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# Moderation for professional learning

**Sarah Earle,**  
with Kendra McMahon,  
outlines how Teacher  
Assessment in Primary  
Science (TAPS) can support  
different ways of moderating



**Figure 1** An open task such as exploring 'rocket mice' provides opportunity to assess understanding

**M**oderation is put forward as the key strategy for improving the reliability of teacher assessment (Harlen, 2007). However, for many teachers the word 'moderation' conjures up ideas of uncomfortable situations in which marking is being checked by others and there are prolonged arguments about tiny features of individual work. In this article, I argue that moderation can be viewed differently: as an opportunity for professional learning that will build confidence, and the reliability of teacher assessment in the long term, rather than a stand-alone checking exercise. I share below three examples of moderation activities that I have used to support discussions about assessment in primary science.

## Background

The Teacher Assessment in Primary Science (TAPS) project is based at Bath Spa University and funded by the Primary Science Teaching Trust (PSTT). This six-year project (2013–2019) seeks to provide support for valid, reliable and manageable assessment in primary science that can also have a positive impact on learning. The TAPS pyramid tool contains self-assessment criteria and examples for subject leaders (Earle *et al.*, 2015) and the new focused assessment database contains plans and examples for class teachers to use, all of which are freely available on the PSTT website ([pstt.org.uk](http://pstt.org.uk)). A key area for many project schools has been the development of a shared understanding

for both primary science and assessment across the school:

- an understanding that classroom assessment information can be utilised by active pupils and responsive teachers;
- an understanding that assessment is more valid when drawn from a range of sources;
- an understanding that reliability of assessment can be supported by moderation discussions that consider what it looks like to have 'got there'.

## Moderation for diagnosis

Working scientifically or scientific enquiry is an area where many teachers lack confidence, but it is often hard to know where to begin CPD (continuing professional development) because

Key words: ■ Moderation ■ TAPS ■ Assessment

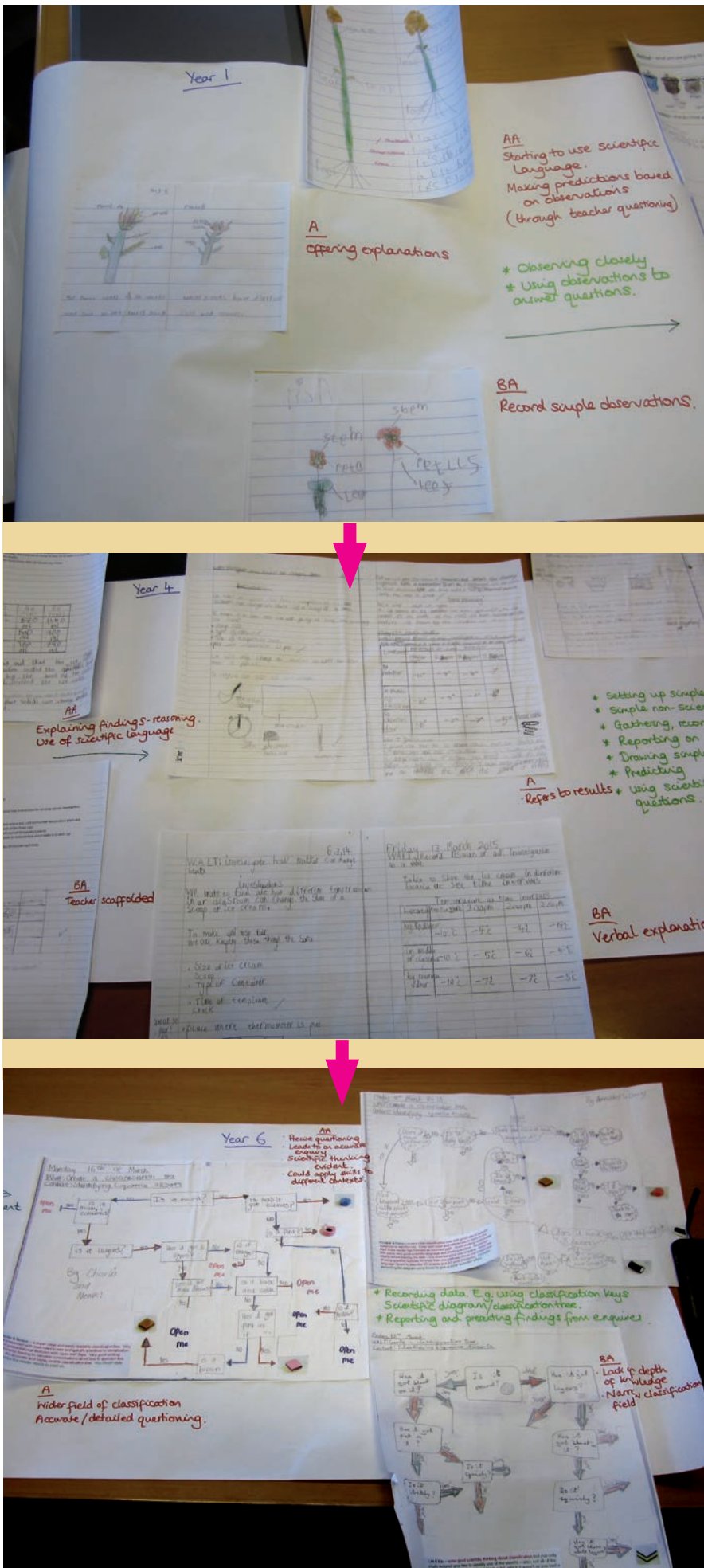


Figure 2 Moderation graffiti wall (note: arranged vertically here to maximise size) – see *Websites* for a video link for further explanation (Kate Porter, Worlebury St Paul's Primary, Weston-super-Mare)

the exact area of difficulty is not clear. For example, staff could be struggling with enquiry types (everything is not a fair test), understanding progression, or selecting a focus for teaching and recording. One way to diagnose the issues particular to your school could be to create a 'graffiti wall', a roll of wallpaper onto which pupil work from across the school is placed in year group order (Figure 2). By inviting staff to look along the roll, questions can then be discussed: What skills can we see developing? Is there progression? Do the children become more independent? Where is the 'working scientifically'?

Some schools have chosen to lay out classwork in this way to help plan their next steps, for example, when working towards the Primary Science Quality Mark (see *Websites*). Others have chosen to do a whole-school science enquiry or TAPS focused task, to consider progression in a particular area, with all classes recording the same part of the investigation for comparison. Such recording would be age appropriate, for example using group floor-books with younger children, which could provide another avenue for discussion regarding methods for focused recording.

**Moderation for understanding**

The ordering of pupil work, a form of comparative judgement, has huge potential for professional learning as it can provoke discussions that can develop both subject knowledge and understanding of curricular assessment criteria. One way of doing this is to take a range of pupil outcomes from an open task and put them in order from least developed ideas to most developed ideas. In the example in Figure 1 children were asked to explore 'rocket mice' (paper mouse on top of an empty plastic bottle; whack the bottle and the mouse flies). This class tried with different-size bottles in groups of three to see which would make the mouse go the highest, and then as a class they tested different bottles at a 45° angle to create a 'floor

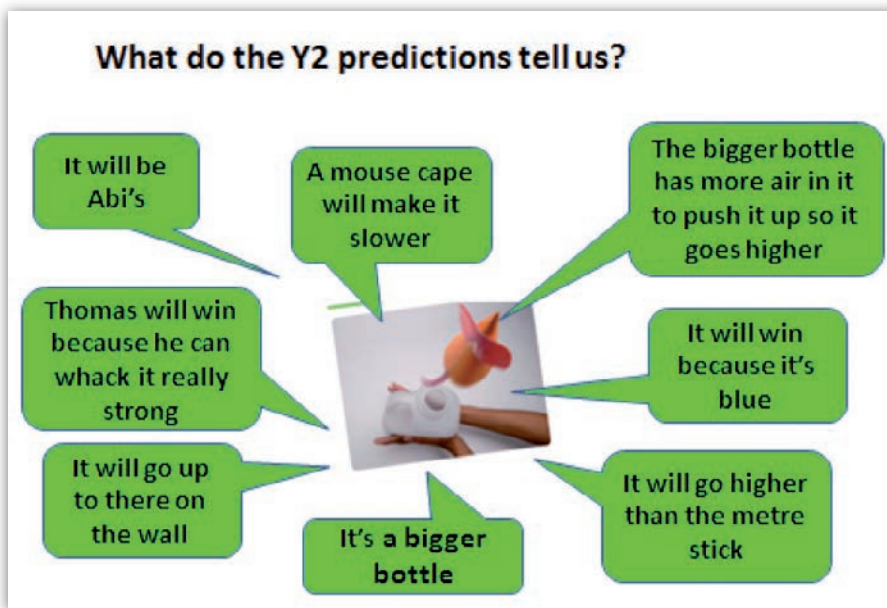


Figure 3 Rocket mice predictions (Victoria Park Primary, Bristol)

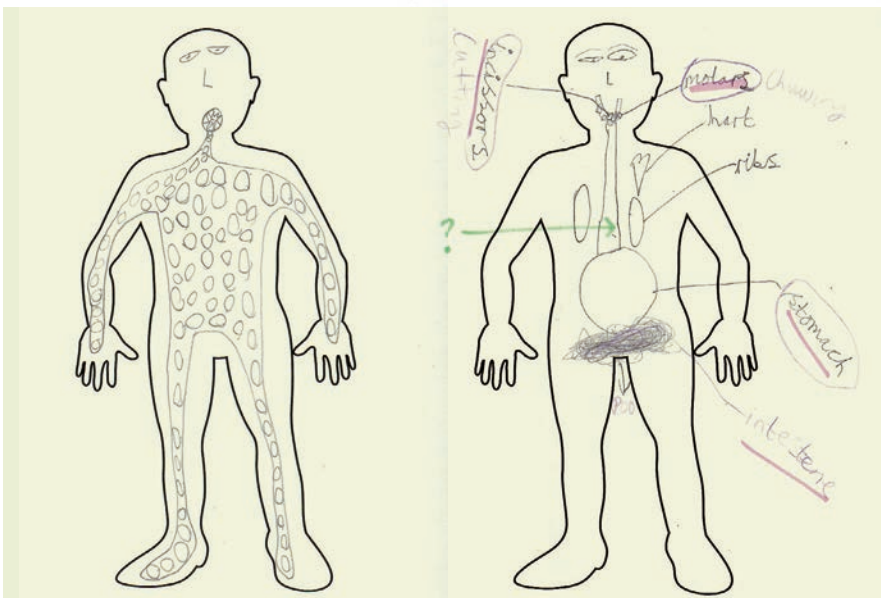
graph'. Children were asked to predict and explain on sticky notes at different times during the lesson and a teaching assistant also scribed some responses in whole-class discussions (Figure 3). These sticky notes have been used for many CPD sessions and they provide an easy

'way in' for discussing what it looks like to make progress in 'working scientifically'.

**Moderation for progress**

A third method of comparison can provoke discussion of progress by using pupil outcomes from the beginning and the end of a topic. For example, some children were asked at the beginning of the term to draw what happened to their lunch.

Figure 4 Pre- and post-unit digestion drawings (Alison Trew, St Mary's Primary School, Devon)



Then they were asked again at the end of term, after having explored and modelled the digestive system (Figure 4). Discussion of the pupil work can support subject knowledge development, for example as teachers identify internal organs and digestive processes that are missing from the early diagrams. Teachers are also able to identify what progress has been made across the class, and information that could be passed onto the next teacher regarding pupil next steps.

**In summary**

The aim of this article was to propose the use of moderation as a method for professional learning, rather than merely a narrow checking system. In order to develop assessment in primary science there need to be open discussions that build a shared understanding across the profession; collaborative ordering of pupil work is one way to do this. Importantly, such moderation discussions are flexible. For example, there could be an informal book-look between year group partners, a whole-school staff meeting or cross-phase or cluster meetings. Use of moderation can lead to development of formative assessment, for example considering different ways to elicit pupil ideas or deciding individual pupil next steps. Comparing pupil outcomes to curricular criteria can develop subject knowledge, together with confidence and consistency in summative assessment. The TAPS project aims to provide examples of such moderation activities, which can be adapted for different contexts in order to support professional learning for valid, reliable and manageable teacher assessment.

**References**

Earle, S., Davies, D., McMahon, K., Collier, C., Howe, A. and Digby, R. (2015) TAPS pyramid interactive pdf. Bristol: Primary Science Teaching Trust.  
 Harlen, W. (2007) *Assessment of learning*. London: Sage.

**Websites**

- Primary Science Quality Mark: <http://www.psqm.org.uk>
- TAPS resources freely available at: <https://pstt.org.uk/resources/curriculum-materials/assessment>
- Moderating science by graffiti wall video: <http://tinyurl.com/TAPSWorlebury>



**Sarah Earle** is TAPS project lead and Senior Lecturer at Bath Spa Institute for Education.  
 Email: [s.earle@bathspa.ac.uk](mailto:s.earle@bathspa.ac.uk)

