

Student Teacher	John Keating	Observer	
Topic / Unit	Hardware and Software	Date	
Class / Key Stage	Year 8	Room	101

My related targets this week are:

Develop more discussion in the classroom.
Use questioning techniques to involve a wider range of pupils in the discussion.

After discussions about my progress, I have identified the following focus for my observer:

I need to develop more “cold-calling” questioning.
This will allow me to command more presence with the pupils and also encourage their engagement in the lesson. I will plan a few key questions in advance and give thinking time before selecting a pupil

What do I want the students to learn? What are the objectives of this lesson?

Pupils understand the difference between hardware and software
Pupils can identify different input and output devices.

What is this lesson building on, and building towards?

Their understanding of computer hardware and software.
This builds on pupils' everyday use of computers and apps, and leads towards understanding how the different parts of a computer system work together.

What might the pupils find difficult, or what misconceptions might they already have?

Use of powerpoint.
Copying / pasting images from the internet.
Identifying the correct items.

What key / new terminology am I introducing?

Software, hardware, input, output, instruction, slides, copy, paste.

What resources do I need?

Powerpoint. Internet Browser.

What health and safety considerations do I need to make?

None.

Lesson Parts

How will the pupils enter the classroom?

Who is doing what?	What adaptations are needed?
Meet and greet at the door. guide to specific desks based on seating plan. Ask all to log on as they enter. Task on board has four items that they have to decide give information into the computer / out of the computer or both.	Text will be clear enough for all to read. Use the seating plan to support pupils who need additional guidance; keep the starter visible throughout.
<u>Summary plan of lesson structure:</u> 1. Pupils enter, register, they consider on-the-bell question on board 2. Discussion on software 3. Teacher demonstration on software 4. Pupils then make software slide 5. Video on software and hardware	6. Discussion on hardware 7. Pupils make hardware slide 8. Discussion on input devices 9. Pupils make input devices slide 10. Discussion on output devices 11. Pupils make output devices slide 12. Final summary and questions on topics covered.

Part 1 Key Learning

Who is doing what?	What adaptations are needed?	How do I check understanding?
Initial discussion about software that is on the school computers or used at home. Ask pupils to suggest familiar examples such as PowerPoint, Paint, Chrome or games and explain what each allows the user to do.	Display the key word 'software' with a short definition and a simple example.	Specific pupils will be asked questions to identify items of software and expand on examples given by others. Cold-call a range of pupils and ask them to justify an example, rather than only naming one.

How will I transition to the next part?

All pupils will be shown how to open PowerPoint and start to enter text.
Model one simple software example before pupils begin their own slide.

Part 2 Key Learning

Who is doing what?	What adaptations are needed?	How do I check understanding?
Pupils are learning to identify and describe key pieces of software. Pupils create a slide with a short description of software and suitable examples / images.	Stop the class and address any misconceptions found with all. Provide an example layout or a short list of familiar software for pupils who need a starting point.	Patrol the room and observe / share good examples with the class. Ask pupils to explain one of their choices and why it is software.

How will I transition to the next phase?

Pupils will be shown how to find and copy / paste images from the internet into PowerPoint. Before moving on, quickly check that pupils have at least one correct software example. Showcase some pupils examples on the board to praise good practice / encourage others and highlight any misconceptions.

Part 3 Key Learning

Who is doing what?	What adaptations are needed?	How do I check understanding?
The same task repeats with a discussion on hardware. Video is shown  youtube.com/watch?v=X8_cKt6PpS4	Pupils are all told to turn their chairs around to face the board during the video. Screens may be locked if needed. Pause the video when needed and keep key words / example images visible for pupils who need extra support.	Video is paused at certain points and questions presented to the class about what we are seeing or what may come next. Use quick classification questions: hardware or software, then input or output.

How will I transition to the next phase?

A similar discussion follows on hardware. Pupils then create a slide on hardware. Mid-way through the task, an example is displayed on the board to assist those struggling with the concept.
A similar discussion then takes place on input and output devices, and pupils make similar slides to reflect their understanding of these concepts.
Check a few examples together before pupils move from the hardware slide to the input and output slides.

How will the pupils leave the classroom?

Who is doing what?	What adaptations are needed?
Final summary of what was covered in the lesson. Cold-call a few pupils to define hardware / software and name one input and one output	Give brief thinking time and allow pupils to refer to their key words or slides before answering.

device. Pupils then save their work and log off.	
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Reflections

What feedback did you receive / reflections do you have on this lesson?
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Some pupils seem very familiar with powerpoint.
In our next lesson with this software, I will introduce extension skills using animation and transitions.

What impact did your adaptations have on pupils? How do you know this?

Cold-calling specific questions to specific pupils (slightly easier questions directed to less-able [pupils and vice-versa) allowed for more engagement and framed pupils in a positive light.

Asking all to turn chairs around for video viewing and class discussion helped to focus them.
Likewise, locking their screens will limit distraction.

What discussion points / questions will you take to your next mentor meeting?
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Discuss the idea of a group project with pupils presenting.