Which material is best?

This learning sequence supports teachers to facilitate science learning for students who are at home. The resource is developed in a way that acknowledges the different models of home-supported learning that schools are adopting. It acknowledges that parents are supporters of learning led by teacher expertise.

This learning sequence offers flexibility

- Teachers can edit to cater for student literacy levels, and for family resources
- Teachers can use the PowerPoint to
  - facilitate lessons in real-time, or
  - record a voice-over for students to access at a time that suits them, or
  - send the PowerPoint to parents to guide the learning at home.
- Deliver to students by uploading, emailing or print and post

Resources suggested in the unit:
Common household items: Paper, pencils, ruler, carboard, foil, cloths, plastic, water, measuring cup, device for taking photos (optional)
Uncommon household items: various types of gloves

Assessment:

Lesson	Formative assessment embedded in each lesson	Curriculum Links
1	Students examine gloves made for different purposes. They draw and label the gloves, considering the material they are made of and what they are used for.	Lessons 1-5 address: **Year 3** ACSIS053, ACSIS054, ACSIS055, ACSIS057, ACSIS215, ACSIS058, ACSIS060 ACSHE050, ACSHE51 **Year 4** ACSSU074 ACSIS064, ACSIS065, ACSIS066, ACSIS068, ACSIS216, ACSIS069, ACSIS071 ACSHE061, ACSHE062 **General Capabilities** • Literacy • Numeracy • Critical and creative thinking
2	Students complete a fair test investigation about the absorbency of different materials.	
3	Students investigate the strength, elasticity and malleability of different materials.	
4	Students participate in a more in-depth investigation of the elasticity of different materials. Students use formal units to measure distances. They represent their data in a data table and a column graph.	
5	Students make and justify claims about the suitability of different materials for a specific purpose. They examine information about plastic.	

5E model of guided inquiry
This lesson sequence follows the first three phases of the 5E model – **Engage** (Lesson 1), **Explore** (Lessons 2-4), **Explain** (Lesson 5).
Informed by formative assessment of students' work samples, teachers are guided to design and facilitate the next two phases, Elaborate and Evaluate, in the following ways:

Elaborate
Students apply what they have learned about materials and how their properties affect the way they are used e.g.

- Design a conduct a fair test into which materials provide the best insulation.
- Design and create a prototype of a form of packaging that may protect an item during shipping.
- Conduct product tests to determine if the material used is the right material for that purpose.

Evaluate
Students re-represent their understanding of materials and how they are used e.g.

- Explaining how insulation is used to keep things warm and or/cool.
- Evaluating their packaging prototype and suggesting potential improvements.
- Evaluating products tested.