

ADVENT TERM

SCIENCE – Year 1 - Medium Term Planning – CHEMISTRY: EVERYDAY MATERIALS

<u>LESSON 1</u>	<u>LESSON 2</u>	<u>LESSON 3</u>
<p>LEARNING INTENTION: To know that objects are made from different materials.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Develop scientific knowledge and conceptual understanding through the specific disciplines of chemistry.</p>	<p>LEARNING INTENTION: To know that some materials can be natural.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.</p>	<p>LEARNING INTENTION: To know that some materials can be human-made.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.</p>
<p>Key Vocabulary: wood, plastic, glass, metal, card, rubber, fabric, paper, wool, brick, elastic, foil, metal, water, rock</p>	<p>Key Vocabulary: wood, metal, card, rubber, fabric, paper, wool, brick, elastic, foil, metal, water, rock</p>	<p>Key Vocabulary: hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, waterproof, not waterproof, absorbent, not absorbent, opaque, transparent.</p>
<p>Recap & retrieval:</p>	<p>Recall & retrieval:</p> <ul style="list-style-type: none"> Materials are important because we use them to make everyday objects 	<p>Recall & retrieval:</p> <ul style="list-style-type: none"> Materials are important because we use them to make everyday objects. Natural materials come from the world around us, such as the ground, plants and animals.
<p>Key Knowledge:</p> <p>Child:</p> <ul style="list-style-type: none"> Materials are all around us, such as in the home, garden, school and park. Materials are important because we use them to make everyday objects. 	<p>Key Knowledge:</p> <p>Child:</p> <ul style="list-style-type: none"> Natural materials come from the world around us, such as the ground, plants and animals. 	<p>Key Knowledge:</p> <p>Child:</p> <ul style="list-style-type: none"> People make new materials from natural materials. Materials made from natural materials are called human-made materials.

<p>Teacher:</p> <ul style="list-style-type: none">• Examples of materials include glass, wood, fabric, plastic, stone and metal.• They are important because we use materials to make the objects we use every day.	<p>Teacher:</p> <ul style="list-style-type: none">• Natural materials include wood, metal, cotton, wool, leather, stone, rubber, clay, silk, oil, water and sand.	<p>Teacher:</p> <ul style="list-style-type: none">• Examples of human-made materials include glass, paper, plastic, brick, metal alloys, synthetic fabrics and concrete.• Human-made materials look and feel different to the natural materials they are made from.
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<u>LESSON 4</u>	<u>LESSON 5</u>	<u>LESSON 6</u>
<p>LEARNING INTENTION:</p> <p>To know that some objects are transparent and opaque.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Develop scientific knowledge and conceptual understanding through the specific discipline of chemistry.</p>	<p>LEARNING INTENTION:</p> <p>To know that some objects consist of more than one property.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Develop scientific knowledge and conceptual understanding through the specific discipline of chemistry.</p>	<p>LEARNING INTENTION:</p> <p>To know that the scientist Charles Macintosh invented a waterproof fabric.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p>
<p>Key Vocabulary: transparent, opaque, property</p>	<p>Key Vocabulary: hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, waterproof, not waterproof, absorbent, not absorbent, opaque, transparent.</p>	<p>Key Vocabulary: invention, scientist, pioneering, waterproof, fabric, patent</p>
<p>Recall & retrieval:</p> <ul style="list-style-type: none"> • Materials are important because we use them to make everyday objects. • Natural materials come from the world around us, such as the ground, plants and animals. • Materials made from natural materials are called human-made materials. 	<p>Recall & retrieval:</p> <ul style="list-style-type: none"> • Materials are important because we use them to make everyday objects. • Natural materials come from the world around us, such as the ground, plants and animals. • Materials made from natural materials are called human-made materials. • Transparent means you can see clearly through it. • Opaque means that you cannot see through it. 	<p>Recall & retrieval:</p> <ul style="list-style-type: none"> • Materials are important because we use them to make everyday objects. • Natural materials come from the world around us, such as the ground, plants and animals. • Materials made from natural materials are called human-made materials. • Transparent means you can see clearly through it. • Opaque means that you cannot see through it • A property is a quality a material has.
<p>Key Knowledge:</p>	<p>Key Knowledge:</p>	<p>Key Knowledge:</p>

<p>Child:</p> <ul style="list-style-type: none">• Transparent means you can see clearly through it.• Opaque means that you cannot see through it. <p>Teacher:</p> <ul style="list-style-type: none">• Light is allowed through an object so it is transparent.• No light is allowed through an object so it is opaque.	<p>Child:</p> <ul style="list-style-type: none">• Materials can be grouped according to their properties.• A property is a quality a material has.• Materials have different properties, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; waterproof or not waterproof. <p>Teacher:</p> <ul style="list-style-type: none">• A material's properties make it suitable for a particular use.	<p>Child:</p> <ul style="list-style-type: none">• Charles Macintosh invented a waterproof fabric.• This fabric was used in making raincoats.• 'Mackintosh' remains a popular name for a raincoat to this day. <p>Teacher:</p> <ul style="list-style-type: none">• Charles Macintosh set up the first alum works in Scotland in 1797.• He went on to develop new methods for the bleaching, printing and dyeing of cloth and for the manufacturing of iron.• He was elected to the Royal Society for discoveries in chemistry.• He produced his famous waterproof material by combining naphtha - a by-product of tar - with rubber and obtained a patent for the process in 1823.
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<u>LESSON 7</u>	<u>LESSON 8</u>	<u>LESSON 9</u>
<p>LEARNING INTENTION:</p> <p>To know that materials can be waterproof and absorbent.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.</p>	<p>LEARNING INTENTION:</p> <p>To know that simple tests can be carried out by following a set of instructions.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p>	<p>LEARNING INTENTION:</p> <p>To know that the results are information that has been found out from an investigation.</p> <p>Disciplinary Knowledge:</p> <p>Aim: Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p>
<p>Key Vocabulary: waterproof, not waterproof, absorbent, non-absorbent, soak, liquid</p>	<p>Key Vocabulary: investigate, investigation, record, predict, Venn diagram, sorting, grouping, property</p>	<p>Key Vocabulary: observe, record, information, results, conclusion</p>
<p>Recall & retrieval:</p> <ul style="list-style-type: none"> • Materials are important because we use them to make everyday objects. • Natural materials come from the world around us, such as the ground, plants and animals. • Materials made from natural materials are called human-made materials. • Transparent means you can see clearly through it. • Opaque means that you cannot see through it • A property is a quality a material has. • Charles Macintosh invented a waterproof fabric. 	<p>Recall & retrieval:</p> <ul style="list-style-type: none"> • Materials are important because we use them to make everyday objects. • Natural materials come from the world around us, such as the ground, plants and animals. • Materials made from natural materials are called human-made materials. • Transparent means you can see clearly through it. • Opaque means that you cannot see through it • A property is a quality a material has. • Charles Macintosh invented a waterproof fabric. • Waterproof means that the material will keep out water. 	<p>Recall & retrieval:</p> <ul style="list-style-type: none"> • Materials are important because we use them to make everyday objects. • Natural materials come from the world around us, such as the ground, plants and animals. • Materials made from natural materials are called human-made materials. • Transparent means you can see clearly through it. • Opaque means that you cannot see through it • A property is a quality a material has. • Charles Macintosh invented a waterproof fabric. • Waterproof means that the material will keep out water. • Absorbent means that the material will easily soak up liquid.

	<ul style="list-style-type: none"> Absorbent means that the material will easily soak up liquid. 	<ul style="list-style-type: none"> A Venn diagram is a way of grouping information or objects using overlapping circles.
<p>Key Knowledge:</p> <p>Child:</p> <ul style="list-style-type: none"> Waterproof means that the material will keep out water. Absorbent means that the material will easily soak up liquid. <p>Teacher:</p> <ul style="list-style-type: none"> The properties of a material determine its uses. Materials can be grouped according to their properties. Non-waterproof means the material will not keep water out. Non-absorbent means that the material will not soak up liquid. 	<p>Key Knowledge:</p> <p>Child:</p> <ul style="list-style-type: none"> Materials can be grouped according to their properties. A Venn diagram is a way of grouping information or objects using overlapping circles. <p>Teacher:</p> <ul style="list-style-type: none"> It can be used to group objects according to their properties to find their similarities and differences. 	<p>Key Knowledge:</p> <p>Child:</p> <ul style="list-style-type: none"> Objects, materials and living things can be looked at and compared. The results are information that has been found out from an investigation. <p>Teacher:</p>
<p>Assessment Cumulative Quiz. Retrieval Practice.</p>		