

# Year 1 Science – Materials

Pupils should be taught to:

Distinguish between an object and the material from which it is made.

Identify and name a variety of everyday materials including wood plastic glass metal water and rock.

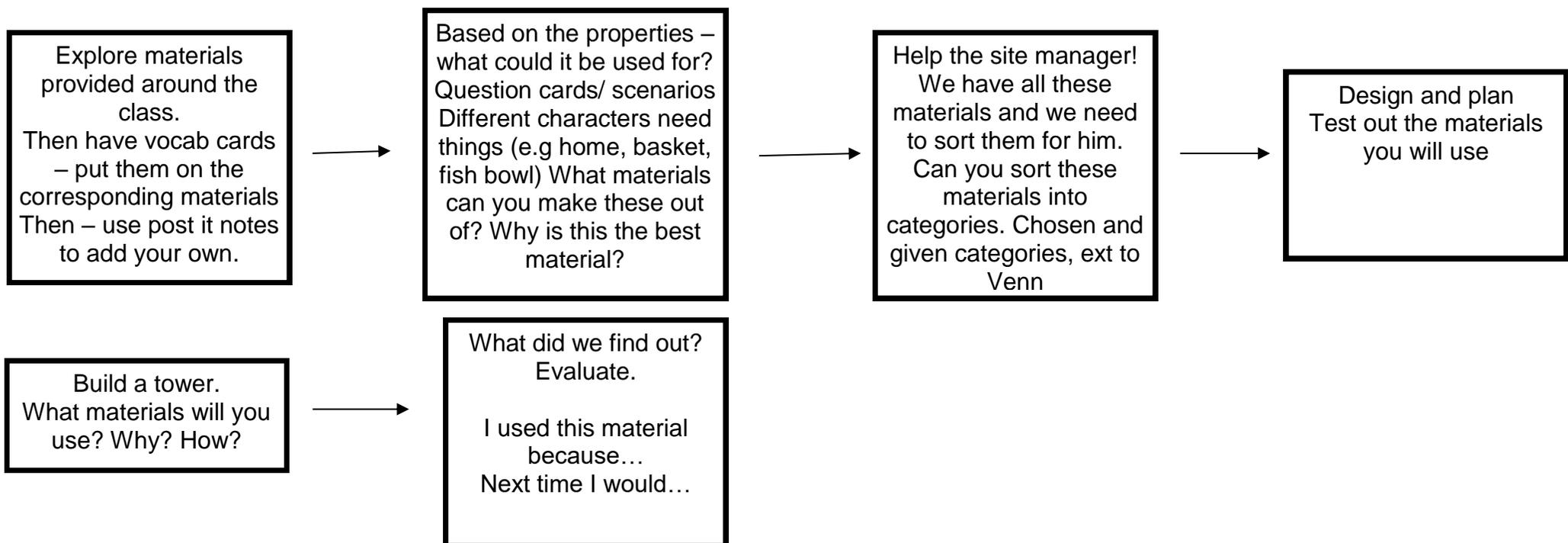
Describe the simple physical properties of a variety of everyday materials

Compare and group together a variety of everyday materials on the basis of their simple physical properties.

## Vocabulary

- Everyday materials
- Hard
- Soft
- Stretchy
- Stiff
- Shiny
- Dull
- Rough
- Smooth
- Bendy/not bendy
- Waterproof/ not waterproof
- Absorbent/ not absorbent
- Opaque / not opaque
- Transparent
- Brick paper fabric elastic foil wood plastic glass metal water rock
- Simple test prediction question results method
- Properties
- float

## Snapshot overview



# Medium Term Planning

Year Group: 1

Term: Spring 1

Topic: Materials

	Learning Objective	Input (including key questions and vocabulary)
Session 1	I can explore and describe a variety of materials and their properties.	<p>Explore materials provided around the classroom.</p> <p>Brick paper fabric elastic foil wood plastic glass metal water rock</p> <p>Can you name the materials? Can you describe the material? What can you do with it? E.g. pull, tear, rip, cut, stretch, bend, fold, twist.</p> <p>Give each group a vocab card e.g strong, soft, bendy, smooth. Can they put them on the corresponding materials?</p> <p>Can they use post it notes to add their own labels to the other materials?</p> <p>Share their ideas. If they choose a child-friendly word, give them the scientific alternative and add these terms to their activity e.g. see-through/transparent.</p> <p>Vocab: properties, materials.</p>

Session 2

I can describe materials and discuss their use.

Different characters need help e.g. Little Red Riding hood's basket is broken! She needs a new one to carry fruit to Grandma. What material should she use? Why? Use scientific language e.g. "because it's strong."

Nemo has had to leave his home, what can he use to make a new one? What material? Why?

You are in bed and it is really bright outside the window. What could you use to make a blind? What material? Why?

Mrs Corbin needs a hairband, what material can she use? Why?

Ensure you are always reminding children of the properties of the materials and why you would/would not choose them for a particular use.

After each question-Think! Is the material you chose the best or only option? Explore the range of materials and see if there is one that has all of the properties you need for the use.

Session 3	<p>I can sort materials based on their properties.</p>	<p>Help the site manager! We have all these materials and real life items and we need to sort them for him because he will be building a new structure in the playground.</p> <p>Partner talk- create a word bank of different properties to use when they are sorting. Encourage the use of this in group work.</p> <p>Activity- children to sort the materials uses their own choice of properties.</p> <p><b>Each group to record their work in books- children to choose how to record their information e.g. table, draw circles/sections, Venn diagram. Children to choose categories to sort them by</b></p> <p>Each group to share their work with the class and explain their results, encourage use of scientific vocabulary- names of materials and properties.</p>
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Session 4	<p>I can design structure thinking about the properties of materials.</p>	<p>Remind children that we are making a structure for the playground.</p> <p>Explore the materials and how suitable they would be for their design.</p> <p><b>In books- Design the structure they would like the site manager to build and its use e.g. to protect children from the rain, toys when we are not using them, animals at night. Label the materials they have chosen. Write a sentence to explain why they have chosen certain materials e.g. I have chosen wood for the base because it is strong and will hold up the water proof plastic.</b></p>
Session 5	<p>I can build a structure using appropriate materials.</p>	<p>Recap previous lesson and discuss the structures they created. Remind children they are making these in this lesson.</p> <p>Children to build the structure they designed in the previous lesson. How are you going to use the materials to build?</p> <p>Provide all materials they have been using in previous lessons and tape, glue, hole punch, treasury tag, staplers, blu tac, string, elastic bands and split pins.</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Session 6</p>	<p>I can evaluate my structure.</p>	<p style="text-align: center;">What did we find out? Evaluate.</p> <p>Photograph of the structure in books. Children to evaluate their choice of materials, what went well and what could be improved. Partner talk to encourage ideas. Teacher to model evaluating their own structure.</p> <p>Give children the following sentence starters as examples. I used this material because... Next time I would...</p> <p>Refer to key words from working wall.</p> <p>Plenary – What have we found out about materials?</p>
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### **Impact**

- Every child will be able to name materials and be able to explain their properties.
- Every child will be able to talk about similarities and differences between materials.
- Every child will be able to classify and sort materials based on their properties.
- Every child will say what an object is made out of and explain the material choice.