FIRST TERM
WEEKLY LESSON NOTES – B9
WEEK 1

Week Ending: 06-10-2023	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B9	**Class Size:**	**Sub Strand:** Components Of Computers	
Content Standard: B9.1.1.1 Identify parts of a Computer and Technology Tools	**Indicator:** B91.1.1.1. Discuss the trends in the next generation of computers		**Lesson:** 1 of 2
Performance Indicator: Learners can discuss the trends in the next generation of computers		**Core Competencies:** CC8.2: CP6.1	
New words	Quantum Computing, Supercomputer, Processing Power, Sycamore		
Reference: Computing Curriculum P.g. 40			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Show a short montage of older computer models (from the 1980s and 1990s) to modern-day computers. Ask learners to discuss in pairs or small groups the visible changes and upgrades. Share performance indicators and introduce the lesson. ***Main (35mins)*** Initiate a discussion about the potential features and upgrades we might see in the next generation of computers. Ask learners to brainstorm and list down these features. Share some expert predictions about future computer trends (like AI integration, advanced augmented reality capabilities, or biocomputing). Discuss these as a class, comparing learners' predictions with expert ones. Introduce the concept of quantum computing, emphasizing how it differs from classical computing. • **Quantum Computing** is a super-powered computer that uses special particles called "qubits" to do many calculations at once, making it much faster at solving certain complex problems than regular computers.	Pictures and videos	Discussing the trends in the next generation of computers

• **Classical Computing**: This is the type of computing that uses "bits" that are either in an on (1) or off (0) state to process information. Describe the Google quantum computer, specifically the "Sycamore" processor. Compare its processing power with other supercomputers, highlighting the significant advancements. Using infographics or videos can make this complex subject more accessible to grade 7 learners. <u>Assessment</u> 1. What is quantum computing, and how does it differ from classical computing? 2. Why is Google's "Sycamore" significant in the world of computers? 3. Name one feature you expect to see in the next generation of computers. 4. How might the increased processing power of quantum computers impact industries like medicine or transportation? ***Reflection** (10mins)* Summarize the key points of the lesson. Emphasize the rapid advancement of computer technology and the exciting possibilities that the future holds, as well as the challenges and considerations that come with such advancements. Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• What is quantum computing, and how does it differ from classical computing? • Why is Google's "Sycamore" significant in the world of computers? • Name one feature you expect to see in the next generation of computers. • How might the increased processing power of quantum computers impact industries like medicine or transportation?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		

Week Ending: 06-10-2023	**DAY:**	**Subject:** Computing	
Duration: 60mins		**Strand:** Introduction To Computing	
Class: B9	**Class Size:**	**Sub Strand:** Components Of Computers	
Content Standard: B9.1.1.1 Identify parts of a Computer and Technology Tools	**Indicator:** B9.1.1.1.2. Examine the concept of Perceptual Computing		**Lesson:** 2 of 2
Performance Indicator: Learners can examine the concept of Perceptual Computing		**Core Competencies:** CC8.2: CP6.1	
New words	Perceptual Computing, Gesture Recognition, Voice Command, Sensory Input		
Reference: Computing Curriculum P.g. 40			

Activities For Learning & Assessment	**Resources**	**Progression**
Starter (5mins) Display a brief video clip or animation that demonstrates Perceptual Computing in action – for instance, a computer program reacting to human gestures or voice commands without the use of traditional input devices. Ask learners to discuss in pairs what they observed and how they think the computer is understanding user input. Share performance indicators and introduce the lesson. ***Main (35mins)*** Begin by explaining the overarching concept of Perceptual Computing, emphasizing how computers or devices can 'perceive' and respond to more natural, human-like inputs. Discuss the key features of Perceptual Computing, such as: • Gesture recognition (computers understanding hand or body movements) • Voice command and recognition • Facial recognition • Multi-touch interactions, etc. Highlight how these features differ from traditional computer interactions (keyboard, mouse). Break learners into small groups and assign each group a specific feature of Perceptual Computing. Ask them to discuss and brainstorm potential real-world applications or scenarios where their assigned feature would be useful. <u>Assessment</u> 1. What is Perceptual Computing? 2. How does gesture recognition differ from traditional computer input methods? 3. Name one potential application for voice command in everyday life.	Pictures and videos	Discussing the concept of Perceptual Computing

4. Why might facial recognition be a significant feature in Perceptual Computing? ***Reflection*** ***(10mins)*** Summarize the main points of the lesson, emphasizing the evolution of human-computer interaction and the potential benefits and challenges of Perceptual Computing. Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.		
Homework/Project Work/Community Engagement Suggestions		
• What is Perceptual Computing? • How does gesture recognition differ from traditional computer input methods? • Name one potential application for voice command in everyday life. • Why might facial recognition be a significant feature in Perceptual Computing?		
Cross-Curriculum Links/Cross-Cutting Issues		
None		
Potential Misconceptions/Student Learning Difficulties		
None		