



TAPS Plan for Focused Assessment of Science

Topic:	Year 1	Title: Ways to test
Materials/light	Age 5-6	transparency

Working Scientifically

Recognise that sorting questions can be answered in different ways



Concept context

Describe properties of materials

Assessment Focus

- Can children test whether materials are opaque or transparent?
- Can children compare materials on the basis of their transparency?
- Can children discuss different ways to test transparency?

Activity

Explore a range of materials e.g. foil, shiny fabric, glossy acetate, shiny paper, brightly coloured paper, netting... list words to describe their properties on a whiteboard (e.g. shiny/dull, transparent/opaque & translucent). Explain that a material is transparent if we can see details through it and opaque if we cannot see anything at all. Ask children to look through a translucent material (e.g. bubble wrap) and explain that this is translucent because we can see light but not details.

Discuss how to test which are the most transparent, e.g. look through the material at a window or at a lamp, or shine torchlight through or take a photo through it. What can you see?

Groups test and sort a range of materials (could be for a purpose, e.g. to find the best material for making a windscreen for a car). Children return to sit in a circle and consider one group's sorting / ordering – do you agree? Would you move any? Why? Adult collect children's ideas or ask target children or those who have not worked with an adult.

Adapting the activity

Support: Provide sorting hoops or strips of paper labelled transparent / opaque. Adult to prompt children to describe and explain what they are doing.

Extension: Can you test in a different way? Where would you put this tricky one? e.g. coloured acetate (shiny and translucent).

Other: Could test whether shiny, magnetic, bendy.

Questions to support discussion

- How could you test it?
- Which is the most / least transparent? How do you know?
- What other words could you use to describe the materials?
- Does everyone in your group agree? Can you explain to the others why you have put that material there?
- Can you tell me another way to test this object?

Assessment Indicators

Not yet met: Can sort materials into two groups but not clear or gives a reason for the sorting that doesn't link to transparency. May not use a single criterion to sort: "these are colourful, these are shiny". May confuse transparency with other properties e.g. reflection or bright colours.

Meeting: Describe how they sorted the materials according to how transparent they are, and how other groups used different ways to sort the materials.

Possible ways of going further: Able to order the materials from most to least transparent and explain how the test helped them decide on this sequence. Can comment on effectiveness of different ways to test or compare the objects.



Pupil box 4 - assess peers. See TAPS pyramid for more examples.