Grade 7 Pre-Technical Studies

Term 3 - 36 complete lesson plans

Ready to teach, in the KICD lesson-plan format | 40-minute lessons | PDF and editable Word

ABOUT THIS PACK

36 complete, ready-to-teach Grade 7 Pre-Technical Studies lesson plans for Term 3, covering computer hardware, introduction to entrepreneurship, production unit and financial goals.

TOPICS IN THIS PACK

Topic	Name	Lessons
4.2	Computer Hardware	8
5.1	Introduction to Entrepreneurship	8
5.2	Production Unit	10
5.3	Financial Goals	10

INSIDE EVERY LESSON PLAN

- The specific learning outcomes, key inquiry question, core competencies, values and PCIs, and the resources needed.
- A timed lesson flow: what the teacher does and what the learners do, from introduction to summary.
- The key content (a worked example, notes or a practical with its expected results), then four practice questions with the answers for the teacher.
- The common mistake to watch for, and ideas for learners who need support and for those ready for more.
- A four-level CBC assessment rubric (EE, ME, AE, BE), homework, and a blank reflection space to fill in after teaching.

A TASTE OF LESSON 1

Meaning of computer hardware

By the end of the lesson, the learner should be able to explain the meaning of computer hardware

> **Computer hardware is the physical parts of a computer that can be seen and touched.**
> Software is the programs and instructions that tell hardware what to do; it cannot be touched.
> Categories of hardware (from the design): input devices, output devices and storage devices.

You also receive this pack as an editable Word file, so you can change any lesson to suit your class before you print it. Lessons follow the order of the KICD curriculum design.

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Meaning of computer hardware

Strand 4.0 Tools and Production > Sub-strand 4.2 Computer Hardware | Lesson 1 of 8 | 40 minutes

SCHOOL	TEACHER	DATE
CLASS / STREAM	TIME	ROLL (B / G)

SPECIFIC LEARNING OUTCOME(S)

By the end of the lesson, the learner should be able to explain the meaning of computer hardware

KEY INQUIRY QUESTION(S)

- How is computer hardware used?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
VALUE	**Peace**	Learners settle differences calmly during group work.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
PCI	**Peer education and mentorship**	Developed through the activities in this lesson.

LEARNING RESOURCES

Computers and available devices (keyboard, mouse, printer, speakers, flash disk, phone camera) | Pictures of hardware devices | Charts | Learners' exercise books

ORGANISATION OF LEARNING

Whole class for the introduction and the summary; pairs or groups of four to five for guided practice; individual work for the independent tasks.

KEY WORDS

hardware | input device | output device | storage device | hardcopy | softcopy | digitizer | removable storage | peripheral

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
6 min	9 min	10 min	9 min	6 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	6	Greet the class and ask: "Key question: how is computer hardware used? Which parts of a computer can you touch?" Take two or three answers, link them to earlier work, then state today's outcome.	Answer the starter question, recall what they already know and read the outcome aloud.
Step 1: Teacher models	9	Take learners through the key ideas on the next page, explaining as you go. Use computers and available devices (keyboard, mouse, printer, speakers, flash disk, phone camera), pictures of hardware devices, charts. Ask learners to predict what comes next before you show it.	Watch, predict the next step, ask questions and note the key steps in their exercise books.
Step 2: Guided practice	10	Give questions 1 and 2. Move round the groups, ask "How do you know?" and correct errors kindly on the spot.	Work in pairs or small groups, explain each step to a partner and check one another's answers.
Step 3: Independent practice	9	Set questions 3 and 4 for individual work. Mark as you walk round and note who needs help in the next lesson.	Work on their own, then swap books with a partner to check.
Summary and conclusion	6	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "Is a keyboard hardware or software?"	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Computer hardware is the physical parts of a computer that can be seen and touched.
Software is the programs and instructions that tell hardware what to do; it cannot be touched.
Categories of hardware (from the design): input devices, output devices and storage devices.
The system unit holds the processor (which does the processing) and the main memory.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What is computer hardware?	**The physical parts of a computer**
2	What is software?	**Programs that tell hardware what to do**
3	Name three categories of hardware.	**Input, output and storage devices**
4	Is a keyboard hardware or software?	**Hardware**

WATCH OUT FOR

Calling a program "hardware" because it is on the screen.

ASSESSMENT RUBRIC - THE FOUR CBC LEVELS

Level	What the learner can do
Exceeds expectations (EE)	Can explain the meaning of computer hardware confidently and accurately, explain the method used, and apply the idea to new or unfamiliar problems.
Meets expectations (ME)	Can explain the meaning of computer hardware accurately in familiar situations; notices and corrects slips without help.
Approaches expectations (AE)	Can partly explain the meaning of computer hardware, or does so with prompts from the teacher or a partner; makes some errors.
Below expectations (BE)	Cannot yet explain the meaning of computer hardware without direct help; needs the idea taught again with concrete objects.

SUPPORT AND EXTENSION

Learners who need support	Sort cards into hardware and software.
Learners ready for more	Is a phone's camera hardware or software? Its photo app? (Answer: The camera is hardware; the app is software)
Inclusion	Seat learners with low vision near the board and read aloud whatever you write; use large, clear, tactile materials; allow extra time; pair with a patient partner; use gestures or Kenyan Sign Language for the key words.

HOMEWORK AND FOLLOW-UP

Redo questions 3 and 4 neatly in the exercise book. Then tell someone at home what you learned about "meaning of computer hardware" and bring one question of your own to ask next lesson.

TEACHER SELF-CHECK

- Did every learner get a turn to handle materials or explain their thinking?
- Did most learners meet the outcome? Write down the names of those who did not.
- Was the pace right — did any step take too long or too short a time?
- Which competency and value did I see learners showing?
- What will I change the next time I teach this lesson?

REFLECTION ON THE LESSON / SELF-REMARKS

Write this after teaching - what worked, what to change, which learners need follow-up.

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Input devices

Strand 4.0 Tools and Production > Sub-strand 4.2 Computer Hardware | Lesson 2 of 8 | 40 minutes

SCHOOL	TEACHER	DATE
CLASS / STREAM	TIME	ROLL (B / G)

SPECIFIC LEARNING OUTCOME(S)

By the end of the lesson, the learner should be able to classify input devices

KEY INQUIRY QUESTION(S)

- How is computer hardware used?

CORE COMPETENCIES, VALUES AND PCIS IN THIS LESSON

COMPETENCY	**Communication and collaboration**	Learners explain their thinking to a partner and report their findings to the group.
COMPETENCY	**Critical thinking and problem solving**	Learners choose a method, check their answers and give reasons for their choices.
VALUE	**Peace**	Learners settle differences calmly during group work.
VALUE	**Responsibility**	Learners look after shared materials and finish every task.
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LEARNING RESOURCES

Computers and available devices (keyboard, mouse, printer, speakers, flash disk, phone camera) | Pictures of hardware devices | Charts | Learners' exercise books

ORGANISATION OF LEARNING

Whole class for the introduction and the summary; pairs or groups of four to five for guided practice; individual work for the independent tasks.

KEY WORDS

hardware | input device | output device | storage device | hardcopy | softcopy | digitizer | removable storage | peripheral

THE LESSON AT A GLANCE

Introduction	Teacher models	Guided practice	On their own	Wrap-up
6 min	9 min	10 min	9 min	6 min

LESSON FLOW

Stage	Minutes	The teacher	The learners
Introduction	6	Greet the class and ask: "How do we put information into a computer?" Take two or three answers, link them to earlier work, then state today's outcome.	Answer the starter question, recall what they already know and read the outcome aloud.
Step 1: Teacher models	9	Take learners through "Input devices enter data and instructions into the computer." (key ideas on the next page), explaining as you go. Use computers and available devices (keyboard, mouse, printer, speakers, flash disk, phone camera), pictures of hardware devices, charts. Ask learners to predict what comes next before you show it.	Watch, predict the next step, ask questions and note the key steps in their exercise books.
Step 2: Guided practice	10	Give questions 1 and 2. Move round the groups, ask "How do you know?" and correct errors kindly on the spot.	Work in pairs or small groups, explain each step to a partner and check one another's answers.
Step 3: Independent practice	9	Set questions 3 and 4 for individual work. Mark as you walk round and note who needs help in the next lesson.	Work on their own, then swap books with a partner to check.
Summary and conclusion	6	Ask two or three learners to state the key idea in their own words. Give this exit question and check the answers: "Which device is used for voice input?"	Say the key idea in their own words and answer the exit question in the exercise book.

KEY IDEAS

Input devices enter data and instructions into the computer.
Keying devices: keyboard, keypad (ATM, phone).
Pointing devices: mouse, touchpad, joystick, stylus.
Scanning devices: scanner, barcode reader (supermarket), QR code reader.
Voice input devices: microphone (voice commands, recordings).
Touch screen: phones, tablets, some ATMs.
Digitizer: a drawing tablet with a pen, used by designers.
Digital cameras: capture photos and video.

PRACTICE QUESTIONS - WITH ANSWERS FOR THE TEACHER

No.	Question	Answer
1	What do input devices do?	**Enter data into the computer**
2	Name a pointing device.	**A mouse**
3	Which device reads prices at a supermarket?	**A barcode reader**
4	Which device is used for voice input?	**A microphone**