

Preparation

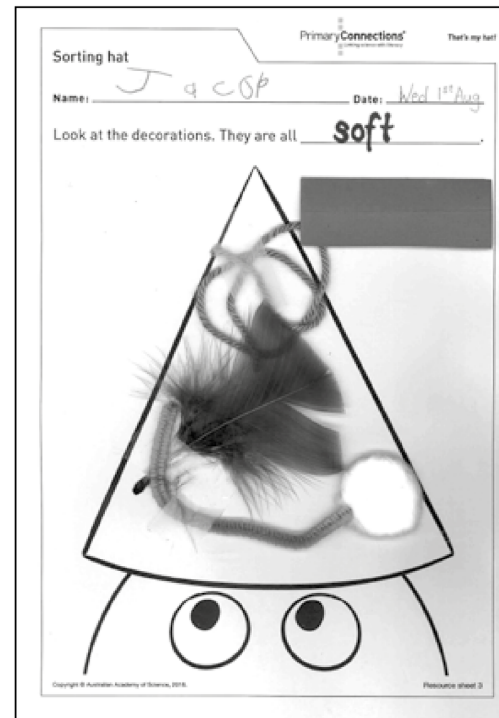
- Print/ copy the task sheet OR
- Create a copy on A4 paper or in a scrapbook

Purpose

- To describe the properties of different materials that objects are made from, using the senses of touch and sight.
- To select and describe decorations for a hat, based on the properties of materials.

Description

1. Support the student to collect objects from around the home and yard that are made from different materials, and might be used to decorate a paper hat.
e.g. paper towel, feathers, bubble wrap, straws, bottle tops, crêpe paper, fabric pieces, yarn, cotton wool, pegs, wrapping paper, cardboard shapes, string, popsticks, foil.
2. Students describe what the objects they have collected look like, and feel like. They identify objects that are similar, and why they think they are similar.
3. Students sort objects they find, using the 'Sorting hat' task sheet, based on the objects' 'properties' - the way they look or feel (e.g. bendy, smooth, fluffy etc).
4. Students explain why they have grouped the objects the way they have.
OPTIONAL: Take a photo or draw each combination of objects, then remove the objects from the hat and repeat for a different property.
5. Students decorate the hat with one of the groups of objects, and explain why e.g. "I have decorated my hat with plastic because it will/won't get too wet in the rain". Encourage students to focus on the properties of the materials to inform their decisions.



EXAMPLE:

A 'Sorting hat' task sheet completed at home.

Before the task

- Read a story about a hat that is decorated e.g. [Jennie's hat by Ezra Jack Keats](https://www.youtube.com/watch?v=F8T8RBmZ2ow), (<https://www.youtube.com/watch?v=F8T8RBmZ2ow>) or [Mrs Honey's hat by Pam Adams](https://www.youtube.com/watch?v=8-J2pAjPrAA) (<https://www.youtube.com/watch?v=8-J2pAjPrAA>).
- Find out what students already know about how objects are made of materials, and that materials have observable properties.
- You might like to ask these questions to guide a discussion:
 - (select an object nearby) What do you think this is made of?
 - Why do you think it is made of that material?
 - How would you describe this object?
 - What do you mean by ____? (asking about their description of the object)
 - Can you think of another object made of the same material?
 - What is the difference between the materials of these two objects? (parent selects two objects from the home). Why do you think they are so different/similar?

After the task

- You may like to re-read the story books (optional).
- Using the completed task sheets, discuss the objects used and why the student chose those objects.
- Discuss why objects might be made out of particular materials.
- Discuss what might happen if an object was made of a different material. Tip: have fun with it! e.g. 'What if all walls were made of glass?', 'What if our roof was made of paper?' etc
- You may wish to share a photo or drawing of the sorting hat and decorated hat with others (classmates, teacher, family members).

Explore some more

- Sort objects into 'natural' and 'processed' materials.
- Identify objects that are made of a combination of materials e.g. scissors are made of metal and plastic.
- Create 'material labels' and attach them to objects made of that material (wood, metal, plastic, fabric, wool, glass etc)
- Engage with these resources about materials and tools <https://education.abc.net.au/home#!/topic/1775629/materials-and-tools>
- Explore materials when making paper planes <https://education.abc.net.au/home#!/media/2238518/exploring-materials-when-paper-plane-making>
- Make a hat: [Four ways to make a newspaper hat](https://www.wikihow.com/Make-a-Newspaper-Hat) (<https://www.wikihow.com/Make-a-Newspaper-Hat>), [Two ways to make a party hat](https://www.wikihow.com/Make-a-Party-Hat) (<https://www.wikihow.com/Make-a-Party-Hat>), [Three ways to make a paper hat](https://www.wikihow.com/Make-a-Paper-Hat) (<https://www.wikihow.com/Make-a-Paper-Hat>)

Sorting hat

Name:

Date:

Look at the decorations. They are all:

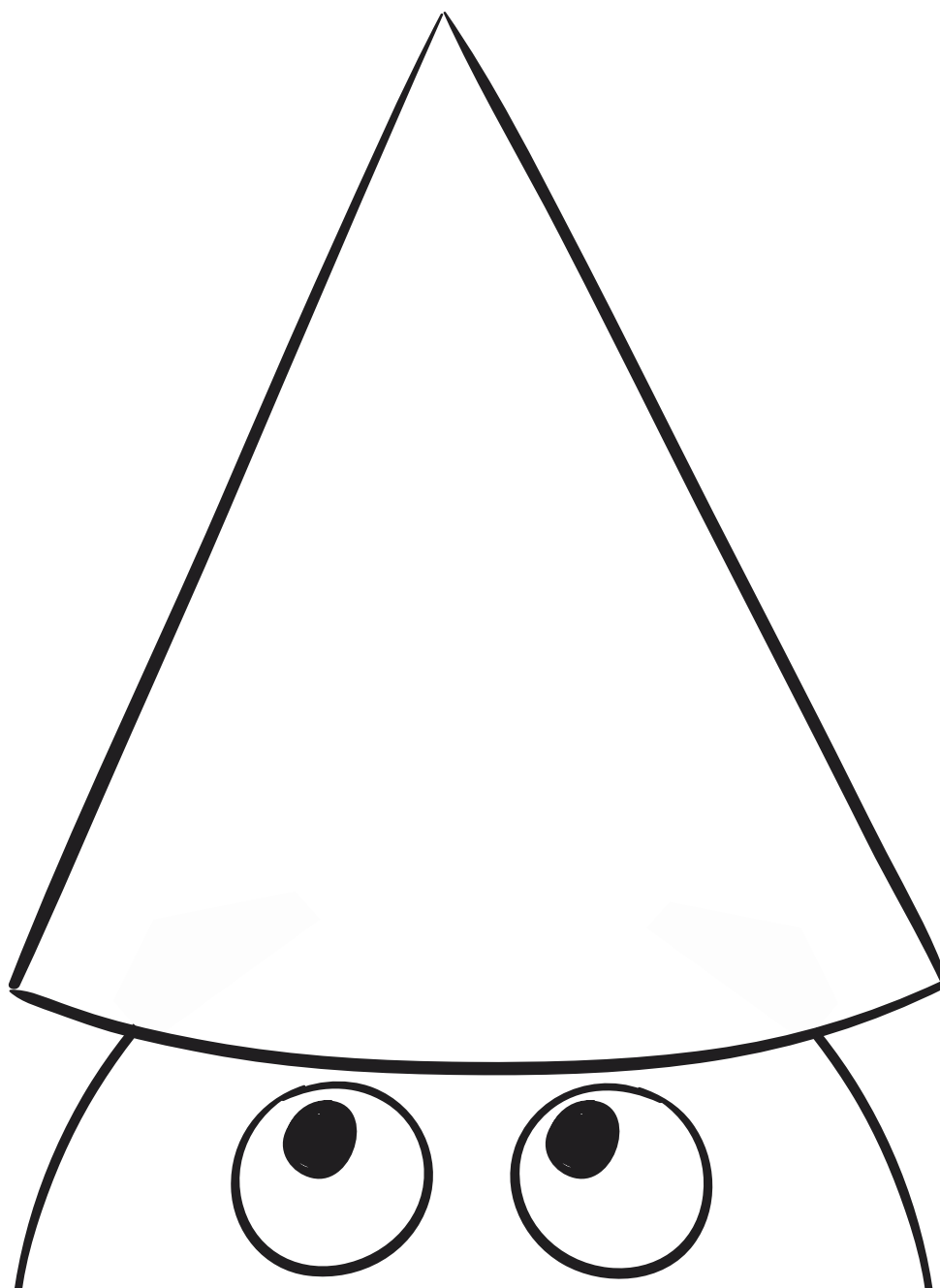


Image © Australian Academy of Science

My hat decoration

Name:

Date:

It is:

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