

Materials- Year 2- Kapow unit: Uses of everyday materials

Previous learning

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 everyday materials.

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

Key Vocabulary for Year 2

Hard	Waterproof
Soft	Absorbent
Stretchy	Opaque
Stiff	Transparent
Shiny	Brick
Dull	Paper
Rough	Fabric
Smooth	Squashing
Bendy	Bending
Twisting	Foil

Previous vocabulary

Wood, plastic, glass, paper, water, metal, rock, hard, soft, bendy, rough and smooth.

Useful links

- <https://www.stem.org.uk/resources/community/collecion/12724/year-2-uses-everyday-materials>
- https://www.outstandingscience.co.uk/index.php?action=view_page&page=view_unit&unit=2d
- <https://www.hamilton-trust.org.uk/science/year-2-science/everyday-materials-materials-matter/>
- <https://www.saveteacherssundays.com/uploads/Y ear+2+Uses+of+Everyday+Materials+planning.pdf>

Key scientists you could look at...

John McAdam- constructed roads

Scientific skills

Working scientifically	Questioning and enquiry	Observing and measuring	Investigating	Recording	Grouping and classifying
To use practical scientific methods, processes and skills with increasing confidence	Ask questions about the world around us	Observe closely, using simple equipment Use observations and ideas to suggest answers to questions	perform simple tests. To discuss my ideas about how to find things out To say what happened in my investigation	Gather and record data to help in answering questions. Record simple data Record and communicate their findings in a range of ways Can show my results in a table that my teacher has provided.	Identify and classify Observe and identify, compare and describe

Experiment and activity ideas

Make a mirror	Make a waterproof coat	What is the best material for building...?	Feely bag- describe properties of materials	How can we change the shape of a solid?
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Knowledge- objectives

Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Resources in school

Variety of every day materials, feely bags

Properties of Materials

wood: hard, stiff, strong, opaque, can be carved into any shape.	glass: waterproof, transparent, hard, smooth.	Squash an object by pushing both hands together.	Bend an object by grabbing both ends of the object and bringing the ends inwards together.
plastic: waterproof, strong, can be made to be flexible or stiff, smooth or rough.	metal: strong, hard, easy to wash.	Twist an object by turning your hands in opposite directions.	Stretch an object by pulling your hands slowly and gently apart.
paper: lightweight, flexible.	cardboard: strong, light, stiff.		
fabric: soft, flexible, hard-wearing, can be stretchy, warm, absorbent.	rubber: hard-wearing, elastic, flexible, strong.		

John McAdam's process was so successful that roads were built in this way right across the world.

John Dunlop originally used rubber to make tires for his son's tricycle.

Charles Macintosh invented the first waterproof fabric by painting a dissolved rubber solution onto cloth.