

Year 1 - Science: Everyday materials

Key vocabulary: object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through/transparent, not see-through/opaque.

*Most of the worksheets are differentiated. The 1-star sheets are the easiest and the 3-star sheets are the most challenging – ask your child how confident they feel before choosing a sheet for them; most children should be able to complete the 2-star sheet (the answers are mostly provided). The **Knowledge Organiser** gives an overview of the learning for the whole unit.*

<u>Learning goal:</u>	<u>Key information & Activities:</u>	<u>Resources:</u>
I can identify and name different everyday materials, including wood, plastic, glass, metal, water, and rock.	Watch the PowerPoint (and video clip about rocks). <ul style="list-style-type: none"> Materials can be fabrics, building materials, pencils, rocks, water, etc. Materials are not just fabrics or textiles. They include any substance: different liquids (not just water), natural and man-made products. Complete the labelling materials worksheet.	<ul style="list-style-type: none"> Naming materials PowerPoint Rocks – video clip https://www.bbc.co.uk/bitesize/clips/zybvr82 Items from around the house/garden made of: glass, plastic, metal, wood, water, rock Labelling materials activity sheet
I can tell the difference between an object and the materials it is made from.	Gather a selection of items (see resource list). Watch the PowerPoint (and video clip). <ul style="list-style-type: none"> All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons. Complete the Objects and Materials sorting worksheet. <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. Discuss the Odd One Out activity (on the PowerPoint).	<ul style="list-style-type: none"> Scissors, window, table, rock, tin can, Lego, chair, teddy, wood, glass Objects and materials PowerPoint Materials and their properties – video clip https://www.bbc.co.uk/bitesize/clips/z7qd7ty Objects and materials sorting worksheet
I can describe the properties of everyday materials.	Watch the PowerPoint. Use the vocabulary mat. <ul style="list-style-type: none"> Materials can be described by their simple physical properties e.g. shiny, stretchy, rough etc. Using the vocabulary cards provided, go on a scavenger hunt around your house – find a material in your house/garden that has the property on the vocabulary card. <ul style="list-style-type: none"> Some materials e.g. plastic can be in different forms with very different properties. Complete the Description of properties worksheet.	<ul style="list-style-type: none"> Properties PowerPoint Vocabulary mat - materials Scientific vocabulary cards for scavenger hunt (if you don't know what a scavenger hunt is: https://en.wikipedia.org/wiki/Scavenger_hunt) Description of properties worksheet
I can identify which materials have certain properties.	Watch the PowerPoint. Use the vocabulary mat from lesson 3: bendy, not bendy, waterproof, not waterproof, transparent, opaque, absorbent, not absorbent.	<ul style="list-style-type: none"> Testing properties PowerPoint Property testing sheet Plastic straw, spoon, table, tape measure, elastic band Wellies, t-shirt, paper, rubber gloves

	<ul style="list-style-type: none"> To find out which properties a material has, you sometimes have to complete a few tests to see how it behaves. <p>Complete the Property Testing sheet (<i>use items from the resource list – everyday household items</i>).</p> <p>Tell a family member what you did, what you found out, what surprised you and why it surprised you</p>	<ul style="list-style-type: none"> Window, cardboard box, plastic bottle, tin can Notebook, sock, towel, paper
I can test different materials. I can use what I have learnt to make a decision.	<p>Watch the PowerPoint and try the interactive BBC activity.</p> <p>Gather your 4 materials and resources required. [If you don't have a pipette, a syringe could work or a ½ teaspoon measuring spoon.]</p> <p>Complete the Umbrella Investigation worksheet as you test your materials on Ted.</p> <p>Decide which material would make the best umbrella for Ted. Why?</p>	<ul style="list-style-type: none"> Umbrella investigation PowerPoint Which material do we use? – BBC Bitesize interactive activity https://www.bbc.co.uk/bitesize/topics/zrsgk7/articles/z9pgcdm Small bear, plastic pot, elastic band, pipette, water, 4 different materials Umbrella investigation worksheet
I can sort objects by their properties.	<p>Watch the PowerPoint (and video clip).</p> <p>Discuss with a member of your household (or a friend/family member over video chat) how you can sort the objects into 2 groups.</p> <p>Using a range of objects from around your home, sort your items using the Venn diagrams/sorting circles (<i>2 overlapping plastic hula hoops?</i>) into <u>rough and/or smooth</u> objects.</p> <ul style="list-style-type: none"> Any items which are <u>both</u> rough and smooth go into the <u>overlapping section</u>. <p>Using the material sorting cards, sort the cards (with objects on) into the different materials they are made from: wood, metal, glass, plastic.</p> <p>Repeat with the transparent/opaque cards and the waterproof/not waterproof cards.</p>	<ul style="list-style-type: none"> Sorting objects PowerPoint What materials are different objects made from? – video clip https://www.bbc.co.uk/bitesize/clips/zf7jmp3 Range of items from around the home 2 plastic hula hoops Sorting cards: materials, waterproof, transparent/opaque