TAPS Plan for Focused Assessment of Science

Topic: Evolution (OR Forces)	Year 6 Age 10-11	Title: Egg strength

Working Scientifically

Review: Explain degree of trust in results

Concept Context

Identify how animals are adapted to suit their environment in different ways

Assessment Focus

- Can the children explain how they are testing the strength of the eggs?
- Can the children consider the trustworthiness of their method/results?

Activity *Today we are going to be naturalists*

Why does a hen sit on her eggs? Why do they not break?
We know eggs can be fragile, but they are also strong.
What would be a scientific way of finding out how strong a chicken's egg is?
Children (in groups) set up a suitable test to measure strength and consider accuracy of measurements. Access to a range of weights/books, newton meters, lids, clingfilm (to protect books), card/toilet roll (to make egg stand), plasticine, egg per group to test to destruction. Compare the results from different groups and discuss the degree of trust in different methods.

Adapting the activity

P6

Support: Ask children to take on a specific role in the group. Ask them to explain what they are doing and why. Support through questioning as necessary.
Extension: Children raise further questions they wish to investigate and identify how these might be tested. E.g. Which is the strongest type of egg?
Other ideas: Link with Maths lesson on averages and/or graphs.

Questions to support discussion

- Which do you think is the best position to test?
- How will the egg be held in place? (cushioning? – what difference could this make?)
- What will you 'measure': weights/ newtons/marbles/books etc.?
- How will the weight be added (increments / position) and recorded?
- How much confidence do you have in your results? Do you think you would get the same results again?
- How does your group's data compare to the class results?

Assessment Indicators

Not yet met: Understands the need to be 'fair' / 'same' across all eggs. When prompted, can look for possible problems with the test (holding egg differently, putting weights on with different force).

Meeting: Can identify a range of factors that need to be consistent, e.g. egg position, how weight applied, how egg held in place, etc. Can consider which variables were hard to control and offers suggestions for improving the test.

Possible ways of going further: Can anticipate potential problems, evaluates throughout the process and makes adjustment – but mindful that changes could affect the consistency of results. Problem solves, *e.g. We ran out of actual weight so used substitutes and weighed them on scales.*

P6 Pupil box 6 - identify next steps. See TAPS pyramid for more examples.