the classroom (NTS 3a, 3b and 3m).  LI 3.2 Design an instrument for data collection (NTS 3n).  LI 3.3 List interventions to solve a problem identified in class (NTS 3a).  LI 3.4 Analyse and interpret data collected on teaching and learners learning needs (NTS 3n).</p> <p>LO 4: Demonstrate knowledge understanding and skills of managing behaviours with small and large class sizes (NTS 3c).  LI 4.1 Give examples of how to overcome challenges of teaching large class sizes (NTS 3d).  LI 4.2 Give examples of how to manage behaviour in large classes (NTS 3d).</p>	
<p><b>Give regard for SEL &amp; GESI, ICT, 21<sup>st</sup> century skills, etc</b></p>	<p>1.4 Discuss acceptable social behaviour that promotes teaching and learning and share with the larger class (NTS 1c, 1d, 1g and 1p).  <i>E.g.</i>  <i>Obedience, etc..</i></p> <p>1.5 In small groups, discuss how to create a warm and friendly environment for effective teaching and learning and share your findings with the larger group (NTS 3c, 3d and 3h).  <i>E.g.</i>  <i>Teacher being friendly to the learners, etc.</i></p> <p>1.6 In subject groups, discuss your prepared scheme of learning for the semester/term to find out if GESI, ICT and 21st century skills have been embedded (NTS 1d, 1f and 3g). (Extension Activity)  <i>E.g. (Science)</i>  <i>In a Science practical lesson, both boys and girls should be encouraged to do dissection of rodents, etc..</i></p>	<p>15 mins</p>

	<p>1.7 Using think-pair-share strategy, come out with various strategies that will be used to manage unacceptable behaviours in large classes (NTS 3d, 3g and 3m).</p> <p><i>E.g.</i>  <i>Disruption avoidance Strategies</i>  a) <i>Organising classroom environment to suit the learning context, (e.g. rearranging desks for groupwork), etc.</i></p> <p><i>Anticipation Strategies</i>  a) <i>Assigning roles to learners who have tendency of disturbing during teaching and learning, etc.</i></p> <p><i>Response Strategies</i>  <i>Use of rewards such as gifts, awarding of extra marks to well behaved students or groups, etc.</i></p>	
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the secondary school curriculum</b></p>	<p>2.1 List examples of learners' learning needs you can identify in your subject area (NTS 1e, 2c).  <i>E.g. (Science)</i>  <i>Learners' inability to plot graph with coordinates obtained from pendulum experiment, etc.</i></p> <p>2.2 Using think-pair-share, identify instruments that can be designed to collect data to justify or otherwise, an intervention for the problem you have identified in the classroom during teaching and learning sessions (NTS 3b, 3n).  <i>E.g.</i>  <i>Interview guide, etc.</i></p> <p>2.3 List the appropriate interventions to solve the problem you have identified (NTS 3e).  <i>E.g. (Science)</i>  . <i>Problem: Learners' inability to plot graph with coordinates obtained from pendulum experiment</i>  <i>Intervention: Remediation classes, etc.</i></p> <p>2.4 Prepare a lesson plan for an intervention. This should be based on the 2010 Senior High School Syllabus (NTS 3a, 3j and 3l). (Extension Activity)  <i>An example of an outline of a lesson plan for an intervention based on the 2010 SHS Integrated Science Syllabus*</i></p>	<p>15 mins</p>

	<p><b>Learning need:</b> learners' inability to differentiate between plant cell and animal cell correctly.</p> <p><b>Intervention:</b> Re-teaching content</p> <p><b>a) Topic:</b> Cells</p> <p><b>b) Sub-topic:</b> Differences between Plant Cell and Animal Cell</p> <p><b>c) Objectives</b>  By the end of the lesson, the student will be able to:</p> <ol style="list-style-type: none"> <li>i. Describe the structure of the plant cell.</li> <li>ii. Describe the structure of the animal cell.</li> <li>iii. Differentiate between the plant cell and the animal cell.</li> </ol> <p><b>d) Relevant Previous Knowledge:</b>  learners can explain what a cell is.</p> <p><b>e) Introduction:</b>  Elicit from the learners the meaning of cells using brainstorming.  Prepare the learners' mind to watch a documentary on plant cell and animal cell.</p> <p><b>f) Tasks/activities:</b></p> <ol style="list-style-type: none"> <li>i. Let learners watch a documentary on plant cell and note salient points on the structure of the plant cell for discussion.</li> <li>ii. Show them a chart of a well labelled diagram of the structure of a plant cell for a discussion.</li> <li>iii. Let learners watch a documentary on animal cell and note salient points on the structure of the animal cell for a discussion.</li> <li>iv. Show them a chart of a well labelled diagram of the structure of Animal cell for a discussion.</li> <li>v. Using small group discussion, let the learners discuss and write the differences they have discovered between plant cell and animal cell. Remind the learners to appoint group leaders and secretaries and let the leaders share the group's work with the larger class.</li> </ol> <p><b>g) Closure:</b>  Close the lesson by asking learners to reflect on the following questions:</p> <ol style="list-style-type: none"> <li>a. What new things have you learnt from today's lesson?</li> <li>b. How will today's lesson help you in your daily life activities?</li> </ol>	
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	<p><b>h) Evaluation</b></p> <ul style="list-style-type: none"> <li><i>i. Draw a plant cell and animal cell and label them.</i></li> <li><i>ii. State 4 differences between plant cell and animal cell.</i></li> </ul> <p><b>i) Content:</b></p> <p><i>Cells are the basic units of life or the building blocks of life. Examples are plant cell and animal cell.</i></p> <p><i>The differences between plant cell and animal cell include the following:</i></p> <ul style="list-style-type: none"> <li><i>i. Plant cell is surrounded by a rigid cell wall but animal cell does not have a cell wall.</i></li> <li><i>ii. Plant cell is larger in size but animal cell is smaller in size.</i></li> <li><i>iii. While plant cell has a large vacuole animal cell has small vacuole.</i></li> <li><i>iv. Plant cell has plastids but animal cell does not have plastids.</i></li> <li><i>v. Plant cell does not have cilia however, animal cell has cilia.</i></li> <li><i>vi. Lysosomes are very rare in plant cell but abundant in animal cell.</i></li> <li><i>vii. Plant cell does not have centrosome but animal cell has centrosome.</i></li> </ul> <p><b>j) Core competencies</b></p> <ul style="list-style-type: none"> <li><i>i. Leadership</i></li> <li><i>ii. Communication</i></li> <li><i>iii. Collaboration</i></li> <li><i>iv. Critical thinking</i></li> <li><i>v. Creativity and innovation</i></li> </ul> <p>2.5. In groups, do a presentation on the prepared lesson plan for feedback from your colleagues (NTS 3a). <b>(Extension Activity)</b></p> <p><i>*Teachers will be guided to tease out the learning outcomes and the learning indicators from the sample lesson plan.</i></p>	
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<p><b>3. Teaching, learning and assessment.</b></p>	<p>3.1 Tease out the learning outcomes and the learning indicators from the sample lesson plan. <i>E.g.</i> <i>LO: Demonstrate sound knowledge and understanding of plant cell and animal cell.</i> <i>LI 1.1 Describe the structure of the plant cell, etc.</i></p> <p>3.2 Discuss how you will collect post intervention data and share with the larger group data (NTS 1e, 3n). <i>E.g.</i> <i>Using marked test scores, etc.</i></p> <p>3.3 Describe how you will analyze the post intervention data and interpret it (NTS 3b). <i>E.g.</i> <i>Comparing post and the pre-intervention test scores to identify areas for development, etc.</i></p> <p>3.4 In groups, identify and discuss ways of overcoming challenges in teaching large class size and share with the larger group for further discussion (NTS 3d). <i>E.g.</i> <i>Use of group and pair work in large classrooms</i></p> <p>3.5 Present your work for feedback from the larger group</p>	<p>20 mins</p>
<p><b>4. Evaluation and review of session:</b></p>	<p>4.1 Reflect and write what you have learnt in the session (NTS 1a, 3l and 3n).</p> <p>4.2 Share what you have written with the larger group.</p> <p>4.3 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 9 and provide feedback at the next PLC Session.</p> <p>4.4 Remember to read Session 10 from the PLC Handbook in preparation for the next session.</p>	<p>10 mins</p>

<b>PLC Session 10: Teaching and Learning</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session</i>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>managing the learning environment</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session <i>managing the learning environment</i>, supported learning.</p> <p>1.3 Ask a teacher to read standard 3e, 3f, 3g, 3h, 3i, 3j, 3k and 3l under <i>Professional Practice</i> of the NTS and the learning outcomes (LOs) and learning indicators (LIs) of the session to set the stage for the session.</p> <p>LO 1: Develop a variety of instructional strategies that encourage learners’ participation and critical thinking (NTS 3e).  LI 1.1 Mention at least three teaching strategies that encourage learners’ participation in class.  LI 1.2 Mention at least three teaching strategies that encourage learners’ critical thinking.</p> <p>LO 2: Employ Gender Equality and Social Inclusive (GESI) responsive activities during teaching and learning (NTS</p>	30 mins

	<p>3f).</p> <p>LI 2.1 State at least four measures a teacher can adopt to be GESI responsive.</p> <p>LI 2.2 Identify and mention at least three categories of learners that require GESI responsive support approaches in teaching and learning the most.</p> <p>LO 3: Employ teaching strategies appropriate for mixed ability, multilingual, and multi-age classes of learners (NTS 3g).</p> <p>LI 3.1 State at least three teaching strategies that support the teaching of learners from diverse backgrounds.</p> <p>LI 3.2 Identify at least four teaching and learning resources that can be used in teaching learners from different ability groups.</p> <p>LO 4: Discuss meaningful tasks that encourage learner collaboration and lead to purposeful learning (NTS 3h).</p> <p>LI 4.1 List at least four classroom activities that will encourage learners to collaborate during teaching and learning.</p> <p>LI 4.2 List at least three classroom activities that will lead to purposeful learning.</p> <p>LO 5: Explain concepts clearly using examples familiar to learners.</p> <p>LI 5.1 Mention at least three strategies teachers can adopt to explain key concepts in the lessons (NTS 3i).</p> <p>LI 5.2 Discuss at least two strategies teachers can adopt to explain key concepts in their lessons.</p> <p>LO 6: Discuss the production and uses of a variety of teaching and learning resources that enhance learning, including Information and Communications Technology (ICT) tools (NTS 3j).</p> <p>LI 6.1 List and discuss at least three ways in which teaching and learning resources can be produced using local resources.</p> <p>LI 6.2 State at least three ways in which teaching and learning resources can be produced using ICT.</p> <p>1.4 Share with the group, various teaching strategies you have been using to deliver your lessons (NTS 3e).  <i>E.g.</i>  <i>Role-play, etc.</i></p>	
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	<p>1.5. Discuss at least four teaching strategies that encourage learners' critical thinking and participation (NTS 3e, 3g).  <i>E.g.</i>  <i>Whole-class dialogue, etc.</i></p> <p>1.6. State at least four measures that you can adopt to be GESI responsive (NTS 3f).  <i>E.g.</i>  <i>Classroom arrangement, etc.</i></p> <p>1.7 Identify and mention at least three categories of learners that require GESI responsive support approaches in teaching and learning the most (NTS 3g).  <i>E.g.</i>  <i>a) Hearing impaired</i>  <i>b) Visually impaired, etc.</i>  <i>c)</i></p> <p>1.8 State at least four strategies that support the teaching of learners from diverse backgrounds (NTS 3e, 3g).  <i>E.g.</i>  <i>Seating arrangement that allows for independent work, etc.</i></p> <p>1.9 Identify at least four teaching and learning resources that can be used in teaching learners from different ability groups (NTS 3i).  <i>E.g.</i>  <i>Audio-visual material, etc.</i></p> <p>1.10 List at least four classroom activities that will encourage learners to collaborate during teaching and learning (NTS 3h).  <i>E.g.</i>  <i>Peer learning/ teaching, etc.</i></p> <p>1.11 Mention at least three strategies you can adopt or adapt to explain key concepts in your lessons (NTS 3i).  <i>E.g.</i>  <i>a) Imaginative use of drawings, diagrams, charts, etc.</i>  <i>b) Demonstrations, etc.</i></p> <p>1.12 Discuss at least two key strategies you can use to explain key concepts in your lessons (NTS 3i).  <i>E.g.</i>  <i>Using diagrams, etc.</i></p>	
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	<p>1.13 List and discuss at least three ways in which teaching and learning resources can be produced using local resources (NTS 3j).</p> <p><i>E.g.</i> <i>Draw on cardboards, etc.</i></p>	
<p><b>Give regard for possible misconceptions and stereotypes and 21<sup>st</sup> century skills.</b></p>	<p>1.14 Identify possible misconceptions and stereotypes in teaching and learning.</p> <p><i>E.g.</i> <i>Female teachers can teach lower-level classes better than male teachers, etc.</i></p> <p>1.15 Discuss possible ways to mitigate these misconceptions in teaching and learning in your various subjects.</p> <p><i>E.g.</i> <i>Teaching is a profession which requires training irrespective of gender, etc.</i></p> <p>1.16 Discuss possible activities you would adopt to develop the following 21<sup>st</sup> century skills in your learners.</p> <p><i>E.g.</i> <i>Communication skills, collaboration, observation and enquiry skills, digital literacy, creativity, personal development skills, etc., can be developed in learners using the following activities;</i></p> <ul style="list-style-type: none"> <li><i>a) group discussion</i></li> <li><i>b) project/research</i></li> <li><i>c) role-play</i></li> <li><i>d) hands-on activities, etc.</i></li> </ul>	10 mins

<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the secondary school curriculum</b></p>	<p>2.1 Discuss samples of your lesson plans in your various subject areas and link them to the NTS, particularly to teaching and learning (NTS 3e, 3f, 3g, 3h, 3i, 3j, 3k and 3l).</p> <p><i>An example of an outline of a Lesson Plan based on the 2010 Senior High School Syllabus in Geography*</i></p> <p>a) <b>Topic:</b> Rocks</p> <p>b) <b>Sub-topic:</b> Types of rocks</p> <p>c) <b>Objectives:</b> By the end of the lesson, learners will be able to:</p> <ol style="list-style-type: none"> <li>i. Explain the term rock</li> <li>ii. State the types of rocks</li> <li>iii. Give at least two examples each of the types of rocks</li> </ol> <p>d) <b>RPK:</b> learners have seen rocks, stones and sand in their environment</p> <p>e) <b>Introduction:</b> Introduce the lesson by giving samples of rocks, stones and sand for learners to observe and come out with their differences and similarities.</p> <p>f) <b>Task/Activities:</b></p> <ol style="list-style-type: none"> <li>i. With the aid of pictures, drawings of rocks on cardboard, etc., guide learners to brainstorm the meaning of rock</li> <li>ii. Using samples of the sand, stones, and rocks, guide learners to identify their differences and similarities and come out with the types of rocks</li> <li>iii. Guide learners group the rocks according to their types i.e. igneous rocks (basalt, granite, gabbro), sedimentary rocks (chalk, shale, sandstone) and metamorphic rocks (slate, marble, gneiss)</li> </ol> <p>g) <b>Core Points:</b></p> <p>Meaning of rock: Rocks are aggregates of a solid mineral matter that constitute a significant part of the earth crust or a mass of a stone projecting out of the ground</p> <p>Types of rocks and their examples:</p> <ol style="list-style-type: none"> <li>i. Igneous rocks e.g. basalt, granite, gabbro,</li> <li>ii. Sedimentary rocks e.g. chalk, shale, sandstone</li> <li>iii. Metamorphic rocks e.g. slate, marble, gneiss</li> </ol> <p><b>h) Core Competencies:</b> identification skills, imagination skills, observation skills, collaboration skills,</p>	<p>20 mins</p>
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	<p><i>communication skills</i></p> <p><b>i) Closure:</b>  <i>Review the lesson with learners and allow them to ask for clarification if any</i></p> <p><b>j) Evaluation:</b></p> <ul style="list-style-type: none"> <li><i>i. Describe what rocks are.</i></li> <li><i>ii. Mention at least two types of rocks.</i></li> <li><i>iii. State at least two examples each of the various types of rocks.</i></li> </ul> <p><b>k) Remarks:</b>  <i>*Teachers would be guided to tease out the learning outcomes and learning</i></p>	
<p><b>3. Teaching, learning and assessment</b></p> <p>► <b>Noting opportunities for integrating: GESI &amp; SEL responsiveness and ICT and 21<sup>st</sup> C skills on</b></p>	<p><i>indicators from the lesson.</i></p> <p>3.1 Ask teachers to tease out the learning outcomes and learning indicators from the sample lesson plan and compare their work.</p> <p><i>E.g.</i>  <i>LO: Demonstrate knowledge and understanding of the various types of rocks</i></p> <p><i>LI 1.1 Explain the term ‘rock’, etc.</i></p> <p>3.2 Ask teachers to suggest alternative ways of delivering the sample lesson.</p> <p><i>E.g.</i>  <i>Small group work, etc.</i></p> <p>3.3 Review the sample lesson plan and suggest activities that can promote GESI and SEL responsiveness.</p> <p><i>E.g.</i>  <i>Plan for differences in learner needs, etc.</i></p> <p>3.4 In groups suggest other assessment methods that</p>	

	<p>could be used in the sample lesson.</p> <p><i>E.g.</i></p> <p>a) <i>Self-assessment</i></p> <p>b) <i>Peer-assessment</i></p> <p>c) <i>Test</i></p> <p>d) <i>Project work, etc.</i></p> <p>3.5 Model a teaching activity in the sample lesson plan <b>(Extension Activity)</b></p>	20 mins
<p><b>4. Evaluation and review of session:</b></p> <p>► <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></p>	<p>4.1 Reflect and write what you have learnt in the session (NTS 3e, 3f, 3g, 3h, 3i, 3g and 3k).</p> <p>4.2 Share what you have written with the larger group.</p> <p>4.3 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 10 and provide feedback at the next PLC session.</p> <p>4.4 Remember to read Session 11 from the PLC Handbook in preparation for the next session.</p>	10 mins

<b>PLC Session 11: Assessment</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i></b>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>teaching and learning</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session <i>managing the learning environment</i>, supported learning.</p> <p>1.2 Read NTS 3k, 3l, 3m, 3n, 3o and 3p the under <i>Professional Practice</i> of the NTS and the learning outcomes (LOs) and learning indicators (LIs) of the session to set the stage for the session.</p> <p>LO 1: Show an understanding of assessment and how teachers can assess learners inside and outside the classroom (NTS 3k).</p> <p>LI.1.1 Discuss the meaning of assessment.</p> <p>LI 1.2 State at least three characteristics of continuous assessment.</p> <p>LO 2: Demonstrate understanding of the purposes of assessment (<i>assessment for</i>, <i>assessment as</i> and <i>assessment of learning</i>) (NTS 3k, 3l, 3m, 3n, 3o and 3p).</p> <p>LI 2.1 State how assessment modes are incorporated in teaching and learning.</p> <p>LI 2.2 Describe how the assessment of learners' academic attainment relates to the NTS (NTS 3k, 3l, 3m, 3n, 3o and 3p).</p> <p>LI 2.3 Discuss ways in which continuous assessment can be improved.</p>	30 mins

	<p>1.3 Discuss the meaning of assessment.  <i>E.g.</i>  <i>Assessment is a variety of procedures used to obtain information about learner performance. It involves the measurement and evaluation of learners/learners 'traits', potential and actual performance. (Linn &amp; Miller, 2005)</i>  <i>From the meaning, assessment measures learners' present performance, etc.</i></p> <p>1.4 State and explain the characteristics of continuous assessment (CA) (NTS 3k).  <i>E.g.</i>  <i>CA is diagnostic because it can be used to identify the gaps in learning etc.</i></p> <p>1.5 Discuss in groups how assessment are incorporated in teaching and learning (NTS 3k).  <i>E.g.</i>  <i>Assessment "for" learning seeking and interpreting evidence by learners and teachers to decide where the learners are in their learning (Deluca et al., 2019), etc.</i></p> <p>1.6 Reflect and write how you have used <i>assessment for</i>, <i>assessment as</i> and <i>assessment of</i> in your classroom.  <i>E.g.</i>  <i>Class exercise to check understanding (for), etc.</i></p>	
<p><b>Give regard for possible misconceptions related to GESI, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.7 State the misconceptions surrounding the different types of classroom assessments (NTS 3m).  <i>E.g.</i>  <i>Boys perform better than girls in classroom assessment because they like competition, etc.</i></p> <p>1.8 Discuss possible ways to mitigate these misconceptions and stereotypes in assessment (NTS 3m).  <i>E.g.</i>  <i>Organise orientation to sensitise teachers on the various assessment purposes, etc.</i></p> <p>1.9 Discuss what to do to ensure equal participation of male and female learners in classroom assessment (NTS 3e).  <i>E.g.</i>  <i>a) Provide opportunities for self-assessment, etc.</i></p>	<p>10 mins</p>

<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making Links to the secondary school curriculum</b></p>	<p>2.1 Discuss samples of lesson plans in your subject and link them to the NTS (NTS 3a, 3e, 3g and 3j).</p> <p><i>An example of an outline for teaching simultaneous linear equations from the SHS 2010 Mathematics Syllabus*</i></p> <p>a) <b>Topic:</b> Simultaneous Linear Equations</p> <p>b) <b>Sub-topic:</b> Graphical Method for solving Linear Equations in two variables</p> <p>c) <b>Objectives:</b> Learners will be able to:</p> <ol style="list-style-type: none"> <li>i. Plot points for given linear equations</li> <li>ii. Draw graphs for given linear equation</li> <li>iii. Determine the point of intersection as the solution for two given linear equations.</li> </ol> <p>d) <b>Relevant previous knowledge:</b> Learners can plot points and draw straight lines on a graph.</p> <p>e) <b>Introduction:</b> Ask learners to come to the board to plot given points on a graph (Ensure males and females including SEN learners)</p> <p>f) <b>Tasks/activities:</b></p> <ol style="list-style-type: none"> <li>i. Guide learners to plot points for given linear equations.</li> <li>ii. In pairs, let learners draw graphs for given linear equations. Move round the tables to observe the learners' activities and provide support where necessary</li> <li>iii. Guide learners to determine the point of intersection as the solution set for the two given linear equations</li> <li>iv. Lead learners to brainstorm the application of the concept in everyday life.</li> </ol> <p>g) <b>Core Points:</b></p> <ol style="list-style-type: none"> <li>i. Two equations are said to be simultaneous equations in <math>x</math> and <math>y</math> if there exist a values for <math>x</math> and <math>y</math> which can satisfy the two equations at the same time</li> <li>ii. The point of intersection is where the two lines meet and that gives the solution set.</li> </ol> <p>h) <b>Core Competences:</b></p>	<p>20 mins</p>
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	<ul style="list-style-type: none"> <li>i. <i>Collaboration</i></li> <li>ii. <i>Observation and enquiry skills</i></li> <li>iii. <i>Critical Thinking and problem solving</i></li> <li>iv. <i>Personal development, etc.</i></li> </ul> <p>i) <b>Closure:</b> <i>Recap the lesson by asking the various groups to come out with what they have learned from the lesson.</i></p> <p>j) <b>Evaluation:</b> <i>Draw graphs for <math>3x+2y=8</math> and <math>4x-3y=5</math> and use the graph to find the solution set of the two equations.</i></p> <p>*Teachers would be guided to tease out the LOs and the LIs from the sample lesson.</p>	
<p><b>3. Teaching, learning and assessment</b></p>	<p>3.1 Identify gaps in your sample lesson plans and discuss possible ways of addressing them (NTS 1a, 3d, 3e, 3f, 3g and 3m).</p> <p><b>Possible gaps:</b></p> <ul style="list-style-type: none"> <li>a) <i>inadequate prescribed textbooks for mathematics</i></li> <li>b) <i>inadequate teaching learning resource</i></li> <li>c) <i>lack of GESI responsive assessment methods.</i></li> </ul> <p><b>Possible solutions:</b> <i>E.g. Use of:</i></p> <ul style="list-style-type: none"> <li>a) <i>a library</i></li> <li>b) <i>OERs and other Internet facilities</i></li> </ul>	<p>20 mins</p>

	<p>3.2 Tease out the learning outcomes and learning indicators from the sample lesson plan. <i>E.g.</i> <i>LO: Demonstrate understanding of Graphical Method for solving Linear Equations in two variables</i> <i>LI 1. Plot points for given linear equations., etc.</i></p> <p>3.3 Suggest alternative ways of delivering the sample lesson plan (NTS 2e). <i>E.g.</i> <i>Use of flipped classroom, i.e., form of blended learning requiring readings at home and work on live problem-solving during class time</i></p> <p>3.4 Review your sample lesson plans to identify activities that promote GESI responsiveness (NTS 2e). <i>E.g.</i> <i>Classroom arrangement that facilitates mixed-gender interaction as appropriate, etc.</i></p> <p>3.5 Discuss how the sample lesson can be linked to the use of assessment <i>for learning</i>, assessment <i>as learning</i> and assessment <i>of learning</i> (NTS 3k). <i>E.g.</i> <i>Question and answer method promotes assessment for learning, etc.</i></p> <p>3.6 a teaching activity in the sample lesson for feedback from the group, taking into consideration GESI, SEL ICT and 21<sup>st</sup> century skills (NTS 3f, 3p) <b>(EXTENSION ACTIVITY)</b></p>	
<p><b>4 Evaluation and review of session:</b></p> <p>► <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></p>	<p>4.1 Reflect and write what you have learnt in the session using the “Talk-to-the-hand” strategy (teacher place their palm on a sheet of paper and trace the fingers out, and in each finger, write the key thing they have learnt) (NTS 3e).</p> <p>4.2 Share your reflections with the larger group (NTS 1a).</p> <p>4.3 Identify a critical friend who observed you teach your lesson in relation to PLC Session 11 and provide feedback at the next PLC session (NTS 3l).</p> <p>4.4 Remember to read Session 12 from the PLC Handbook in preparation of the next session (NTS 3a).</p>	<p>10 mins</p>

<b>PLC Session 12: Training needs of teachers</b>		
	<b>Guidance Notes on Teacher Activity during the PLC Session.</b> <i>What teachers will do during each stage of the session.</i>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>teaching and learning</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>assessment</i>, supported learning.</p> <p>1.3 Read the learning outcomes (LOs) and learning indicators (LIs) below to set the stage for the session.</p> <p>LO 1: Demonstrate knowledge in Professional Portfolio (PP) development and action research in the classroom.</p> <p>LI 1.1 Identify items to be included in the PP. LI 1.2 Give examples of the issues in the classroom that need action research to address.</p> <p>LO 2: Demonstrate knowledge and understanding of the key GES policies.</p> <p>LI 5.1 State at least three policies of GES.</p> <p>LI 5.2 Analyse at the relevance of at least three key GES policies.</p> <p>LO 6: Demonstrate knowledge and understanding of leadership for learning.</p> <p>LI 6.1 State at least three qualities of a good leader.</p>	30 mins

	<p>LI 6.2 Analyse at least three leadership styles.</p> <p>1.4 In groups, discuss the various ranks in the GES listed in the NTS for general discussion. <i>E.g., Rank 1, Rank 2, Rank 3, Rank 4, Rank 5 and Rank 6.</i></p> <p>1.5 Identify at least 5 items in the teacher’s professional portfolio that can be used as evidence of working to the NTS (NTS 1b). <i>E.g. Assignments, etc.</i></p> <p>1.6 State the common competency requirements for all 6 ranks of the GES (NTS 1b). <i>E.g. Guide teachers under their supervision on ethical, legislative, administrative and organizational requirements as a teacher.</i></p> <p>1.7 Write some of the issues in the classroom that can trigger action research (NTS 3b, 3c). <i>E.g. Absenteeism, etc.</i></p>	
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	<p>1.8 Identify training activities for teachers at the various GES ranks, as indicated in the NTS, that can support teaching and learning in secondary schools <i>E.g.</i> <i>Rank 1 Portfolio writing/development</i></p> <p><i>Rank 2</i> <i>Mentoring and coaching skills</i></p> <p><i>Rank 3</i> <i>Examination item writing and management</i></p> <p><i>Rank 4</i> <i>Integrating ICT and other technologies in school administration and governance</i></p> <p><i>Rank 5</i> <i>a) Knowledge of procurement laws</i></p> <p><i>Rank 6</i> <i>Strategic planning and management in education</i></p> <p>1.9 Identify specific Standards of NTS that seek to address the training needs of teachers in various ranks of the GES. <b>Note:</b> <i>See the training needs listed in the appendix of the NTS and identify the Standards that can address them.</i></p> <p>1.10 Write at least four competences of a good leader that are capable of helping to address the training needs of teachers in the various ranks of the GES (NTS 1c, 1f and 1g). <i>E.g.</i> <i>Ranks 2 Leader- Ability to guide teachers under their supervision to demonstrate attitudes expected of teachers and model such exemplary attitude by themselves</i></p>	
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<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to secondary school curriculum</b></p>	<p>2.1 Discuss samples of your lesson plans in your respective subject areas and link them to the NTS (NTS 3a, 3b and 3e).</p> <p><b>Sample of lesson outline in Social Studies:</b>  <i>An example of an outline plan for teaching based on the 2010 SHS Social Studies Syllabus*.</i></p> <p>a) <b>Topic:</b> <i>The role of the individual in a community development</i></p> <p>b) <b>Sub-topic:</b> <i>Levels of community and community development</i></p> <p>c) <b>Objectives:</b> <i>By the end of the lesson, the learner will be able to;</i></p> <ul style="list-style-type: none"> <li>i. <i>identify the levels of community,</i></li> <li>ii. <i>explain at least four ways by which an individual can contribute to the development of their community.</i></li> </ul> <p>d) <b>RPK:</b> <i>Learners have been taking part in communal labour.</i></p> <p>e) <b>Introduction:</b> <i>Ask learners to mention things they have observed during communal labour.</i></p> <p>f) <b>Teacher and learner activities:</b></p> <ul style="list-style-type: none"> <li>i. <i>Students undertake a case study of the community development project and present their findings.</i></li> <li>ii. <i>Students brainstorm to come up with ways an individual can contribute to the development of their community.</i></li> </ul> <p>g) <b>Core points:</b></p> <ul style="list-style-type: none"> <li>i. <i>A community is a group of people living in a locality. The group has common values, interest, enduring ties, frequent interactions and a sense of closeness.</i></li> </ul>	<p>20mins</p>
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	<p>ii. <i>The levels of community include: neighbourhood, village, town, district/municipal/metropolitan, regional and national.</i></p> <p>iii. <i>How to contribute to community development</i></p> <ol style="list-style-type: none"> <li>1. <i>Attending community meetings</i></li> <li>2. <i>Volunteer to help at a local event hosted by the community</i></li> <li>3. <i>Volunteer time for a committee that helps with community development, etc.</i></li> </ol> <p>h) <b>Core competencies:</b></p> <ol style="list-style-type: none"> <li>i. <i>Personal development and leadership</i></li> <li>ii. <i>Communication and collaboration</i></li> <li>iii. <i>Critical thinking and problem solving</i></li> </ol> <p>i) <b>Conclusion:</b> <i>Elicit responses from learners about what they have learnt from lesson through questioning and answering technique.</i></p> <p>j) <b>Evaluation:</b></p> <ol style="list-style-type: none"> <li>iii. <i>What is community?</i> <i>State 3 ways an individual can contribute to the development of his/ her community.</i></li> </ol>	
	<p>*Teachers would be guided to tease out the learning outcomes and learning indicators from the lesson.</p>	

<p><b>3. Teaching, learning and assessment</b></p> <p>► <b>Reading and discussion of the teaching and learning activities</b></p>	<p>3.1 Identify gaps in your sample lesson plans and discuss possible ways of addressing same (NTS 3a).  <i>E.g.</i>  <b>Possible gaps:</b> <i>Inadequate teaching and learning resources.</i>  <b>Possible Solution:</b>  <i>Online search for resources</i></p> <p>3.2 Tease out the learning outcomes and the learning indicators from the sample lesson plan and compare these with the objectives (NTS 3h).  <i>E.g.</i>  <i>LO: Demonstrate knowledge and understanding in the levels of community and community development.</i>  <i>LI 1.1 Identify the levels of community, etc.</i></p> <p>3.3 Identify and discuss ways the lessons could be taught using creative approaches and making the lesson ICT mediated and GESI responsive.  <i>E.g.</i>  <i>Teach using PowerPoint</i></p> <p>3.4 Write how the NTS will help to promote the delivery of lessons in the secondary school curriculum (NTS 2b, 2d).  <i>E.g.</i>  <i>By highlighting the way in which lessons are to be delivered effectively</i></p>	<p>30 mins</p>
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	<p>3.5 State alternative ways of delivering the sample lessons plan (NTS 3a, 3e and 3g). <i>E.g.</i> <i>Use of flipped classroom.</i></p> <p>3.6 Discuss how the session is linked to the use of formative assessment tools and practices (NTS 3k, 3l). <i>E.g.</i> <i>Assessment for learning and assessment as learning should be encouraged, etc.</i></p> <p>3.7 Brainstorm the sources of support and resources teachers need to enable them to improve their teaching. <i>E.g.</i> <i>Professional Learning Community sessions, etc.</i></p> <p>3.8 Model a teaching activity in the sample lesson plan (NTS 1a, 3a). <b>(EXTENSION ACTIVITY)</b></p>	
<p><b>4. Evaluation and review of session:</b> ► <b>Teachers need to identify critical friends to observe lessons and report at next session</b></p>	<p>4.1 Reflect and write what you have learned in the session.</p> <p>4.2 Share what you have learned in the session with the larger group.</p> <p>4.3 Reflect and write what you have learned from PLC Session 1 to Session 11</p> <p>4.4 Remember to identify a critical friend to observe you in teaching your lessons in relation to PLC Session 12 and provide feedback to you.</p>	15 mins

## TVET PLC Session 5: Professional Development

### TVET DOMAINS

1. Agricultural Science
2. Home Economics
3. Technical Skills
4. Visual Art

	<b>Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i></b>	<b>Time in session</b>
<b>1. Review of previous session and introduction of new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>the National Teachers' Standards</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>gender equality and social inclusion</i>, supported learning.</p> <p>1.3 Ice breaker activity: <i>Either use:</i></p> <p><b><i>The Allegory of the Tailless Monkey</i></b> There lived a happy community of monkeys in the <i>Nunya</i> forest. One day a middle-aged sanguine monkey called <i>Blekpo</i> ventured out of the forest into a large farm. To his joyful surprise, he saw many new things he had never seen before. The air was fresh and the land was flat with very few trees. There was a lot of space to run and jump as much as he could. He sighed with excitement, 'what a freedom! 'At last I am free. I can do whatever I like without the disruption from those old clumpy folks who think they have seen it all. When I get back and tell my experience, the old fools will keep quiet because they will know that they do not have monopoly over experience'. Soon he was all over the place, jumping and climbing the yam poles</p>	30 mins

	<p>from one yam mound to another. Unfortunately, he got his head trapped in the farmer's trap. Seeing that he was going to die, he managed to exchange his tail with his head, Having lost his tail in the process, he sneaked back into the forest shamefully. He began to feel odd and lonely because he was the only one without a tail. Cunningly, he decided to trick other monkeys also to cut off their tails so they can become equal. As a good orator his ideas began to gain grounds and many young monkeys were willing to cut off their tails as he suggested.</p> <p><i>Abrewaa</i> the oldest female monkey in the Nunya forest who herself had survived many disasters saw everything that happened to troublesome monkey, <i>Blekpo</i>, that faithful day. She was on her own lookout for her naughty grandson who also went on adventure in the forest that day. She called a meeting of all the monkeys and narrated all that had happened to the tailless monkey. He explained that, every monkey's agility to climb is in its tail, hence the tail cannot be a nuisance as <i>Blekpo</i> was making it look like. She warned that monkeys will be unable to escape as fast as they need should they chop off their tails. Having shared many experiences, <i>Abrewaa</i> succeeded in persuading the younger monkeys from cutting off their tails.</p> <p>a) What lesson have you learnt from this story?  b) What saved the other monkeys that were going to chop off their tails as a result of the deception?  c) How can you relate this story to the PLC sessions?  Or  Begin the session by asking teachers to mention what they know about the National Teachers' Standards (NTS)</p>	
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	<p>1.4 Share your findings of the lesson you observed your critical friend teach after the last PLC session (NTS 1a, 1e).</p> <p>1.5 Read NTS 1a, 1b, and 1c and tease out the learning outcomes (LOs) and learning indicators (LIs) of the session. and compare with the LOs and LIs listed below.</p> <p>LO 1: Demonstrate ability to critically and collectively improve teaching and learning.</p> <p>LI 1.1 Reflect on one’s own practice.</p> <p>LI 1.2 Reflect and critique one’s own and peers’ practice using lesson notes, reflective log, reflective journals, portfolios, etc.</p> <p>LO 2: Demonstrate knowledge skill and willingness to improve personal and professional development through lifelong learning and continuous professional development.</p> <p>LI 2.1 Identify gaps in knowledge that can impede personal development.</p> <p>LI 2.2 Identify gaps in knowledge that can impede professional development.</p> <p>LO 3: Demonstrate skill in effective leadership both in the classroom and wider school community.</p> <p>LI 3.1 Model GESI compliant qualities in the classroom and beyond.</p> <p>LI 3.2 Show high quality of attendance and punctuality to class and meetings.</p> <p>LI 3.3 Delegate roles to all learners equally irrespective of gender or ability.</p> <p>LI3.4 Attend and contribute meaningfully to school, Parent-Teacher Association/Parent Association and other relevant community meetings.</p>	
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	<p>LI 3.5 Avoid exploiting the vulnerability of both male and female learners including SEN.</p> <p>LI 3.6 Comply with Ministry of Education (MoE) and Ghana Education Service (GES) Ethical Codes.</p> <p>LI 3.7 Volunteer to perform roles that will lead to the growth and development of learners, the school and the wider community.</p> <p>1.6 Discuss the relationship between the LOs and the LIs.</p> <p><b>Note:</b>  LO is <i>the expected knowledge, understanding, skills, etc. to be acquired at the end of a lesson,</i>  LI is <i>the practical evidence that learning has taken place. It may include verbal responses, practical activity or products.</i></p> <p>1.7 Discuss and relate the concept of Professional Development to their various TVET domains.  <i>E.g.</i>  <i>Professional development refers to continuing education and career training after a person has entered the workforce in order to help them develop new skills, stay up-to-date on current trends and advance their career (NTS 2c, 3j).</i></p> <p>Ref. <a href="https://www.webce.com">https://www.webce.com</a> (retrieved 24/03/2022)</p> <p>1.8 Identify further areas of professional development that will enhance your teaching.  <i>E.g.</i>  <i>Short courses such as cake making, exterior and interior decoration, exhibitions, fish farming, art association meetings, courses in ICT, etc., (NTS 1b, 3m).</i></p>	
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<p><b>Give regard for misconceptions and stereotypes, GESI, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.9 Identify possible misconceptions and stereotypes in TVET. <i>E.g.</i> <i>TVET is for learners with low IQ.</i></p> <p>1.10 Discuss possible ways of mitigating these misconceptions and stereotypes in TVET in the classroom and elsewhere. <i>E.g.</i> <i>Invite role models/resource persons that have overcome these stereotypes and have achieve successes in the TVET domains in the society to interact with learners</i></p> <p>1.11 In mixed gender groupings (where possible) list some 21<sup>st</sup> century skills. <i>E.g. Communication skills, collaboration, observation and enquiry skills, digital literacy, creativity, etc.,</i></p> <p>1.12 Identify ways of incorporating ICT in your lesson. (NTS 1a, 3j). <i>E.g.</i> <i>Surfing Open Educational Resources (OERs) and other internet sources for information</i></p> <p>1.13 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills such communication skills, collaboration, observation and enquiry skills, digital literacy, creativity, personal development in your learners. (NTS 3e, 3h and 3j). <i>E.g.</i> <i>Group discussion</i></p>	<p>10 mins</p>
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<p><b>2 Planning for teaching, learning and assessment activities for the lesson/s making links to the TVET curriculum</b></p>	<p>2.1 Discuss samples of their lesson plans in their various TVET domains based on the 2010 SHS Syllabus and link them to the concepts of LOs and LIs*</p> <p><i>Sample Lesson Topic in the TVET: Introduction to Agriculture, Home Economics, Technical Skills, Visual Art.</i></p> <p><b>Agricultural Science</b> Topic: Introduction to Agriculture Sub-topic: Importance of Agriculture (to the national economy).</p> <p><b>Home Economics</b> Topic: Introduction to Nutrition Sub-topic: Importance of Nutrition.</p> <p><b>Technical Skills</b> Topic: Introduction to Technical Drawing. Sub-topic: Importance of Technical Drawing.</p>	<p>20 mins</p>
	<p><b>Visual Art</b> Topic: Introduction to Picture Making Sub-topic: Importance of Picture Making.</p> <p><b>a) Objectives</b> By the end of the lesson, learners will be able to:</p> <ol style="list-style-type: none"> <li>i. List the components of Agriculture, Nutrition, Technical Drawing and Picture making.</li> <li>ii. Discuss the components of Agriculture, Nutrition, Technical Drawing and Picture making.</li> <li>iii. List and discuss products of Agriculture, Nutrition, Technical Drawing and Picture making.</li> <li>iv. Discuss the importance of Agriculture, Nutrition, Technical Drawing and Picture making to the economy of Ghana.</li> </ol> <p><b>b) Core activities</b></p> <ol style="list-style-type: none"> <li>i. Guide learners in groups to list the components of Agriculture, Nutrition, Technical Drawing and Picture making</li> </ol>	

	<p>ii. <i>Guide learners to surf OERs and other sources on the Internet to find more information to discuss the components of Agriculture, Nutrition, Technical Drawing and Picture making.</i></p> <p>iii. <i>Guide learners to list and discuss five products of Agriculture, Nutrition, Technical Drawing and Picture making.</i></p> <p>vi. <i>Put learners in mixed ability/gender groups (where possible) discuss the importance of Agriculture, Nutrition, Technical Drawing and Picture making to the economy of Ghana.</i></p> <p><b>c) Evaluation</b>  <i>Evaluate the lesson by using question and answer method.</i>  <i>*Tease out the learning outcomes and the learning indicators from the sample lesson plans outline.</i>  2.1 <i>Tease out LOs and LIs from the sample lesson.</i>  <i>LO: Demonstrate understanding of the importance of agriculture, nutrition, technical drawing and picture making (to the national economy).</i></p> <p><i>LI.1 List the components of Agriculture, Nutrition, Technical Drawing and Picture making.</i>  <i>LI.2 State the importance of Agriculture, Nutrition, Technical Drawing and Picture making.</i>  <i>LI.3 Identify some products of Agriculture, Nutrition, Technical Drawing and Picture making (NTS 3a).</i></p>	
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<p><b>3 Teaching, learning and assessment</b></p> <ul style="list-style-type: none"> <li><b>Reading and discussion of the teaching and learning activities.</b></li> </ul>	<p>3.1 Identify gaps in your sample lesson plans and discuss possible ways of addressing same (NTS 1a, 1e and 2c).  <i>E.g.</i>  <b>Possible gap:</b> <i>Inadequate prescribed textbooks, etc.</i>  <b>Possible Solution:</b>  <i>Use of a library (e-library and physical), Open Educational Resources (OERs) and other Internet facilities</i></p> <p>3.2 Suggest alternative ways of delivering the sample lessons (NTS 3f, 3j).  <i>E.g. use of: Flipped classroom,</i></p> <p>3.3 Review their sample lesson plans to identify activities that promote GESI responsiveness (NTS 3f, 3l and 3m).  <i>E.g.</i>  <i>Classroom arrangement that facilitates interaction</i></p> <p>3.4 Discuss how the unit is linked to the use of formative assessment tools and practices (NTS 3k, 3l, 3m and 3n).  <i>E.g.</i>  <i>Assessment for learning</i></p> <p>3.5 In your domain groups brain-write other possible authentic assessment methods that could be used in the sample lesson and share same with the whole group (NTS 2e, 3k, 3l and 3o).  <i>E.g.</i>  <i>Self-assessment</i></p> <p>3.6 List and discuss how the session makes use of ICT resources to support relevant activities in the NTS (NTS 3j).  <i>E.g.</i>  <i>Pre-recorded video</i></p>	<p>20 mins</p>
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	<p>3.7 Ask one teacher to model the sample lesson. (NTS 1f, 1c and 3a).</p> <p><b>(EXTENSION ACTIVITY)</b></p>	
<p><b>4. Evaluation and review of session:</b></p> <ul style="list-style-type: none"> <li>• <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></li> </ul>	<p>4.1 Reflect and brain-write what you have learnt in the session (NTS 1a, 1b and 1f).</p> <p>4.2 Share with the larger group (NTS 1e).</p> <p>4.3 Identify a critical friend to observe you in teaching your lessons in relation to PLC session 5 and provide feedback at the next PLC session (NTS 1a,1e and 3l)</p> <p>4.4 Read Session 6 from the PLC Handbook in preparation for the next session (NTS 3b).</p>	10 mins

## TVET PLC Session 6: Community of Practice

TVET Domains:

1. Agriculture
2. Home Economics
3. Technical Skills
4. Visual Art

	Guidance Notes on Teacher Activity during the PLC Session. What teachers will do during each stage of the session.	Time in session
<p><b>1. Review of previous session and introduction of new session</b></p>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>the National Teachers' Standards</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>professional development</i>, supported learning.</p> <p>1.3 Read NTS 1d, 1e, 1f and 1g on the Community of Practice and tease out the learning outcomes (LOs) and learning indicators (LIs) of the session for a discussion with colleagues (NTS 1 d, 1e, 1f and 1g) and compare these with the LOs and LIs listed below.</p> <p>LO 1: Demonstrate knowledge and understanding of the legal and ethical codes of conduct for teachers and how they guide teacher behaviour.</p> <p>LI 1.1 State the code of ethics for teachers.</p> <p>LI 1.2 Explain how the code of ethics guides teachers' practice, professional conduct and relationship with stakeholders.</p> <p>LI 1.3 State the role of the head teacher in enforcing the code of ethics.</p> <p>LI 1.4 Prepare and deliver a sample lesson reflecting teacher professional ethics, good conduct, and appropriate relationship with all learners within the context of GESI (NTS 1d, 2a).</p>	<p>30 mins</p>

	<p>LO 2: Demonstrate knowledge and skill of engaging positively with all stakeholders (colleagues, learners, parents, school management committee (SMC), parent association and wider public) as an agent of change in a school’s community of practice.</p> <p>LI 2.1 Identify at least three stakeholders within the school’s community of practice.</p> <p>LI 2.2 Explain the role of stake holders in promoting a strong community of practice.</p> <p>LI 2.3 Explain the role of the teacher as an agent of change (NTS 1e, 1f and 1g).</p> <p>LO 3: Exhibit positive teacher identity by acting as a good role model for learners.</p> <p>LI 3.1 Identify at least three characteristics of a good teacher.</p> <p>LI3.2 Explain how the attributes of a good teacher promote a strong community of practice (NTS 1f, 1g).</p> <p>1.4 Identify other areas of community of practice that will enhance their teaching. (NTS 3m, 3n and 3)</p> <p><i>E.g.</i> <i>Professional TVET Associations such as:</i> <i>Ghana Art Teachers Association (GATA)</i></p>	
<p><b>Give regard for misconceptions and stereotypes, GESI, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.5 Identify possible misconceptions and stereotypes related to their various TVET lessons for the week (NTS 1a, 2e, 2f and 3m).</p> <p><i>E.g.</i> <i>Lesson topic for the week: Tools and materials</i> <i>Misconceptions</i> <i>Females cannot operate tractors and other farm equipment</i></p>	<p>10 mins</p>

	<p>1.6 Discuss possible ways of mitigating these misconceptions and stereotypes in a TVET classroom using the concept of community of practice (NTS 1a, 2c, 2e, 2f, 3e and 3m). <i>E.g.</i> <i>Invite a female machine operator or a machine operator with SEN as role models and resource persons to interact with learners to dispel the misconception.</i></p> <p>1.7 In mixed gender groups (if feasible) list some 21<sup>st</sup> century skills (NTS 2c, 3e, 3g, 3j and 3k). <i>E.g.</i> <i>Communication skills, etc.</i></p> <p>1.8. Identify ways of incorporating ICT in their lesson (NTS 3j). <i>E.g.</i> <i>Surf open educational resources (OERs) and other sources from the Internet for tools and how they are operated, etc.</i></p> <p>1.9 Discuss possible activities you would adopt to develop the 21st century skills in your learners (NTS 3i, 3l). <i>E.g.</i> <i>Hands-on activities</i></p>	
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the TVET curriculum</b></p>	<p>2.1 Discuss samples of your lesson plans in your various TVET domains based on the 2010 SHS Syllabus and link them to the concepts of LOs and LIs*</p> <p><i>Sample Lesson Topics in the TVET: The Production Process in Agriculture, Home Economics, Technical Skills and Visual Art.</i></p>	<p>20 min</p>

	<p><b>Agricultural Science</b>  <i>Sub-topic: Tools and Materials in Agriculture.</i></p> <p><b>Home Economics</b>  <i>Sub-topic: Tools and Materials in Home Economics.</i></p> <p><b>Technical Skills</b>  <i>Sub-topic: Tools and Materials Technical Drawing.</i></p> <p><b>Visual Art</b>  <i>Sub-topic: <b>Tools and Materials in Picture Making</b> (NTS 1a, 1e and 3a).</i></p> <p><b>a) Lesson Objectives:</b> <i>By the end of the lesson learners will be able to;</i></p> <ol style="list-style-type: none"> <li><i>i. List some tools and materials for Agriculture, Home Economics, Technical Skills and Visual Art</i></li> <li><i>ii. demonstrate the proper use of simple tools in Agriculture, Home Economics, Technical Skills and Visual Art</i></li> <li><i>iii. describe how basic tools and materials in Agriculture, Home Economics, Technical Skills and Visual Art can be maintained and preserved</i></li> <li><i>iv. formulate simple safety rules in the use of tools and materials in Agriculture, Home Economics, Technical and Visual Art, etc.</i></li> </ol> <p><b>b) Core Activities:</b></p> <ol style="list-style-type: none"> <li><i>i. Guide learners to list basic tools and materials in Agriculture, Home Economics, Technical and Visual Art</i></li> <li><i>ii. Demonstrate or simulate the use of basic tools in Agriculture, Home Economics, Technical Skills and Visual Art using hands-on activity, smart board, YouTube videos or pre- recorded videos, etc.</i></li> <li><i>iii. Assist learners to try their hands at operating some basic tools using basic instructional guides like flowchart, spidergram, etc.</i></li> <li><i>iv. Guide learners to formulate simple safety rules for the use, maintenance and preservation of tools and materials.</i></li> </ol>	
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	<p><b>c) Evaluation:</b>  <i>Use question and answer, concept mapping, etc., to review the lesson.</i></p> <p><i>*Tease out the learning outcomes and the learning indicators from the sample lesson plans outline.</i></p> <p>2.2 Tease out the LOs and LIs from their sample lessons and compare them with the objectives.</p> <p><i>LO: Demonstrate the appropriate use of tools and materials in Agriculture, Home Economics Technical Skills and Visual Art.</i></p> <p><i>LI 1 List the tools and materials in Visual Art, Technical Skills, Home Economics, and Agriculture</i></p> <p><i>LI 2 State the uses of tools and materials in Visual Art, Technical Skills, Home Economics, and Agriculture</i></p>	
<p><b>3. Teaching, learning and assessment</b></p> <p>► <b>Reading and discussion of the teaching and learning activities.</b></p> <p><b>GESI responsiveness and ICT and 21<sup>st</sup> C skills</b></p>	<p>3.1 Identify gaps in your lesson plans.  <i>E.g.</i>  <i>Possible gaps:</i>  <i>Inadequate teaching and learning resources.</i></p> <p>3.2 Suggest ways you can apply the concept of community of practice to resolve the possible gaps in their lesson plans (NTS 3a, 3b, 3c and 3d).  <i>Possible Solutions:</i>  <i>Field trip to workshops in town to observe the real uses of tools and Materials, etc.</i></p> <p>3.3 Suggest alternative ways of delivering the sample lessons (NTS 3e, 3g).  <i>E.g. Use of:</i>  <i>Video with discussion,</i></p> <p>3.4 Review your sample lesson plans to identify activities that promote GESI responsiveness (NTS 3f, 3m).  <i>E.g.</i>  <i>Classroom arrangement to facilitate effective learners' interaction</i></p>	<p>20 mins</p>

	<p>3.5 Discuss how the session is linked to the use of formative assessment tools and practices (NTS 3k, 3p). <i>E.g.</i> <i>Assessment for learning</i></p> <p>3.6 In groups, suggest other authentic assessment methods that could be used in the sample lesson (NTS 3k, 3p). <i>E.g.</i> <i>Self-assessment</i></p> <p>3.7 Discuss how the lesson makes use of ICT resources to support relevant activities in the sample lesson (NTS 3g, 3j). <i>E.g.</i> <i>Pre-recorded videos</i></p> <p>3.8 Model a teaching activity sample lesson in any of the TVET domains taking due cognizance of the concept of community of practice (NTS 1d). <b>(EXTENSION ACTIVITY)</b></p>	
<p><b>4. Evaluation and review of session:</b></p> <p>► <b>Identifying and addressing any outstanding issues relating to the lesson/s for clarification</b></p>	<p>4.1 Reflect and brain-write what you have learnt in the session (NTS 1a, 1b and 1f). 4.2 Share with the larger group (NTS 1e).</p> <p>4.3 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 6 and provide feedback at the next PLC session (NTS 1a, 1e and 3l). 4.4 Read Session 7 from the PLC Handbook in preparation for the next session (NTS 3b).</p>	10 mins

## TVET PLC Session 7: Knowledge of Educational Frameworks and Curriculum.

TVET Domains:

1. Agriculture
2. Home Economics
3. Technical Skills
4. Visual Art

	<b>Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i></b>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>community of practice</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>professional development</i>, supported learning.</p> <p>1.3 Use the story of the ‘Friendship of the Elephant and the mosquito’ as an ice breaker or give an icebreaker related to the topic <i>The friendship of the Elephant and the Mosquito</i></p> <p>Long ago, the elephant and the mosquito were very good friends. They went to every place together. One hot afternoon, they decided to go fishing to while away the time. After spending the whole afternoon without a catch, the elephant eventually had one. With great joy and excitement, he shouted out to his friend the mosquito, ‘<i>Ko Mosquito, I have caught a big fish</i>’.</p> <p>The mosquito who was then busy chasing some humans for a bite, replied his friend the elephant, ‘<i>really?</i>’ ‘<i>Ko Elephant, is your catch as big as my leg?</i>’ The elephant was dumbfounded and angered at the mosquito’s sense of size. ‘How could I call a thing as small as your leg, which I can’t even see, as big?’ ‘What a disgusting description’, queried the Elephant. A hot argument then ensued between them which eventually broke their long-time friendship,</p> <p>1.4</p> <p>a) <i>Identify the concept of ‘big’ and small’ as was seen by the mosquito and the elephant</i></p>	<b>30 mins</b>

	<p>b) <i>Speak to the dangers of limiting one’s judgement to only one’s horizon?</i></p> <p>c) <i>Suggest how the two friends could have learnt from each other?</i></p> <p>d) <i>Relate this story to the ideas behind the PLC concept</i></p> <p>1.5 Read NTS 2a, 2b, 2c and 2d on the Knowledge of Educational Frameworks and Curriculum and tease out the learning outcomes (LOs) and learning indicators (LIs) of the session and compare these with the LOs and LIs listed below.</p> <p>LO 1: Demonstrate knowledge and understanding of the secondary school curriculum and its learning outcomes.</p> <p>LI 1.1 State the pedagogies prescribed for the delivery of the secondary school curriculum.</p> <p>LI 1.2 Discuss the implication(s) of the prescribed pedagogies in LI 2.2 on teaching and learning.</p> <p>LI 1.3 Give examples of learning outcomes in any subject area.</p> <p>LO 2: Exhibit content knowledge, pedagogical knowledge and pedagogical content knowledge for the school and grade taught</p> <p>LI 2.1 Explain the concept of:</p> <ul style="list-style-type: none"> <li>a) Content knowledge (CK)</li> <li>b) Pedagogical knowledge (PK)</li> <li>c) Pedagogical content knowledge (PCK)</li> </ul> <p>LI 2.2 Explain the relationship between the three concepts as in a, b, and c.</p> <p>LI 2.3 Describe how pedagogical content knowledge will help in lesson preparation and delivery (NTS 2b, 2c).</p>	
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	<p>1.6 Identify and discuss how TVET knowledge and skills (as it relates to the various domains) are articulated within the Educational Frameworks and Curriculum (NTS 1a, 2b and 2d). <i>E.g.</i> <i>TVET domains concentrate on hands-on activities, etc.</i></p> <p>1.7 Ask teachers to explain the concept of: a) Content knowledge (CK) b) Pedagogical knowledge (PK) c) Pedagogical content knowledge (PCK) <i>E.g.</i> <i>CK describes knowledge of subject matter, etc.</i></p> <p>1.8 Describe how pedagogical content knowledge will help in lesson preparation and delivery (NTS 2b, 2c). <i>E.g.</i> <i>PCK helps the teacher to present same aspects of the content in different ways to support differentiation</i></p>	
<p><b>Give regard for misconceptions and stereotypes, GESI, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.9 Identify possible misconceptions and stereotypes in the various TVET lesson topics for the week (NTS 2f, 3f and 3m). <i>E.g.</i> <i>Lesson Topic: Career Opportunities in:</i> a) Agriculture b) Home Economics c) Technical Skills d) Visual art <i>Possible misconceptions and stereotypes</i> <i>Agriculture careers are not a profession for learned people, etc.</i></p> <p>1.10 Discuss possible ways to mitigate these misconceptions and stereotypes in TVET (NTS 1a, 2f, 3a, 3g, 2j and 3e). <i>E.g.</i> <i>Invite role models/resource persons that have overcome these stereotypes and have achieved successes in the TVET domains in the community, etc.</i></p>	<p>10 mins</p>

	<p>1.11 In mixed gender groupings (if feasible) list some 21<sup>st</sup> century skills and share with the whole group (NTS 2c 3a). <i>E.g.</i> <i>Communication skills, etc.</i></p> <p>1.12 Identify ways of incorporating ICT in your lesson (NTS 1a, 3j). <i>E.g.</i> <i>Surf Open Educational Resources (OERs) and other Internet sources for information on knowledge of educational frameworks and curriculum, etc.</i></p> <p>1.13 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills in their learners such as communication skills, collaboration, observation and enquiry skills, digital literacy, creativity and personal development skills (NTS 3e, 3h and 3j). <i>E.g.</i> <i>Learners to do group PowerPoint presentations to facilitate digital literacy, collaborative skills, etc.</i></p>	
<p><b>2 Planning for teaching, learning and assessment activities for the lesson/s making links to the TVET curriculum</b></p>	<p>2.1 Discuss samples of your lesson plans in your various TVET domains based on the 2010 SHS syllabus and link them to the concept of Knowledge of Educational Frameworks and Curriculum*.</p> <p>Sample Lesson Topics in the TVET domain: Topic: Scope and importance of: Agriculture, Home Economics, Technical Skills and Visual Art. Sub-topic: Career opportunities in Agriculture, Home Economics, Technical Skills and Visual Art.</p> <p><b>a) Objectives for the lesson:</b> <i>By the end of the lesson, the learner will be able to:</i></p> <ol style="list-style-type: none"> <li><i>i. Mention at least five career opportunities in Agriculture, Technical skills, Home Economics, and Visual Art</i></li> <li><i>ii. List the qualifications needed for entering into the career opportunities mentioned in i. above</i></li> <li><i>iii. State their career preferences.</i></li> </ol>	<p>20 mins</p>

	<p><b>b) Core Activities</b></p> <ul style="list-style-type: none"> <li>i. Surf OERs and other sources on the Internet to discover career opportunities in Agriculture, Home Economics, Technical Skills and Visual Art</li> <li>ii. Discuss qualifications needed for assessing career opportunities in Agriculture, Home Economics, Technical Skills and Visual Art</li> <li>iii. Invite a career expert in TVET to interact with learners</li> <li>iv. Discuss the career preferences of learners in relation to their capabilities and desires.</li> </ul> <p><b>c) Evaluation:</b> Use question and answers to evaluate the lesson *Teachers would be guided to tease out the learning outcomes and learning indicators from sample lesson plan</p> <p>2.8 Tease out the LOs and the LIs from your sample lesson plans. E.g. LO: Demonstrate Knowledge and understanding of the different career opportunities in Agriculture, Technical skills, Home Economics, and Visual Art.</p> <p>LI 1.1 Mention at least five career opportunities in Agriculture, Home Economics, Technical skills and Visual Art etc.,</p>	
<p><b>3 Teaching, learning and assessment</b></p>	<p>3.1 Identify gaps in your lesson plans (if any) and use your knowledge of the secondary school curriculum to resolve them (NTS 1a, 1c). E.g. Possible gaps: Inadequate teaching and learning resources, etc. Possible Solution: Use field trips to relevant industries in town or beyond to observe the real application of the careers.</p> <p>3.2 Suggest alternative ways of delivering the sample lessons (NTS 3f, 3j). E.g., use of: Pre-recorded video to show variety of career opportunities, etc.</p>	<p>20 mins</p>

	<p>3.3 Review your sample lesson plans to identify activities that promote GESI responsiveness (NTS 2f, 3f, 3g and 3h). <i>E.g.</i> <i>Classroom arrangement to facilitate better learner to learner interaction as well as easy teacher assess to learners</i></p> <p>3.4 Discuss how the session is linked to the use of formative assessment tools and practices. <i>Learners to self and peer review or assess their work</i></p> <p>3.5 In groups, suggest authentic summative assessment methods that could be used in the sample lesson (NTS 2e, 3k, 3l and 3o). <i>E.g.</i> <i>Develop a check list indicating stages of the activity</i></p> <ul style="list-style-type: none"> <li><i>i. Development process</i></li> <li><i>ii. Appropriate use of tools/material</i></li> <li><i>iii. Draft/craftsmanship (Composition-appropriate use of principles and elements of design, Colour and tone, etc. for 2-D works)</i></li> <li><i>iv. Originality</i></li> </ul> <p>3.6 Model a teaching a teaching activity in the sample lesson in any of the TVET domains (NTS 1c, 1f and 3a). <b>(EXTENSION ACTIVITY)</b></p>	
<p><b>4 Evaluation and review of session:</b></p>	<p>4.1 Brain-write what they have learnt in the session (NTS 1a, 1b, 1e and 1f).</p> <p>4.2 What they have written with the larger group (NTS 1e).</p> <p>4.3 Ask questions on any issue that need further clarification.</p> <p>4.4 Identify a critical friend to observe you in teaching your lessons in relation to PLC session 7 and provide feedback at the next PLC Session (NTS 1a, 1e and 3l).</p> <p>4.5 Read Session 8 from the PLC Handbook in preparation for the next session (NTS 3b).</p>	<p>15 mins</p>



	<p>different developmental stages.</p> <p>LO 2: Demonstrate knowledge and skills in harmonizing and directing learners varied cultural, linguistic, socio-economic and educational backgrounds in their planning and teaching.</p> <p>LI 2.1 Identify at least four possible cultural linguistic and backgrounds found in Ghanaian Senior High Schools,</p> <p>LI 2.2 Discuss at least three learning approaches/styles that facilitates learning among learners from varied cultural, linguistic, socio-economic and educational backgrounds.</p> <p>LO 3: Demonstrate knowledge and understanding of GESI issues.</p> <p>LI 3.1 Mention at least five GESI related issues in learning.</p> <p>LI 3.2 Outline the need for incorporating GESI issues in classroom.</p> <p>1.4 Show you can help learners relate concepts from the varied cultural, linguistic, socio-economic and educational backgrounds to the learning of TVET (NTS 2f).</p> <p><i>E.g.</i> <i>Incorporating traditional symbols into designs, etc.</i></p> <p>1.5 Ask teachers to identify different learning styles of learners that will enhance teaching of their subjects (NTS 2e, 2f, 3e and 3g).</p> <p><i>E.g.</i> <i>Tactile learning, etc.</i></p> <p>1.6 Identify other related areas on knowledge of learners that will enhance the delivery of the TVET curriculum (NTS 2e, 2f and 3m).</p> <p><i>E.g.</i> <i>Learner's educational background</i></p> <p>1.7 Identify at least four possible cultural and linguistic backgrounds found in Ghanaian Senior High Schools that can influence the learning of TVET subjects</p> <p><i>E.g.</i> <i>Learners from different cultures are exposed to different artefacts such as those in urban areas use gas stoves for cooking while those in rural areas use wood for cooking</i></p>	
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<p><b>Give regard for misconceptions and stereotypes, GESI, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.8 Identify possible misconceptions and stereotypes in your various TVET domains (NTS 3m). <i>Possible misconceptions and stereotypes</i> <i>TVET is reserved for people with little intellectual endowment hence they can't set targets and attain them, etc.</i></p> <p>1.9 Discuss possible ways to mitigate these misconceptions and stereotypes in TVET (NTS 3e, 3f and 3m). <i>E.g.</i> <i>Invite role models/resource persons that have overcome these stereotypes and have achieved successes in their TVET domains within the society, etc.</i></p> <p>1.10 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills in your learners such as communication skills, collaboration, observation and enquiry skills, digital literacy, creativity and personal development (NTS 3a, 3e, 3h and 3j). <i>E.g.</i> <i>Learners doing PowerPoint presentations in groups, etc.</i></p>	<p>10 mins</p>
<p><b>2 Planning for teaching, learning and assessment activities for the lesson/s with links to the TVET curriculum</b></p>	<p>2.1 Discuss samples of your lesson plans in your various TVET domains based on the 2010 SHS Syllabus and link them to the concepts of LOs and Lis*</p> <p><i>Sample Lesson Topics in the TVET domain:</i> <i>Sub-topic: Work ethics in Agriculture Home Economics, Technical skills and Visual Art</i></p> <p><b>a) Objectives</b> <i>By the end of the lesson learners will be able to;</i></p> <ul style="list-style-type: none"> <li><i>i. Explain the concept work ethics as it pertains to TVET.</i></li> <li><i>ii. State at least four work ethics in Agriculture Home Economics, Technical skills and Visual Art.</i></li> <li><i>iii. Discuss qualities that promote good work ethics in Agriculture Home Economics, Technical skills and Visual Art.</i></li> </ul> <p><b>b) Core activities</b></p> <ul style="list-style-type: none"> <li><i>i. Guide learners in groups to explain the concept of work ethics.</i></li> <li><i>ii. Guide learners to identify and discuss in mixed ability/gender groups, what constitutes bad work ethic in TVET.</i></li> <li><i>iii. Guide learners to discuss the qualities that promote good work ethics in groups.</i></li> </ul>	<p>20 mins</p>

<p><b>Teaching, learning and assessment</b></p>	<p><b>c) Evaluation</b></p> <ul style="list-style-type: none"> <li>i. Evaluate the lesson by using question and answer method.</li> <li>ii. In groups, assign learners to visit any local workshop in the community to observe their work ethics and report.</li> </ul> <p><i>* Tease out the learning outcomes and the learning indicators from the sample lesson plans outline.</i></p> <p><i>LO: Demonstrate Knowledge and understanding of work ethics in Agriculture, Home Economics, Technical Skills and Visual Art.</i></p> <p><i>LI 1.1 Explain work ethics in Visual Agriculture, Home Economics, Technical Skills and Visual Art, etc.</i></p> <p>3.1 Identify gaps in your lesson plans (if any) and use your knowledge of educational framework and curriculum to resolve them (NTS 1a, 2c, 2e and 2f).  <i>E.g.</i>  <i>Possible gaps:</i>  <i>a) absence of differentiated teaching/learning methods</i>  <i>Possible Solution:</i>  <i>Teachers' lesson plan should show variety of teaching and learning strategies appropriate for learners with different abilities.</i></p> <p>3.2 Suggest alternative ways of delivering the sample lessons (NTS 3e, 3g and 3i).  <i>E.g.</i>  <i>Portfolio building, etc.</i></p> <p>3.3 Suggest other authentic assessment methods that could be used in the sample lesson. (NTS 3k, 3l, 3m and 3n).  <i>E.g.</i>  <i>Observation</i></p> <p>3.4 Discuss how the lesson can make use of ICT resources to support relevant activities in the NTS (NTS 3j).  <i>E.g.</i>  <i>Pre-recorded videos on work ethics</i></p> <p>3.5 Model a teaching activity in the sample lesson in any of the TVET using ICT.  <b>(EXTENSION ACTIVITY)</b></p>	<p>20 mins</p>
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<p><b>4 Evaluation and review of session:</b></p> <p>► <b>Teachers need to identify critical friends to observe lessons and report at next session</b></p>	<p>4.1 Brain write two key ideas you are taking away from the lesson.</p> <p>4.2 Share with the larger group</p> <p>4.3 Raise any unresolved issues for clarification</p> <p>4.4 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 8 and provide feedback at the next PLC session.</p> <p>4.5 Read Session 9 from the PLC Handbook in preparation for the next session.</p>	<p>15 mins</p>
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## TVET PLC Session 9: Managing the Learning Environment

NB. TVET Domain:

1. Agriculture
2. Home Economics
3. Technical Skills
4. Visual Art

	Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i>	Time in session
<p><b>1. Review of previous session and introduction to new session</b></p>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>knowledge of learners</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>knowledge of learners</i>, supported learning.</p> <p>1.3 Read NTS 3a, 3b and 3c of and tease out the learning outcomes (LOs) and learning indicators (LIs) of the session for a discussion of the relationship between the LOs and the LI with colleagues (NTS 3a, 3b and 3c).</p> <p style="padding-left: 40px;">LO 1: Demonstrate the ability to plan and deliver (varied and challenging) lessons that achieved the intended learning outcomes.</p> <p>LI 1.1 Exhibit a sample plan or forecast that indicate a long-term and short-term (termly, weekly and daily) plans showing clearly how learners are to progress within the context of the prescribed Senior High School curriculum and its expected learning outcomes.</p> <p>LI 1.2 Describe how varied teaching and assessment strategies as well as ICT and GESI issues can be integrated in the teaching and learning process in the Senior High Schools.</p> <p>LO 2: Demonstrate use of reflective practice and small-scale action research findings to improve teaching and learning.</p> <p>LI 2.1 Identify at least one area to improve on each term.</p> <p>LI 2.2 Provide a gender responsive action plan to guide practice,</p> <p>LI 2.3 Exhibit of a reflective journal showing the benefits of conducting lesson evaluation by teachers and learners.</p> <p>LO 3: Exhibit the ability to create a safe, encouraging learning environment.</p>	<p><b>30 mins</b></p>

	<p>LI 3.1 Identify the elements of a safe and encouraging learning environment.</p> <p>LI 3.2 Establish clear classroom rules and routine to promote positive behaviour among learners.</p> <p>1.4 Discuss how TVET concepts can be employed in managing the learning environment.</p> <p><i>E.g.</i>  <i>Adaptation of safety rules as in the studios, workshops, farms and in the laboratories into all learning environment</i></p> <p>1.5 identify other related areas of managing the learning environment that will enhance the teaching and learning of TVET.</p> <p><i>E.g.</i>  <i>Organizing:  jury sessions to encourage peer assessment, etc.</i></p>	
	<p>1.6 In your TVET domain groups identify possible misconceptions and stereotypes in your various lesson topics for the week.</p> <p><i>E.g.</i>  <i>Lesson Topic:</i>  <i>a) Agriculture: (General Management Practices of a Farm (Plant/animal), Machinery and Implements)</i>  <i>b) Home Economics: Kitchen Safety and Sanitation</i>  <i>c) Technical Skills: Health Safety and Protection</i>  <i>d) Visual art: Studio Maintenance</i>  <i>Possible misconceptions and stereotypes</i></p> <ul style="list-style-type: none"> <li><i>i. Agriculture: care for agricultural tools, implements, animals and plants are for males and difficult for females.</i></li> <li><i>ii. Home Economics: cleaning and care for the Kitchen is for females not males</i></li> <li><i>iii. Technical skills: wearing of boots and other protective gears are for males and not suitable and appropriate for learners with SEN.</i></li> <li><i>iv. Visual Art: Visual art learners are dirty, etc.</i></li> </ul> <p>1.7 Discuss possible ways to mitigate these misconceptions and stereotypes in TVET.</p> <p><i>E.g.</i>  <i>Invite a role model who has achieved success in their respective fields of TVET (either female, male or/and person with SEN) as resource persons to interact with learners as a way of helping learners to overcome these stereotypes in Agriculture, Home Economics, and Visual Art</i></p>	<p>10 mins</p>

	<p>1.8 Discuss possible activities you would adopt to develop 21<sup>st</sup> century skills in their learners such as creativity, communication skills, collaboration, observation and enquiry skills, digital literacy and personal development skills.</p> <p><i>E.g.</i>  <i>Group learners into mixed ability groups to clean workshops, studios, kitchens and farms, etc.</i></p>	
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s making links to the TVET curriculum</b></p>	<p>2.1 In your TVET domain groups discuss your sample lesson plans based on the 2010 SHS Syllabus and link them to the concepts of LOs and Lis*</p> <p><i>Sample Lesson Topics in the TVET domains for the week:</i></p> <p><i>Lesson Topic:</i></p> <ul style="list-style-type: none"> <li><i>a) Agriculture: (General Management Practices of a Farm (Plant/animal/Machinery and Implements)</i></li> <li><i>b) Home Economics: Kitchen Safety and Sanitation)</i></li> <li><i>c) Technical Skills: Health Safety and Protection</i></li> <li><i>d) Visual art: Studio Maintenance</i></li> </ul> <p><b>d) Objectives:</b></p> <p><i>By the end of the lesson, learners will be able to:</i></p> <ul style="list-style-type: none"> <li><i>i. State how to ensure safety and protection practices on the farm (as regards plant and animal machinery and implements), kitchen, laboratories, workshops and studios before, during and after work,</i></li> </ul> <p><i>E.g.</i></p> <p><b>Before work:</b>  <i>Clean workshops, laboratories. Studios, etc. before the start of work making sure the environment is free of accident-causing items such as water, oil, cutting and piecing object on the floor etc.</i></p> <p><b>During Work:</b>  <i>Use appropriate tools in the right way(s)</i></p> <p><b>After work:</b></p> <ul style="list-style-type: none"> <li><i>i. Clean floors and tools, pack and cover equipment, tools and materials at their appropriate places, switch off machines and electrical gadgets, close</i></li> </ul>	<p>20 mins</p>

	<p>windows, doors and cabinets, etc.</p> <p>ii. <i>Demonstrate through hands-on activity safety and protection practices on the farms, kitchens, laboratories, workshops and studios,</i></p> <p>iii. <i>Develop at least five safety rules on the farms, kitchens, laboratories, workshops and studios, etc.</i></p> <p><b>b) Core activities:</b></p> <p>I. <i>Guide learners to state five safety rules on the farm, kitchen, laboratories, workshops and studios,</i></p> <p>II. <i>Demonstrate through simulation/demonstration basic safety and protection practices on the farms kitchens, laboratories, workshops and studios for learners to observe.</i></p> <p>III. <i>Guide learners to surf OERs and other sources on the Internet to discover other safety and protection practices elsewhere.</i></p> <p>IV. <i>Guide learners to try their hands on basic safety and protection practices on the farms, kitchens, laboratories, workshops and studios</i></p> <p>V. <i>Put learners in mixed ability/gender groups (where possible) to formulate simple safety and protection rules for the farms, kitchens, laboratories, workshops and studios.</i></p> <p><b>Evaluation:</b></p> <p>I. <i>Evaluate learners progress by providing check lists for learners to use to re-enact basic safety and protection practices on farms, kitchens, laboratories, workshops and studios, etc.</i></p> <p>II. <i>Organise a jury session for learners to assess themselves and their peers' work.</i></p> <p><i>* Tease out the learning outcomes and the learning indicators from the sample lesson plans outline.</i></p> <p>2.2 Tease out the Los and Lis from the sample lesson. LO: <i>Demonstrate Knowledge and understanding of the different learning environments in the respective TVET domains</i></p>	
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	<i>LI 1.1 State at least 2 learning environments in your TVET domain, etc.</i>	
<b>3. Teaching, learning and assessment</b>	<p>3.1 Discuss how the NTS 3a, 3b and 3c) i.e., Managing the Learning Environment will help to promote teaching and learning of TVET in the Senior High Schools. <i>E.g.</i> <i>Ensure safety of all learners, etc.</i></p> <p>3.2 Suggest alternative ways of delivering the sample lessons. <i>E.g. use of:</i> <i>a) work-based learning to provides opportunity for learners to engage in Hands-on-activities in</i></p> <p>3.3 Review your sample lesson plans to identify activities that promote GESI responsiveness, <i>E.g.</i> <i>a) classroom arrangement to promote group and teamwork among learners of different socio-economic and religious background, etc.</i></p> <p>3.4 In your domain groups (where possible) to suggest authentic assessment methods that could be used in the sample lesson. <i>E.g.</i> <i>a) jury to promote self- appraisal among learners, etc.</i></p> <p>3.6 Model a sample lesson in any of the TVET domains taking due cognizance of the learning environment. <b>(EXTENSION ACTIVITY)</b></p>	20 mins
<b>4 Evaluation and review of session:</b>	<p>4.1 In your TVET domain, write and share what you have learnt in the session on a flip chart</p> <p>4.2 Ask questions on any issue that need further clarification.</p> <p>4.3 Invite a critical friend to observe you in teaching your lessons in relation to PLC Session 9 and provide feedback at the next PLC session.</p> <p>4.4 Read Session 10 from the PLC Handbook in preparation for the next session.</p>	15 mins

## TVET PLC Session 10: Teaching and Learning

NB. TVET Domain:

1. Agriculture
2. Home Economics
3. Technical Skills
4. Visual Art

	<b>Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i></b>	<b>Time in session</b>
<b>1. Review of previous session and introduction to new session</b>	1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>managing the learning environment</i> , which you think impacted learning positively.	<b>30 mins</b>
	<p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>managing the learning environment</i>, supported learning.</p> <p>1.31 Read NTS 3d, 3e, 3f, 3g, 3h, 3i, 3j, 3k and 3l of the NTS under the sub- domain <i>Teaching and Learning</i>, tease out possible learning outcomes (LOs) and learning indicators (LIs) for the session and compare them with the LOs and Lis listed below.</p> <p>LO 1: Demonstrate understanding and skill in using variety of teaching strategies that encourages learner participation and critical thinking.</p> <p>LI 1.1 identify at least four teaching strategies in teaching and learning.</p>	25 mins

	<p>LI 1.2 Explain how teaching strategies will help learner participation and critical thinking. ref. <a href="https://flippedlearning.org">https://flippedlearning.org</a></p> <p>LO 2: Demonstrate the skill of involving all learners including girls and SEN learners.</p> <p>LI 2.1 Explain how learners especially girls and SEN can be involved in teaching and learning.</p> <p>LI 2.2 Identify at least five teaching and learning resources that could help learners especially girls and SEN to ensure their progression.</p> <p>LO 3: Demonstrate knowledge and skill of using a variety of teaching and learning resources including ICT that enhance learning.</p> <p>LI 3.1 Identify at least five teaching and learning resources.</p> <p>LI 3.2 Examine how the teaching and learning resources including ICT will enhance learning.</p> <p>1.4 Identify and discuss how TVET knowledge (as it relates the various domains) is articulated within teaching and learning activities in the SHS syllabus (NTS 2a, 2e and 3h). <i>E.g.</i> <i>The 2010 SHS Syllabus in the various TVET domains is designed to equip learners with scientific knowledge and practical skills to make them ready for higher education and the job market.</i></p> <p>1.5 Identify specific teaching and learning strategies that enhance the delivery of TVET lessons (NTS 2c, 2d, 2e). <i>E.g.</i> <i>Competency Based Training (CBT),, etc.</i></p> <p>1.6 Identify possible misconceptions and stereotypes in your TVET lesson topics for the week (NTS 3m). <i>E.g.</i> <i>Lesson Topic: Enterprise Management in:</i> <i>a) Agriculture</i> <i>b) Home Economics</i> <i>c) Technical Skills</i> <i>d) Visual art</i></p>	10 mins
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	<p><i>Possible misconceptions and stereotypes</i></p> <ul style="list-style-type: none"> <li>a) <i>Home Economics: One requires a lot of money to start up a business.</i></li> <li>b) <i>Visual Art: it is difficult to break into the existing business environment.</i></li> <li>c) <i>Agriculture: You have to start with mechanized farming to be able to make profit.</i></li> <li>d) <i>You need sophisticated machinery in Technical skills careers.</i></li> </ul> <p>1.7 Discuss possible ways to mitigate these misconceptions and stereotypes in TVET (NTS 3e, 3f and 3m).</p> <p><i>E.g.</i></p> <p><i>Invite someone who has nurtured and grown a business to share his experience with students, etc.</i></p> <p>1.8 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills in your learners such as <i>communication skills, collaboration, observation and enquiry skills, digital literacy, creativity and personal development</i> (NTS 3a, 3e, 3h and 3j).</p> <p><i>E.g.</i></p> <ul style="list-style-type: none"> <li>a) <i>Group students to do PowerPoint presentation.</i></li> <li>b) <i>Project/research</i></li> <li>c) <i>Role-play</i></li> <li>d) <i>Fieldtrip</i></li> <li>e) <i>panel presentation</i></li> </ul>	
<p><b>2 Planning for teaching, learning and assessment activities for the lesson/s with links to the TVET curriculum</b></p>	<p>2.1 Discuss samples of their lesson plans in their various TVET domains and use their knowledge in teaching and learning to deliver the lessons</p> <p><i>Sample Lesson Topics in the TVET domain:</i>  <i>Topic: Entrepreneurial skills</i>  <i>Sub-topic: Enterprise Management in visual Art, Home Economics, Agriculture and Technical skills.</i></p> <p><b>a) Objectives</b></p> <p><i>By the end of the lesson learners will be able to;</i></p> <ul style="list-style-type: none"> <li>i. <i>Mention at least four business enterprises.</i></li> <li>ii. <i>State at least three factors to consider when setting up business enterprise.</i></li> <li>iii. <i>Identify the elements of the business plan.</i></li> </ul>	<p>20 mins</p>

	<p><b>b) Core activities</b></p> <ul style="list-style-type: none"> <li>i. Guide learners in their groups to surf and discuss business enterprises they identified.</li> <li>ii. Guide learners to state and discuss factors to consider when setting up a business enterprise in their various groups.</li> <li>iii. In groups, guide learners to surf and discuss elements of business plans for presentation.</li> </ul> <p><b>c) Evaluation</b>  Evaluate the lesson by using question and answer method.  <i>*Tease out the learning outcomes and the learning indicators from the sample lesson plans outline.</i></p> <p>2.2 Ask teachers to tease LOs and LIs from sample lessons  E.g.  LO: Exhibit the essential skills of managing Enterprise in TVET.  LI 1.1 Mention at least four TVET based business enterprises, etc.</p>	
<p><b>3 Teaching, learning and assessment</b></p>	<p>3.2 Suggest alternative ways of delivering the sample lessons (NTS 2h, 2i and 2j).  E.g. use of:  <i>pre-recorded video to show variety of enterprise management</i></p> <p>3.3 Review your sample lesson plans to identify activities that promote GESI responsiveness.  E.g.  <i>mixed ability/gender groupings, etc.</i></p> <p>3.4 Discuss resources that can be used to support teaching and learning in the sample lesson NTS (NTS 3j).  E.g.  <i>Pre-recorded videos, photographs of some entrepreneurs, OERs/internet facilities, projectors, etc.</i></p> <p>3.5 Model a a teaching activity in the sample lesson in any of the TVET domain taking due cognizance of any of the LO and LIs of the PLC session.  <b>(EXTENSION ACTIVITY)</b></p>	<p>20 mins</p>

<p><b>4 Evaluation and review of session:</b></p>	<p>4.1 In pairs, share what you have learnt in this session.</p> <p>4.2 Share with the larger group</p> <p>4.3 Ask questions on any issue that need further clarification.</p> <p>4.4 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 9 and provide feedback at the next PLC session.</p> <p>4.5 Read Session 10 from the PLC Handbook in preparation for the next session.</p>	<p>10 mins</p>
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## TVET PLC Session for Topic 11: Assessment

NB. TVET Domain:

1. Agriculture
2. Home Economics
3. Technical Skills
4. Visual Art

	<b>Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i></b>	<b>Time in session</b>
<p><b>1. Review of previous session and introduction to new session</b></p>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>managing the learning environment</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>managing the learning environment</i>, supported learning.</p> <p>1.3 Read NTS 3k, 3l, 3m, 3n, 3o and 3p and tease out possible learning outcomes (LOs) and learning indicators and compare them with the LOs and Lis listed below (LIs) of the session for a.</p> <p>LO 1: Demonstrate knowledge and skill in identifying through assessment and addressing learners' learning difficulties and misconceptions.</p> <p>LI1. 1 Identify at least four learning difficulties among learners of TVET.</p> <p>LI1.2 State and discuss ways of helping learners of TVET to overcome learning difficulties and misconceptions.</p> <p>LI 1.3 Make appropriate referral of learners with learning difficulties to expertise attention.</p> <p>LO 2: Demonstrate skill in building meaningful records of learners using assessment and communicating same to the learners.</p> <p>LI 2.1 State the different types of assessment records of learners.</p> <p>LI 2.2 Keep a portfolio of students' works and progress report.</p>	<p><b>30 mins</b></p>

	<p>LO 3: Demonstrate awareness of national and school level of assessment of learners</p> <p>LI 3.1 Develop assessment plan to guide assessment activities.</p> <p>LI 3.2 Apply national and school-based assessments tools at the appropriate time to enhance students’ performance and progress.</p> <p>LO 4: Demonstrate skill in using objective and predetermined criteria to assess TVET learners without comparing learner with learner.</p> <p>LI 4.1 Identify the different tools/instruments to use in assessing and analyzing TVET students’ results.</p> <p>LI 4.2 Analyze students results objectively without comparing learner with learner to enhance learners’ progress.</p> <p>1.4 identify further areas of assessment that will enhance your teaching (NTS 3k, 3p).  <i>E.g.</i>  a) <b>Assessment as learning</b> – <i>self assessment, self-reflection, etc.</i></p> <p>1.5 Identify other related areas of assessment that will enhance the delivery of the TVET curriculum (3i, 3n).  <i>E.g.</i>  <i>Observation, etc.</i></p> <p>1.6 Identify possible misconceptions and stereotypes in your various TVET lesson topics for the week (NTS 3m).  <i>E.g.</i>  <i>Lesson Topic: Project (end of course project work) in:</i>  a) <i>Agriculture</i>  b) <i>Home Economics</i>  c) <i>Technical Skills</i>  d) <i>Visual Art</i>  <i>Possible misconceptions and stereotypes</i>  a) <i>perception from learners that project works are difficult to execute, etc.</i></p> <p>1.7 Discuss possible ways to mitigate these misconceptions and stereotypes in TVET (NTS 3e, 3f and 3m).  <i>E.g.</i>  <i>Simplify the process by dividing the project execution plan into phases and provide a step-by-step approach to each phase.</i></p>	10 mins
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	<p>1.8. Identify ways of incorporating ICT in your lesson (NTS 3j). <i>E.g.</i> <i>Take pictures of learners' works for reflective assessment after onsite assessment.</i></p> <p>1.9 Discuss possible activities you would adopt to develop the 21<sup>st</sup> century skills in your learners such as communication skills, collaboration, observation and enquiry skills, digital literacy, creativity and personal development (NTS 3a, 3e, 3h and 3j). <i>E.g.</i> <i>Encourage learners to work in mixed ability/gender groups.</i></p>	
<p><b>2. Planning for teaching, learning and assessment activities for the lesson/s with links to the TVET curriculum</b></p>	<p>2.1 Discuss Ask teachers to discuss samples of their lesson plans in their various TVET domains and link them to assessment *</p> <p><i>Sample Lesson Topics in the TVET domain: Topic: Project work in visual Art, Home Economics, Agriculture and Technical skills.</i></p> <p><b>a) Objectives</b> <i>By the end of the lesson learners will be able to;</i></p> <ul style="list-style-type: none"> <li><i>i. Identification of a challenge that require solution.</i></li> <li><i>ii. Design and produce artifact/a model farm in the various TVET domains.</i></li> <li><i>iii. Write a comprehensive project report including an appreciation of artifacts/model farms stating and explain any symbolisms used.</i></li> </ul>	<p>20 mins</p>

	<p><b>b) Core activities</b></p> <ul style="list-style-type: none"> <li>i. Guide learners to identify challenges that require solution in the community</li> <li>ii. Guide learners to design a solution using the ideation process.</li> <li>iii. Guide learners to execute the artifact/model farm, in the various TVET domains using a phase to phase and a step- by-step approach at each stage.</li> <li>iv. Guide learners in groups to write a project report including an appreciation of their artifact/farm.</li> </ul> <p><b>c) Evaluation:</b>  Evaluate the lesson by organizing jury session, and an exhibition to help each learner to improve upon their own abilities.  *Tease out the learning outcomes and the learning indicators from the sample lesson plans outline.</p> <p>2.2 Tease out LOs and LIs from the sample lesson  LO: Design and execute projects in Agriculture, Home Economics, Technical Skills and Visual Art.  LI 1.1 Design and produce:</p> <ul style="list-style-type: none"> <li>i. <b>Agriculture</b> - Model farm</li> <li>ii. <b>Home Economics</b> – Garment design.</li> <li>iii. <b>Technical Skill</b> – Design of a circuit with a light bulb.</li> <li>iv. <b>Visual Art</b> – Collage</li> </ul>	
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	<p>3.1 Identify gaps in your lesson plans (if any) and use your knowledge of Teaching of Assessment to resolve them (3k, 3o).</p> <p><i>E.g.</i></p> <p><i>Possible gaps:</i></p> <ul style="list-style-type: none"> <li><i>a) lack of well-established TVET workshops/kitchen and model farms in the school</i></li> <li><i>b) Inadequate time allocation on the school time table for elaborate project work</i></li> <li><i>c) Inadequate tools to promote teaching and learning.</i></li> </ul> <p><i>Possible Solution:</i></p> <ul style="list-style-type: none"> <li><i>a) Teachers should make creative use of available resources within the environment.</i></li> <li><i>b) Teachers may adopt after official class lessons and weekends where feasible to accomplish projects</i></li> </ul> <p>3.2 Suggest alternative ways of delivering the sample lessons (NTS 3e, 3g and 3i).</p> <p><i>E.g., use of:</i></p> <p><i>Pre-recorded video to show variety of enterprise management, etc.</i></p> <p>3.3 Review your sample lesson plans to identify activities that promote GESI responsiveness (NTS 3f, 3l and 3m).</p> <p><i>E.g.</i></p> <p><i>Mixed ability/gender groupings during project execution, etc.</i></p> <p>3.4 Discuss how the lesson is linked to the use of assessment tools and practices as assessment <i>for</i>, <i>as</i> and <i>of</i> learning (NTS 3k, 3l, 3m and 3n).</p> <p><i>E.g.</i></p> <p><i>How to score practical lessons</i></p> <p><i>Develop a check list indicating stages of the</i></p>	20 mins
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	<p><i>process, etc.</i></p> <p>3.5 Suggest other authentic assessment methods that could be used in the sample lesson (NTS 3k, 3l, 3m and 3n).</p> <p><i>E.g.</i> <i>Portfolio, etc.</i></p> <p>3.6 Discuss how the session makes use of resources to support relevant activities in the NTS (NTS 3j).</p> <p><i>E.g.</i> <i>Surfing OERs/internet facilities, to assess ideas for designs as well as procedures and processes, etc.</i></p> <p>3.7 Model a teaching activity in the sample lesson in any of the TVET domains taking due cognizance of any of the LOs and LIs of the PLC session. <b>(EXTENSION ACTIVITY)</b></p>	
<p><b>4. Evaluation and review of session:</b></p>	<p>4.1 In pairs, share what you have learnt in this session.</p> <p>4.2 Share with the larger group</p> <p>4.3 Ask questions on any issue that need further clarification.</p> <p>4.4 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 11 and provide feedback at the next PLC session.</p> <p>4.5 Read Session 12 from the PLC Handbook in preparation for the next session.</p>	<p>15 mins</p>

## TVET PLC Session for Topic 12: Training needs

NB. TVET Domain:

1. Agriculture
2. Home Economics
3. Technical Skills
4. Visual Art

	<b>Guidance Notes on Teacher Activity during the PLC Session. <i>What teachers will do during each stage of the session.</i></b>	<b>Time in session</b>
<p><b>1. Review of previous session and introduction to new session</b></p>	<p>1.1 Share one thing you did differently in the classroom and elsewhere based on the session on <i>managing the learning environment</i>, which you think impacted learning positively.</p> <p>1.2 Discuss and summarise in a single sentence why you think what a colleague did by way of application of lessons learned in the session on <i>assessment</i>, supported learning.</p> <p>1.3 Read the write-up about the background of the topic '<b>Training Needs of Teachers</b>' silently for about five minutes.</p> <p><b>Note:</b></p> <p><b><u>Background</u></b>  <i>There are a number of skills and attributes a teacher need to be effective in the classroom. These include:</i></p> <p>a) <b>Discipline Skills:</b> <i>Discipline helps the teacher to be effective. It is a vital component of an effective classroom management. The teacher's discipline ensures that positive behaviour is encouraged in classrooms.</i></p> <p>b) <b>Classroom Management Skills:</b>  <i>By ensuring good behaviour of learners, half of the teacher's battle is won. To be an effective teacher, you should also be able to help learners develop good study and work habits. Good classroom management skills start with setting ground rules to stress the importance of classroom dignity.</i></p>	<p><b>30 mins</b></p>

	<p><b>c) Observation Skills:</b>  <i>It is the prime responsibility of teachers to have a thorough understanding of the cognitive, emotional and social development of learners. Since a classroom is filled with learners coming from different parental backgrounds, it is beneficial for a teacher to be aware of the learning capabilities of different learners.</i></p> <p><b>d) Learner Engagement Skills:</b>  <i>Teachers handle a lot of learners with different mentalities towards learning. While some learners demonstrate keen interest in learning, others are distracted at the smallest provocation. Hence, to be called an effective teacher, you should develop learner engagement skills so that you can motivate your learners.</i></p> <p><b>e) Strong Communication Skills:</b>  <i>Teaching is all about communication. The ability of the teacher to transmit information to the learner in a manner acceptable to each learner is key in the teaching and learning process. The teacher must take note of the fact that different learners process information differently. Hence, it is very important for a teacher to possess effective communication skills to be able to address the needs of the variety of learners under their care.</i></p> <p><b>f) Teaching Skills:</b> <i>Teaching is described as a noble profession, it has the capacity to change the lives of learners for the better. Every effective teacher requires good inter-personal skills along with effective speaking and strong presentation skills. A teacher needs the following teaching skills to be effective in the classroom:</i></p> <ul style="list-style-type: none"> <li><i>i. deep content knowledge</i></li> <li><i>ii. different models of instructional strategies and assessment practices</i></li> <li><i>iii. knowledge of the learning and development of children and adults</i></li> <li><i>iv. clinical supervision skills</i></li> <li><i>v. the ability to model effective instructional and assessment practices</i></li> </ul>	
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	<p><b>g) Subject Matter Expertise:</b>  <i>Every teacher has a specific area of specialization. Putting in years of teaching experience with the appropriate knowledge, skills and continuous professional development will enable teachers to be abreast of changes to the curriculum in their subject areas.</i></p> <p><b>h) Time Management Skills:</b> <i>It is easy to get carried away by different aspects of teaching, but it is important for teachers to ensure that the curriculum is completed within the pre-defined time frame. Teachers should therefore attach importance to the time taken by learners to complete their assignments. Teachers should also follow strategies to organize their working day around educational and other priorities.</i></p> <p><b>i) Planning Skills:</b>  <i>A teacher should be able to clearly plan what the objectives for each lesson are. Planning ahead of time allows a teacher to be more confident about what he/she is going to teach.</i></p> <p><b>j) Passion and Positivity:</b>  <i>Being passionate about teaching is a pre-requisite for becoming an effective teacher. When you are passionate, you can learn from experience and there would be a constant search for methods to improve yourself as a teacher.</i></p> <p><b>k) Be a Team Player:</b> <i>Every teacher should be an active member of a community of practice where they can draw on the expertise of others for the benefit of their learners. Learners on the other hand, would love to have teachers who are friendly and understand them rather than forcing them to learn. Working with learners as members of a team with a common goal and in a non-threatening manner would help them to contribute to the lesson while having fun.</i></p> <p><b>l) Patience:</b>  <i>Managing a classroom full of learners is not the easiest of jobs. There may be some learners who would test teachers' patience. Teachers should not lose their temper during such testing time in order to produce positive outcomes.</i></p>	
	<p><b>Refer.</b>  <a href="https://www.edsys.in/8-skills-teachers-require-effective-teaching/">https://www.edsys.in/8-skills-teachers-require-effective-teaching/</a></p>	

**Retrieved 5/04/2022**

1.4 Read the appendix to the NTS which highlights the training needs of teachers, tease out possible learning outcomes (LOs) and learning indicators (LIs) and compare them with the LOs and LIs listed below.

LO 1: Demonstrate knowledge and understanding of the training needs of teachers under the various Ranks (1 to 6).

LI 1.1 Identify the training needs of teachers under the various Ranks (1, 2, 3, 4, 5 and 6).

Refer to the appendix to the NTS.

LI 1.2 Identify ways of meeting the training needs at each of the Ranks, i.e. (1, 2, 3, 4, 5 and 6).

LI 1.3 List the resources needed to achieve the training needs at each of the Ranks for TVET (NTS 1b, 1c and 3j).

LO 2: Demonstrate understanding of the rationale for the needs at the various levels.

Refer to the appendix to the NTS.

LI 2.1 Identify the professional roles the teacher will be expected to play at the various levels (NTS 1g).

LI 2.2 Discuss the interrelatedness of the roles teachers play at the various levels (Ranks 1, 2, 3, 4, 5 and 6).

LI 2.3. Discuss how the roles played by teachers at the various levels to promote teaching and learning (NTS 3e, 3f, 3g, 3h, 3i and 3j).

LO 3: Demonstrate the skill of identifying possible training avenues and how to avail oneself for capacity building (NTS 1a, 1e and 3a).

LI 3.1 List possible training avenues that a TVET teacher can access for capacity building (NTS 1b).

LI 3.2 Discuss how the avenues listed in LI 3.1 will facilitate training for TVET teachers (NTS 1b).

1.4 Identify and list your own training needs in relation to the three main domains of the NTS (NTS 1a, 1b).

	<p>a) <i>Professional values and attitude. E.g.</i></p> <p>i) <i>Compliance with Ministry of Education and GES ethical codes, etc.</i></p> <p>b) <i>Professional knowledge. E.g.</i>  <i>Models of learning and development of children (NTS 2a, 2b, 2c, 2d, 2e and 2f).</i></p> <p>c) <i>Professional practice. E.g.</i>  <i>Different models of instructional strategies and assessment practices etc</i></p>	
<p><b>Give regard for misconceptions, stereotypes, GESI, ICT, 21<sup>st</sup> century skills, etc.</b></p>	<p>1.5 Identify possible misconceptions and stereotypes that affect training needs of the various TVET teachers (NTS 3m).</p> <p><b>Possible misconceptions and stereotypes</b>  <i>The perception that many in-service training programmes are usually geared towards the generalized teacher and not suited for the TVET teacher, etc.</i></p> <p>1.6 Discuss possible ways to mitigate these misconceptions and stereotypes.  <i>E.g.</i></p> <p>a) <i>Encourage the formation of subject based associations to facilitate specialized in-service training for its members</i></p> <p>1.7 Identify ICT skills training that would be useful for the TVET teacher (NTS 3j).  <i>E.g.</i>  <i>PowerPoint presentation skills, etc.</i></p>	10 mins
<p><b>2 Planning for teaching, learning and assessment activities for the lesson/s</b></p>	<p><b>2.1</b> Discuss samples of their lesson plans in their various TVET domains based on the 2010 SHS syllabus and linked to any of the LOs and LIs for the PLC session *.</p> <p><b>Sample Lesson Topics in the TVET domain:</b>  <i>Topic: Project work in Agriculture, Home Economics, Technical skills and Visual Art.</i></p> <p><b>Sub-Topic:</b></p> <p>a. <i>Agriculture - Model farms</i></p> <p>b. <i>Home Economics – Garment design.</i></p> <p>c. <i>Technical Skills – Design circuit with a light bulb</i></p>	20 mins

	<p>d. <i>Visual Art – Collage</i></p> <p>a) <i>Objectives:</i></p> <p><i>By the end of the lesson learners will be able to:</i></p> <ul style="list-style-type: none"> <li>i. <i>Identify at least four challenges to be addressed</i></li> <li>ii. <i>Design suitable solutions following the ideation process</i></li> <li>iii. <i>Execute the project using the appropriate tools, materials, procedures and processes</i></li> <li>iv. <i>Exhibit finished products for a jury session</i></li> </ul> <p>b) <i>Core Activities</i></p> <ul style="list-style-type: none"> <li>i. <i>In groups, guide learners to research and come out with challenges in their immediate environment</i></li> <li>ii. <i>Guide learners through the ideation process to design appropriate solution(s) to resolve the challenges identified in (i) above</i></li> <li>iii. <i>Guide learners to assemble appropriate tools and materials needed to execute the project</i></li> <li>iv. <i>Guide learners with concept maps/flow chat/work plan/check list to execute the project paying attention to appropriate use of tools and materials</i></li> <li>v. <i>Guide learners to write their project report/appreciation explaining any symbolisms used and their relevance to the work</i></li> <li>vi. <i>Guide learners to exhibit the finished products for a jury session.</i></li> </ul> <p>c) <i>Use jury session to evaluate the final project work.</i></p> <p><i>*Tease out the learning outcomes and the learning indicators from the sample lesson plans outline.</i></p> <p><i>Note: Refer to PLC Session 6 for assessment procedures for practical works</i></p> <p>2.2 <i>Tease out the LOs and the LIs from your sample lesson plans as in (2.1).</i></p> <p><i>LO: Design and execute projects in Agriculture, Home Economics, Technical Skills and Visual Art</i></p> <p><i>LI 1.1 Identify a challenge in your immediate environment, etc.</i></p> <p>2.3 <i>List possible training needs that should be acquired to help deliver the sample lesson successfully, Refer to the appendix to the NTS (Rank 1, 2, 3, 4, 5 and 6)</i></p> <p><i>E.g.</i></p> <p><i>Portfolio development, etc.</i></p>	
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<p><b>3 Teaching, learning and assessment</b></p>	<p>3.1 identify gaps in your lesson planning and delivery skills (if any) and use your knowledge of training needs to resolve them (NTS 1a, 2c).  <i>E.g.</i>  <b>Possible gaps:</b>  <i>Deficiency in portfolio writing skills, etc.</i>  <b>Possible Solution:</b>  <b>Educate teachers on how to build portfolios either in hard copy or in soft copy and identify the variety of items that can go into a portfolio in TVET such as:</b>  <i>i. Sketches, etc</i>  <i>viii. Photographs/videos, etc.</i></p> <p><i>Note: Portfolios should not exist only for assessment. They also constitute a private library for the learners' current and future use. Note also that portfolios are a necessary requirement for the scoring of any practical project work.</i></p> <p><b>b) Educate teachers on how to assess practical works E.g.</b>  <i>Develop a check list indicating stages of the process, etc.</i></p> <p>3.2 List the criteria for scoring completed artefact  <i>1. Evidence of Preliminary/idea development processes, etc.</i></p> <p>3.3 Review your sample lesson plans to identify activities that promote GESI responsiveness (NTS 3f, 3m).  <i>E.g.</i>  <i>Mixed ability/gender groupings during project execution</i></p> <p>3.4 Model a teaching activity in the sample lesson in any of the TVET domains taking due cognizance of any of the LOs and LIs of the PLC session.  <b>(EXTENSION ACTIVITY)</b></p>	<p>20 mins</p>
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<p><b>4. Evaluation and review of session:</b></p>	<p>4.1 In pairs, share what you have learnt in this session.</p> <p>4.2 Share with the larger group</p> <p>4.3 Ask questions on any issue that need further clarification.</p> <p>4.4 Identify a critical friend to observe you in teaching your lessons in relation to PLC Session 12 to you.</p>	<p>10 mins</p>
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## Acknowledgements

Special thanks to:

The Ghana Education Service for the oversight of the production of this first PLC Handbook, especially Mr. Prince Charles Agyeman-Duah, Director of Schools and Instructions Division.

The National Teaching Council, especially the registrar, Dr Christian Addai-Poku, for the immense support in ensuring that the National Teachers' Standards are appropriately used.

Robin Todd and all other members of the T-TEL team for contributing to the success of the writing of the manual in diverse ways.

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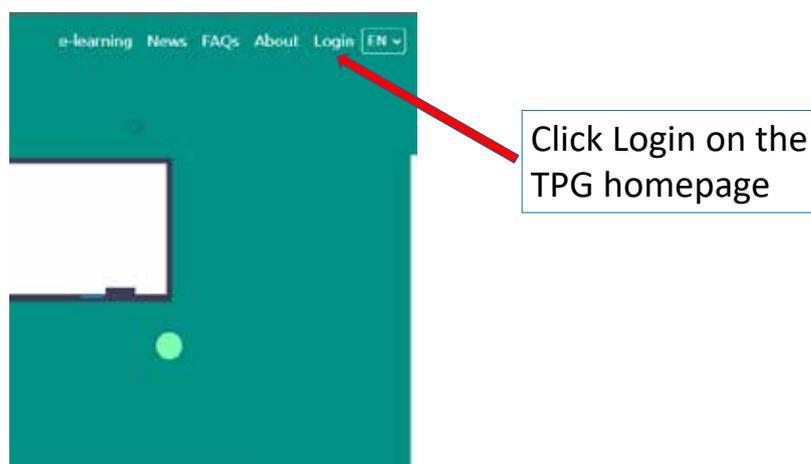
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# APPENDIX

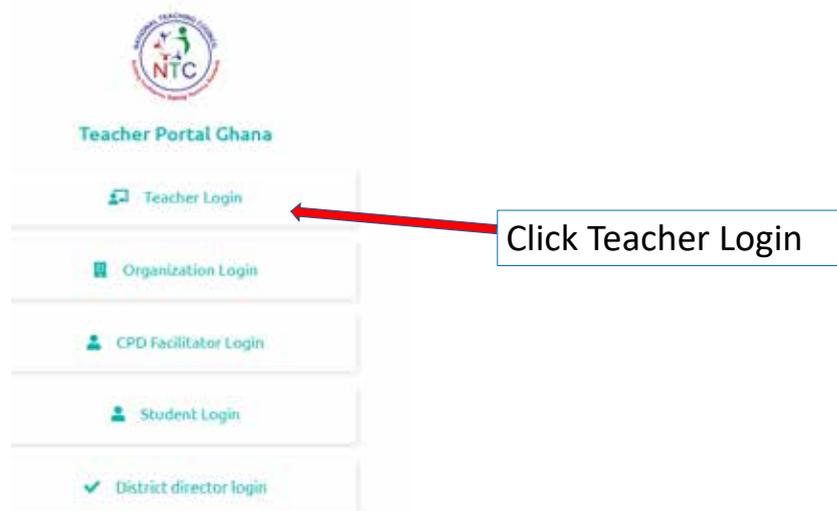
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# HOW TO CHECK CPD POINTS AND TRAINING RECORDS ON TEACHER PORTAL GHANA

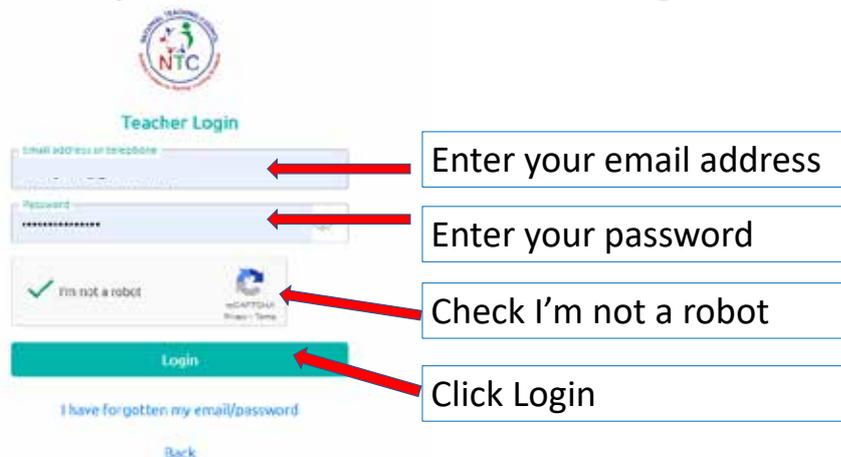
## 1. Visit [tpg.ntc.gov.gh](http://tpg.ntc.gov.gh) and click Login



## 2. On the Login page, click **Teacher Login**



## 3. On the **Teacher Login** page enter your email address and password and then click **Login**



#### 4. After a successful login you will get access to your TPG account (Check image below)



#### 5. To check CPD points, scroll down to **Rank progression**. You will see the CPD points progress bar and actual points accrued (Check image below)



## 6. To view training records, from the side menu tap on Training records (Check image below)

Teacher Portal Ghana

Home

Training program

**Training records**

MTC training programs

Portfolio

Profile

Terminal BSETs

Professional standing

### Training records

Records for training programs registered and/or attended.

Total points: 1.898

Sensitization on Education Policies	Marked as absent
Differentiated Learning	Processed Credits: 1.31
Advanced Mobile Learning with Multimedia (AMLM)	Processed Credits: 0.5788

Click to view training records

List of training programs

# THANK YOU



## Gender Equality and Social Inclusion (GESI) Responsive Checklist for Teachers

In line with the National Teaching Council (NTC) priorities on Gender Equality and Social Inclusion (GESI) in education, this checklist seeks to improve all students' (especially girls and students with special education needs, SEN) overall educational attainment, access, participation, and achievement in schools. It draws inspiration from the Gender Handbook for Teaching Practice Mentors (2018) which aims to improve the GESI responsiveness and day-to-day practice of teachers.

The checklist provides guidance on the enhancement of institutional capacities to use GESI responsive curricula, evaluate teaching-learning materials, organize/create gender responsive classroom interaction, and eliminate stereotypes in the teaching and learning process. The toolkit also supports improvement of the teaching methods and learning assessment techniques, managing sexual maturation and creating a safe space to teach and learn in schools.

GESI Responsive Classroom Competencies	Actions/Strategies:
The Teacher uses <b>GESI responsive pedagogy</b> in classroom.	1) is conscious and deliberate about GESI responsive pedagogy (teaching and learning processes) and pays attention to the specific learning needs of girls, boys and marginalized groups.
	2) gives equal chance to females and males to ask and answer questions in class (and provides extra encouragement to girls and other students who may lack confidence).
	3) uses adjectives used to characterize both male and female roles and behaviours are positive and interchangeably used; reference male and females as role models, leaders, and historical figures in all learning resources.
	4) uses participatory methods such as group work, debates and role play; and ensures equal participation of females & males (giving extra encouragement where needed).
	5) pays attention to the composition of females and males during group work and assigns females leadership roles



	<p>6) ensures that females have equal access to teaching and learning resources (TLMs, TLRs, books, desks, etc.), particularly if males are more assertive and take resources first.</p>
	<p>7) does not view Persons with Disability (PWDs) in a negative light, as they are usually identified in TLMs. Often their disability is put before them – for example, deaf man, handicapped child, blind girl etc.</p>
	<p>8) checks to see if both females and males understand the lesson and is patient with females and males who may be shy or afraid to speak.</p>
	<p>9) provides constructive/positive verbal feedback to both females and males in class.</p>
	<p>10) does not use negative expressions or language that demeans, excludes, or gives females the impression that are not as intelligent or do not need to perform as well as males.</p>
	<p>11) does not use harsh/threatening and demeaning language or actions that instil fear in both females and males.</p>
<p>The Teacher uses <b>GESI responsive language and interaction.</b></p>	<p>1) does not say things that reinforce false assumptions about females and males (e.g., girls are bad at maths/science, boys are bad in english language, girls are always shy, boys are the first to answer).</p>
	<p>2) uses of appropriate pronouns (he/she) that represents everyone alternatively in all classroom engagements.</p>
	<p>3) does not use body language that excludes girls or shows preferential treatment to boys (such as speaking mostly to boys or turning your back to girls) and vice versa.</p>
	<p>4) sets ground rules that prohibit teasing or bullying, particularly from males towards females and students with SENs.</p>
	<p>5) builds students’ (especially females’) skills for self-confidence, assertiveness, speaking out and leadership.</p>
	<p>6) knows the difference between ‘being friendly’ with girls and being flirtatious. Jokes and conversations should not</p>



	<p>have sexual undertones, and teachers should not use terms like ‘girlfriend’ or ‘sweetie’.</p>
	<p>7) reduces the use of “man “related phrases. E.g., the use of the words “chairman”, “mankind”, “freshman”, “policeman”, “manmade” to gender-neutral nouns or phrases such as “chairperson”, “humankind”, “first year”, “police officer”, “person”, etc. Teachers must carefully examine their choice and use of such words.</p>
<p>The Teacher uses <b>GESI responsive TLMs/TLRs.</b></p>	<p>1) reviews all textbooks, pictures, posters, materials and resources before using them to see if they reinforce traditional gender roles (male CEOs /decision makers; females in domestic roles etc.)</p>
	<p>2) ensures that stories, case studies, and examples features contributions of women and girls and men and boys and persons with special education needs (SEN).</p>
	<p>3) identifies traditional gender roles that already appear in books/materials and makes a point to alert students to these portrayals and challenges them when using the materials in class.</p>
	<p>4) discusses with students how portrayals of traditional gender roles limit what female students and other minority groups think they can do and achieve in education.</p>
	<p>5) ensures that TLMs/TLRs fairly inclusive of; various learners in the classroom – differently abled/high, average &amp; low proficiency learners. various groups of society – linguistic, economic, tribe, religious, gender, and disabilities.</p>
	<p>6) ensures that books, materials, or equipment are equally distributed amongst females/males and ensures that the needs of students with SEN are met through diverse presentations of content and illustrations.</p>
<p>The Teacher <b>challenges traditional gender roles and other stereotypes.</b></p>	<p>1) empowers males to be critical of and challenge traditional views of masculinity (e.g. men should be ‘powerful’, should not be ‘weak’, should never cook/clean).</p>



	<p>2) empowers females to be critical of and challenge traditional views of about men and women (e.g., women should be dependent on men, should only be mothers/carers, should not be assertive).</p>
	<p>3) actively uses examples (e.g., exercises, activities, role play, pictures) that challenge or reverse traditional gender roles positively (the best cook in the world in male).</p>
	<p>4) supports and encourages females to achieve in maths and science and aspire to professions traditionally reserved for men (such as engineering, security, medicine etc.).</p>
	<p>7) challenges/ensures that persons with disability are not featured or portrayed with negative stereotypes (poor, cursed, beggars, lazy or burden on society).</p>
<p>The Teacher uses <b>GESI responsive planning</b>.</p>	<p>1) ensures that girls and boys sit randomly in the front, middle, and back row of the classroom or based on student's levels of proficiency for support.</p>
	<p>2) is conscious of learners with physical, visual and auditory needs.</p>
	<p>3) plans to use teaching strategies that ensure the active participation of all learners.</p>
	<p>4) ensures that fixtures and visual aids on the walls are accessible to all learners – sends GESI-responsive messages and is in reach of interaction motive and inspire students to learn.</p>
	<p>5) ensures that the height of shelves and position of tools should be reachable by all users.</p>
	<p>6) if classroom furniture does not have dignity/chastity panels (<i>a shield at the front to protect the prevent body exposure</i>), ensure that female students are comfortably positioned/seated to fully participate in lessons.</p> <p>Stools in the lab/ workshop should be of a good height and size such that all learners can sit comfortably.</p>
	<p>7) creates an enabling, encouraging classroom where males, females and students with SENs are as</p>



	interactive and assertive in expressing their views and responses that should be valued.
The Teacher uses <b>GESI responsive assessment</b> .	1) reviews student attendance every 2-3 months (particularly for females) - if there are problems with attendance, the teacher should follow up with the head teacher, guardians/parents.
	2) reviews student assessments every 2-3 months - if there are large gaps between females and males, the teacher should develop strategies to close the gaps.
	3) ensures that assessment methods do not disadvantage any marginalized group or individual in the class.
	4) differentiates lesson delivery and takes account of the learners' levels, interests & learning styles. Be aware of the types of learners – visual, auditory, kinesthetic tactile, reading and writing learners.
	5) uses a variety of formats to assess (e.g., multiple choice, essay, short answer), papers, group work, practical demonstrations, portfolios, and presentations as options for demonstrating knowledge and understanding.
	6) encourages two-way constructive feedback – teacher and learner.
The Teacher <b>deals with sexual maturation in a gender responsive way</b> .	7) understands sexual maturation issues for both females and males and provides extra support or counselling to students if needed.
	8) takes actions to address negative perceptions and interactions (such as ridicule or teasing)
	9) is sensitive to females needing to use the washrooms or changing rooms more (because they may be uncomfortable to use the toilets during break if shared with boys)
	10) reviews the state of the school's washrooms and ensures that there are female toilets, that have water and rubbish/hygiene bins and sanitary towels if possible.
	11) sensitises the school community to manage sexual maturation issues for both females and males, particularly regarding menstruation.



	<p>12) collaborates with the Guidance &amp; Counselling Coordinator(s) to ensure that the psychosocial and emotional needs of students are met.</p>
<p>The Teacher ensure that the classroom is a <b>safe learning space</b>.</p>	<p>1) establishes clear and consistent classroom rules about how learners relate to teacher and each other.</p>
	<p>2) does not permit teasing, name calling and behaviour that is embarrassing, demeaning or disrespects others' opinions.</p>
	<p>3) protect learners from external abuse and intimidation, including sexual harassment, corporal punishment and bullying.</p>
	<p>4) enquires about student's psychosocial and emotional well-being.</p>
	<p>5) understands and explains sexual harassment to students and how it affects the teaching and learning process – what constitutes sexual harassment, including sexual jokes, name calling, touching and caressing, comments about an individual's sexual life or body, demand for sexual favours, the threat of refusal of sexual favours, retaliation etc.</p>
	<p>6) does not make light of sexual harassment cases and do not suggest that any form of sexual harassment was just a joke or make excuses for or defend alleged sexual harassers. Ensures that the act is reported to the appropriate authorities, and it is dealt with.</p>
<p>The Teacher (with the support of the Head teacher) ensure that <b>school activities are GESI responsive</b>.</p>	<p>1) school cleaning and chores do not reflect or reinforce traditional gender roles. (e.g., only female students run errands or clean up. Roles and responsibilities is a shared effort (where strengths and weakness are compensated for) and domestic chores are fairly distributed.</p>
	<p>2) females and males have equal opportunities to be both prefects and assistant prefects.</p>
	<p>3) females and males have equal access and opportunities to extra-curricular activities.</p>



	4) a Guidance Counsellor is in place to provide support and a safe space for all students.
	5) a GESI club is organised to discuss the process of equity to reach the goal of equality where everyone can reach their highest potentials in school and the world of work. helps females and males feel confident to challenge traditional gender roles in the society.
	6) all forms of corporal punishment are banned, and staff are given training in alternative classroom management techniques.
	7) teachers/SMC sensitise parents and community about the need to support education for all, especially girls' education.

**References:**

FAWE (2011), Increasing Female Primary School Teachers in African Countries: Barriers and Policies, University of Maryland, College Park, MD, USA

GES's Guidelines for Implementing Guidance and Counselling in Pre-tertiary Schools.

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Mlama et al., (2005), Gender Responsive Pedagogy, pp. 10–11, published by the Forum for African Women Educationalists (FAWE).

## Teacher Lesson Observation Sheet

Region:

District:

Circuit:

School:

Name of Teacher:

Class:

Time:

	Question	Yes	No	In Part	Comment
1.	Is the purpose of the lesson clearly stated in the lesson plan and focused on learners achieving the lesson learning outcomes?				
2.	Are the unique needs of female learners, male learners, and learners with special education needs adequately catered for in the lesson plan? For example, the choice of teaching methods, and learning activities.				
3.	Does the teacher maintain a positive and non-threatening learning environment throughout the lesson?				
4.	Are teaching/learning materials and other resources including ICT being used to support learning of all categories of learners?				
5.	Are learners engaged on tasks that challenge them and demonstrate the teacher's high expectation of learner achievement? Does the teacher take into consideration the uniqueness of learners?				

6.	Is there evidence that students are learning?			
7.	Is teaching differentiated to cater for the varied needs of all male learners, female learners, learners with special education needs and those with poor literacy and/ or numeracy proficiency?			
8.	Does the teacher use real life examples which are familiar to learners to explain concepts and their relevance?			
9.	Does the teacher point out or question traditional gender roles when they come up during the lessons as appropriate?			
?	Does the lesson include appropriate interactive and creative approaches e.g., group work, role play, storytelling to support learners achieving the learning outcomes?			
10.	Have cross-cutting issues and /or 21 <sup>st</sup> century skills been integrated in the lesson e.g., problem-solving, critical thinking, communication? If yes, give examples of the issues and skills that have been so integrated.			
11.	Does the teacher incorporate ICT into their practice to support learning?			
12.	Does the teacher encourage learners to ask questions during the lesson?			
13.	Is assessment evident in the lesson? If yes, did it include assessment of, for or as learning and go beyond recall?			

14.	Do learners make use of feedback from teacher and peers?				
15.	Does the teacher evaluate the lesson against the learning outcomes?				
Key strengths in the lesson					
Areas for development					
Next steps for teacher / STEP					

