

Lesson Observation Report

Trainee: E.Xample		Date: 9th February 2020	
School/College: Great School		Number in group: 25	
Mentor/Teacher/Tutor: P.Rogress		Year group/attainment: Year 9 set 5	
Focus of Observation:		Lesson Topic: Microscope methods	
<p>UoM ITE Curriculum statements below may suggest comments and targets, but this is not a checklist to be completed.</p> <p>Employ</p> <ul style="list-style-type: none"> accurate, connected subject knowledge curriculum knowledge: analogies, illustrations, examples, explanations and demonstrations build from examples to abstract ideas <p>Focus on:</p> <ul style="list-style-type: none"> pupils' foundational knowledge and skills link to pupils' prior knowledge link to 'big ideas' minimise unnecessary task complexity smaller steps to begin with essential concepts, knowledge, skills and principles misconceptions (identify, prevent) balance introduction, repetition, practice and retrieval of critical knowledge and skills review and practise key ideas plan for high success rate in practice and retrieval tasks <p>Language:</p> <ul style="list-style-type: none"> reading comprehension (questioning, predicting, summarising) writing (planning, drafting, editing) build pupils' oral language 		<p>Subject and curriculum knowledge</p> <p>Literacy - Linking learning back to the keywords in Biology. Numeracy – Total magnification and IAM calculations. Walking pupils through the steps, using a worked example (modelling).</p>	
<ul style="list-style-type: none"> maintain and practise consistent and appropriately high expectations of pupils' knowledge, attitudes and skills take care in making assumptions about individuals or groups link to what pupils already know adapt explanations, instructions etc to individual / group needs increase and decrease scaffolding to facilitate development use modelling to make abstract ideas more concrete utilise images and artefacts as well as verbal representations such as stories and mnemonics select examples and contexts which promote critical awareness of diversity and social or environmental injustice model thought processes in solving example problems metacognition (pupils planning, monitoring, evaluating their own work) develop questioning including wait time extend classroom talk extend and challenge pupils through questioning, seeking justification etc. practice – repeated opportunities plan pupil grouping support paired and group activities establish and reinforce routines give clear and manageable instructions respond consistently and fairly to pupils develop a positive and safe classroom environment, in line with schoolwide expectations 		<p>Planning and teaching</p> <p>How does planning support the lesson? How does the trainee relate to the class? What do you notice about the class and individuals' responses in terms of knowledge, skills and understanding, observed through e.g., discussion with pupils, pupils' actions, pupils' responses (verbal, written)?</p> <ul style="list-style-type: none"> Expectations slide at the start – great that you outlined what you expect from pupils in their online learning. Engagement positively encouraged – 'e' marks for extra engagement which also gives them the opportunity to win a voucher. 'I want to be giving everybody an e mark on the register.' Good use of questioning – differences between what can be viewed under a light microscope and electron microscope, linking back to keywords (resolution). Labelling cells – great use of wait questioning (type your answer but wait until I do a countdown to send your answer). Good use of challenge – include the function of the sub-cellular structure if you know this. Well done for naming those pupils who did not respond to the questions – emphasising the expectations of the lesson, and praising all the pupils who did respond. This resulted in answers from all pupils! Good use of probing questions to further challenge pupils – 'Can you name the green pigment inside the chloroplasts? It absorbs the light needed for photosynthesis?' Labelling a microscope – well done for insisting on answers and not accepting 'I don't know' as options are displayed on the slide. Total magnification calculation – great that you highlighted a microscope has two lenses (on image) which is why we calculate total magnification – helped pupils to put this into perspective. IAM calculations – great that you used a whiteboard to show a worked example and walked the pupils through the steps they need to follow when using a calculator. Referring back to this really helped those pupils who were struggling with this new tricky concept. 	

- use teaching assistants effectively
- understand pupils' differences
- understand pupils' particular barriers to learning (SEND, etc).
- support pupils in moving towards independent work and practice
- Great that you insisted on showing working out and including units for calculations.
- Good use of challenge – including unit conversions in the IAM calculations.
- Independent learning task – complete the Google form. Questions assessing today's learning. Great that you gave pupils a time limit, told them to let you know as soon as they'd finished, include working out and units, and check how many marks each question was worth (all good habits for exams).
- Plenary - Feedback on pupil answers on Google form. Great that you got pupils to 'mark' the answers (anonymously), 'would we give this answer a mark?' 'How could we make this answer better?' – enabled them to reflect on their own answers.

- adapt lessons so that all pupils can meet expectations
- reframe questions to support and motivate all pupils
- structure questions to identify misconceptions
- monitor pupils' work during the lesson
- use formative assessment to make teaching decisions linked to lesson objectives
- provide accurate, clear, encouraging feedback with specific guidance on next steps – verbally where possible
- share model work
- support peer- and self-assessment with appropriate scaffolding
- prompt pupils to justify and evaluate their answers
- develop an efficient approach to assessment, especially of pupils' written work, using codes etc.

Use of assessment

How do trainees assess progress during the lesson e.g., techniques used?

Verbal questioning (challenging and probing) used throughout the lesson.

Independent learning task – Google form assessed understanding of today's learning. Feedback given on pupil answers during lesson time helped pupils to reflect on their score and identify where they can improve.

Key strengths of this lesson

(At least three, at least one subject specific)

1. Engagement in the lesson positively encouraged from the start (expectations slide) and throughout, using lots of verbal praise and naming those pupils who did not respond. This resulted in engagement from every pupil.
2. Great use of challenging questions used to encourage deeper thinking, especially in G&T pupils, such as converting units in IAM calculations.
3. Modelling – good use of the whiteboard to show a worked example of IAM calculations and walking pupils through the steps they need to follow when using a calculator. This worked really well with pupil understanding as IAM calculations are a relatively new (to the pupils), but key, concept.

Targets arising from this lesson

(Up to three clear and concise targets, at least one subject specific. Suggest how each target may be achieved. Discuss and develop these targets in the weekly mentor meeting)

1. Consider the EAL pupils in this class. How can they be supported as we go further into KS4 Biology, introducing new tricky keywords and concepts?

To the trainee: identify how these targets will improve your lessons