

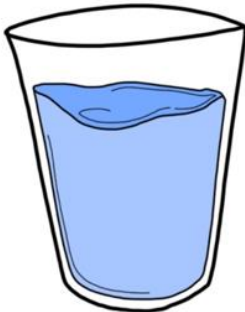
Science: Term 3 & 4

Working Towards: I can explore materials and notice differences.

Expected: I can identify common materials and describe simple properties.

Greater Depth: I can compare materials and suggest why they are suitable for certain uses.

GLASS



METAL



PLASTIC



WOOD



**W
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k
1**

What is a Material?

1. What do you think this object is made of?
2. Can you find something made of the same material?
3. Why do we use different materials for different objects?

Resources: Mystery bag, classroom objects.

Differentiation: Provide labels for children to match; pair children to help each other.

Hook: Show a mystery bag with objects of different materials. Ask children to guess what they are made of.

Teacher Input: Explain that materials make objects and have properties. Introduce wood, metal, plastic, fabric, glass.

Activity: Children explore objects around the classroom and group them by material.

	Recording: Draw the objects and label materials with help.		
W E E K 2	Properties of Materials – Hard or Soft <ol style="list-style-type: none"> 1. Which objects are hard and which are soft? 2. Why do you think some objects need to be hard? 3. Can something be soft but still useful? How? 	Resources: Variety of classroom objects (sponge, wooden block, toy car).	Differentiation: Adults support categorization or children can use stickers instead of writing.
	<p>Hook: Ask children to squeeze and tap objects: “Which are hard? Which are soft?”</p> <p>Teacher Input: Introduce hardness and softness.</p> <p>Activity: Children sort objects into “hard” or “soft” categories.</p> <p>Recording: Draw or tick items under “hard” and “soft.”</p>		
W E E K 3	Waterproof or Not <ol style="list-style-type: none"> 1. Which materials let water through and which don’t? 2. Why do some things need to be waterproof? 3. How can we test if something is waterproof? 	Resources: Small containers, water, various materials (plastic, paper, fabric).	Differentiation: Children can draw or use tick/cross cards.
	<p>Hook: Ask, “Which of these materials can keep water out?”</p> <p>Teacher Input: Introduce waterproof vs non-waterproof materials.</p> <p>Activity: Children test small objects/materials by sprinkling water and observing.</p> <p>Recording: Draw a picture of what happens: “stays dry” or “gets wet.”</p>		

W E E k 4	Flexible or Rigid <ol style="list-style-type: none"> 1. Which materials bend easily and which don't? 2. Why might we need a material that is flexible? 3. Can a material be flexible in one direction but hard in another? 	Resources: Paper, sticks, rubber bands, plastic rulers.	Differentiation: Children can choose 1 or 2 examples to focus on rather than all items.
<p>Hook: Show a flexible ruler and a wooden stick; ask, "Which bends?"</p> <p>Teacher Input: Explain flexibility vs rigidity.</p> <p>Activity: Children explore bending materials (paper, rubber, sticks).</p> <p>Recording: Draw objects bending or staying straight.</p>			
W E E k 5	Suitability for Purpose <ol style="list-style-type: none"> 1. Which material would be best for making an umbrella, gloves, or a boat? 2. Why do some materials work better for certain jobs than others? 3. How can we decide which material to choose for a purpose? 	Resources: Pictures or objects for matching, sorting mats.	Differentiation: Pre-made picture cards for matching; peer support for writing.
<p>Hook: Show a toy boat and ask, "What material would you use to make it float?"</p> <p>Teacher Input: Discuss why some materials are better for certain purposes (water, warm, building).</p> <p>Activity: Children match objects to a purpose (umbrella → waterproof, gloves → warm).</p> <p>Recording: Draw objects in the correct "purpose" column.</p>			

W E E k 6	Investigating Materials <ol style="list-style-type: none"> 1. Which material is your favourite and why? 2. Can you find a material that is good at more than one thing? 3. How does testing different materials help us choose the best one? 	Resources: Variety of classroom objects and materials, paper, crayons.	Differentiation: Children can draw independently or adults scribe for them.
	Hook: Set up a materials “discovery table.” Children explore freely.		
	Teacher Input: Recap properties and encourage questions: “Which material is best for...?” Activity: Hands-on exploration and discussion, trying out previous experiments (waterproof, bend, hard/soft). Recording: Draw their favorite material and explain why with adult support.		
Working Towards: I can explore light and notice patterns. Expected: I can describe how light behaves and how shadows are formed. Greater Depth: I can explain how light travels, reflects, and refracts, and can predict outcomes of experiments.			

LIGHT SOURCES

NATURAL LIGHT SOURCES



FIRE

FIRE

ARTIFICIAL LIGHT SOURCES



LAMP

CANDLE

W
E
E
k
7

What is Light?

1. What objects can give us light?
2. How does light help us see things?
3. What happens if we shine light on different surfaces?

Resources: Torches, objects of different colors/textures, paper.

Differentiation: Support children by labeling objects or having them trace shadows.

Hook: Sit in the sensory room with the light off and shine a torch to reveal objects. Ask, "Where does the light go?"

Teacher Input: Introduce light as a form of energy. Explain sources: natural (sun) and artificial (lamps, torches).

Activity: Children explore light with torches around the classroom; shine light on different objects and surfaces.

Recording: sort natural sources of light from man made sources of light.

W E E k 8	Reflection <ol style="list-style-type: none"> 1. What do you notice when light hits a mirror? 2. How does the angle of the mirror change where the light goes? 3. Can we make light bounce to hit a target? How? 	Resources: Small mirrors, torches, masking tape for targets.	Differentiation: Support with drawing straight arrows for light paths, or have paired work.
<p>Hook: Use a mirror to bounce light to a target on the wall.</p> <p>Teacher Input: Explain reflection and “angle of incidence = angle of reflection.”</p> <p>Activity: Children use mirrors to bounce a torch light onto a target or around obstacles.</p> <p>Recording: Draw the path of the light or use stickers to mark the target spots.</p>			
W E E K 9	Refraction <ol style="list-style-type: none"> 1. Why does the pencil look bent in water? 2. Does the light bend more in some liquids than others? 3. How can we change the way the straw or pencil looks? 	Resources: Glasses of water, straws/pencils, food coloring.	Differentiation: Support with labeling “bent” and “straight,” or trace with colored pencils.
<p>Hook: Place a pencil in a glass of water and ask, “Why does it look bent?”</p> <p>Teacher Input: Introduce refraction, explain how light bends in water or other materials.</p> <p>Activity: Children place straws/pencils in water, observe bending from different angles, try clear vs. colored liquids.</p> <p>Recording: Draw the straw/pencil before and after placing in water.</p>			

W E E k 10	Shadows <ol style="list-style-type: none"> 1. What happens when we put something in front of the light? 2. How can we make shadows bigger or smaller? 3. Why do some objects make darker shadows than others? 	Resources: Torches, opaque and transparent objects, white walls/sheets.	Differentiation: Allow tracing of shadows or guided drawings.
<p>Hook: Use a torch in a dark corner to make shadows on the wall.</p> <p>Teacher Input: Discuss how shadows form when light is blocked. Introduce terms: opaque, transparent, translucent.</p> <p>Activity: Children make shadows using hands, toys, and paper cut-outs. Try changing distance to make shadows bigger or smaller.</p> <p>Recording: Draw shadow shapes and size changes.</p>			
W E E k 11	Changing Shadows and Angles <ol style="list-style-type: none"> 1. How does moving the light closer or further change the shadow? 2. What happens if we change the angle of the light? 3. Can we make the shadow look longer, shorter, or taller? How? 	Resources: Torches, paper cut-outs, toys.	Differentiation: Adults or peers can help children record their results; some children can photograph shadows instead of drawing.
<p>Hook: Show a shadow puppet and move the torch to change size.</p> <p>Teacher Input: Discuss how the angle and distance of light changes shadow size and shape.</p> <p>Activity: Children experiment with moving torches closer/further, tilting them to make shadows change.</p> <p>Recording: Draw at least 2 different shadow sizes for one object.</p>			

W E E k 12	Investigating Materials and Light <ol style="list-style-type: none"> 1. Which materials let light through and which don't? 2. How does the type of material affect shadows and reflections? 3. Why might some materials be better for certain things, like windows or lampshades? 	Resources: Materials (plastic, fabric, paper, glass), torches.	Differentiation: Use matching cards for non-writers; provide a checklist for independent children.
<p>Hook: Shine a torch through different materials: glass, paper, fabric, plastic.</p> <p>Teacher Input: Explain opaque, transparent, translucent. Discuss reflection, refraction, and shadow formation.</p> <p>Activity: Children test various classroom materials to see what happens to light.</p> <p>Recording: Draw or match objects to labels: transparent, translucent, opaque.</p>			