



Science – Everyday Materials

Term 2	Learning Question & NC Link	Substantive Knowledge To know that...	Disciplinary Knowledge I can...	Vocabulary	Assessment opportunity	Equipment & resources	Lesson ideas
Session 1 Observing	What are everyday materials?	To know the names of a variety of everyday materials (wood, plastic, glass, rock).	To identify a variety of everyday objects.	Material - The 'stuff' an object is made out of Types of materials: wood, plastic, glass, metal, water, rock, brick, fabric, sand, paper, flour, butter, milk, soil	Adult to record child responses on post-its. Assess against key assessment questions.	Everyday/ classroom objects	Challenge the children - how many different materials can they find – have clipboards and a recording sheet. You could go around the class or school grounds.
Session 2 Asking simple questions and recognising they can be answered in different ways	What is the difference between an object and what it is made from?	To know the difference between an object and the material from which it is made. To know what the word material means. (All objects have a name like 'a door'. Material is the 'stuff' an object is made from)	To identify a variety of everyday objects and what it is made from. To say e.g. 'this is a door and it is made from wood'.	Material - The 'stuff' an object is made out of Types of materials: wood, plastic, glass, metal, water, rock, brick, fabric, sand, paper, flour, butter, milk, soil Object - A thing that can be seen and touched	Adult to record child responses on post-its. Assess against key assessment questions.	Interesting objects Variety of paper Question stems	Play 'Kim's game' – Hold up each object at a time and state what it is and what it is made from. Take an object away and the children have to say what object is missing and what it is made from. Explain that scientists working in laboratories must come up with questions that they can find the answers to. Hold up an interesting object – What questions can we ask about it? E.g. What is it? What is it made from? Is it? Why does it have.....? Provide question stems as a scaffold. Draw classroom objects and record what it is and what it is made from.
Session 3 Identify and classify	How can materials be grouped or classified?	To know that you can put materials into different groups by answering questions about the material. To know how to compare and group together a variety of everyday materials	To classify everyday materials.	Material - The 'stuff' an object is made out of Types of materials: wood, plastic, glass, metal, water, rock, brick, fabric, sand, paper, flour, butter, milk, soil Object - A thing that can be seen and touched Sort, classify, group, compare.	Adult to record child responses on post-its. Assess against key assessment questions.	Sorting circles Classroom objects	Sort a variety of everyday objects. Place material headings into sorting circles, e.g. metal, plastic, fabric, wood, etc and sort a selection of objects. Take a photograph of the sorting activity and add children's responses to how they have been sorted/grouped together and why.
Session 4 Gather and record data to help in answering questions	What are different properties of materials?	To know how to describe the simple physical properties of a variety of everyday materials.	To identify and describe the simple physical properties of a variety of everyday materials using their senses.	Properties - A way to describe something Properties of materials: hard/soft, stretchy/not stretchy, shiny/dull, Hard - Not easily broken Soft - Easy to cut, fold or change shape Stretchy - Can be made longer or wider without breaking Stiff - Doesn't change shape easily Shiny - Reflects light easily Dull - Not very bright or shiny Rough - Has an uneven surface Smooth - An even surface with n lumps or bumps Bendy - Can be bent easily Not bendy - Can't be bent easily Waterproof - Keeps out water Not waterproof - Lets water in Transparent - Able to see through it easily Opaque - Not able to see through Magnetic/non-magnetic	Adult to record child responses on post-its. Assess against key assessment questions.	Sorting hoops Variety of everyday objects	How can we describe materials? Talk to the children about how we sense the world around us. (Recap what our 5 senses are from term 2 knowledge) Touch challenge – Describing objects using the sense of touch. How does it feel? What does it feel like? E.g. rough/smooth, hard/soft, sharp/blunt (see vocab). Play 'I spy' – I spy something that is smooth and transparent. Place a selection of objects into a sorting hoop – What is the property? Children can test magnetic and non-magnetic objects or waterproof/non-waterproof.
Session 5 Performing simple tests	How can we test a variety of everyday materials?	To know how to carry out a simple test. To know how to use simple equipment.	To ask simple questions and recognise that they can be answered in different ways. To be able to observe carefully, using simple equipment. To perform simple tests.	Liquid - Liquids can flow or be poured easily Absorbent - Soaks up liquid easily Not absorbent - Doesn't soak up water easily	Adult to record child responses on post-its. Assess against key assessment questions.	Variety of paper Question stems	Provide the children with different types of paper. Ask the children to generate questions about the properties of paper. Provide question stems as scaffold. E.g. Does paper? Which paper is best at? I wonder what would happen if.....? Carry out a test for one of the children's questions e.g. Which paper is strongest? Which paper is the most absorbent? Is paper waterproof?
Session 6 Performing simple tests	How can we change food materials?	To know that the object name is different to what it is made from. To know the names of a variety of everyday	To be able to ask simple questions and recognising they can be answered in different ways.	Material - The 'stuff' an object is made out of Types of materials: wood, plastic, glass, metal, water, rock, brick, fabric, sand, paper, flour, butter, milk, soil Object - A thing that can be seen and touched Dissolving	Adult to record child responses on post-its. Assess against key assessment questions.	Jelly Bowl Hot water	Take photos of classroom objects close up. Can the children identify them? Generate questions; what is it? What is it made from? Is it shiny? Is it plastic? Making Jelly – generate questions about what will happen and how the jelly looks e.g. what does it smell like? What does it feel like? Is it soft? Is it squidgy? etc. Describe and allow the children to explore how the jelly

		materials, including wood, plastic, glass, metal, water and rock.		Boiling Heating changes		Science books Lab coat Sign for the door	<p>smells and feels before adding to the water. What happens when we put the jelly into the boiling water? What changes happen? What happens to the water?</p> <p>Focus on the question – How will the jelly change? How can we answer this question e.g. carry out a simple test (make reference to posters on science working wall).</p> <p>Ensure safety measures are in place with boiling water.</p> <p>Record in books their observations of how the jelly changed.</p>
Notes							

Sandwich Infant School