

SNAPSHOT 5.5: An example of a science lesson plan**Lesson title:** Building materials**Subject:** Science**Year level:** 2**Duration:** 45 minutes**Learning intentions:**

Students will be able to identify different materials and explain their properties

Resources for students:

- Three objects of different weight, such as a tissue (straw), a plastic Duplo block (stick) and a container of playdough (brick)
- Hairdryer and students' breath (wind)

Resources for teachers:

- *Three Little Pigs* storybook
- Predict–Observe sheets

Phase/Time allocation**Teacher direction/activity/instruction:****Introduction**

10 minutes

- Read the *Three Little Pigs*
- Ask questions about the materials used to build each house: What did the pigs use to build their houses? Why do you think the first two houses blew away? Which house was most stable? Why?
- Ask students to list the properties of each material (straw, sticks, bricks) and suggest why they were suitable for building or not. What are the properties of the materials that did not work? What about the materials that did?
- List in a table on the whiteboard three materials. Consider hard/soft, heavy/light, flexible/brittle.

Classroom management

- Sit on floor and listen to story
- Reflect on story, answer questions

Body:

Student inquiry and investigation
25 minutes

- Introduce experiment by posing questions: What other materials might be good for building? How can we find out?
- Hand out three different objects and split class into five groups. Ask students to move to their groups.
- Explain experiment. Ask students to decide on what form of *wind* they will use (hairdryer or their own breath). Model how to use the hairdryer
- Outline group expectations: cooperative work, everyone has a go, discuss results, record on Predict–Observe sheets. Ask students to predict which items would be blown away by the wolf's huffing and puffing. Allow students to hold the items and make comparison. Record predictions on the worksheet.
- Discuss comparative vocabulary, such as light, lighter, lightest or heavy, heavier, heaviest.
- If finished early then ask students to work out how far it moved.
- During experiment, circulate through class monitoring behaviour and eliciting students' understandings by asking questions: What have you noticed about the materials in each category? Why do you think you need to make sure the hairdryer is at the same place each time?
- Can you tell me something about the materials that you think may be good or bad for building? Call class back to whole group scenario?

Conclusion
10 minutes

- Revisit the book and review the materials the wolf was able to blow down and the one that was not.
- Create a table of properties of good building materials on the whiteboard, use questions to elicit responses: What do you notice about all the materials that are good? What do they have in common? Would you say they are hard/soft, heavy/light? Do they move/bend? Did they pass the blow test?
- Use questions to guide discussion about why some materials are suitable for building and others are not: Why do you think this material was/was not suitable? What do you think are the best materials for building/why? If you were going to build a house what would you use? Why?

Formative assessment

- Work sample: Predict–Observe sheets