Theme Overview

Year	4	Term	Summer 1
Theme	Is Ice Water?	Big Question	Is Ice Water?

Focus of unit and scope of unit:

Throughout this unit will develop an understanding of solids, liquids and gases. They will begin to make accurate measurements and learn how to make more careful observations to draw scientific conclusions. The children will record the information in tables that they have constructed.

They will use their science knowledge to solve everyday issues such as how to dry socks in the fastest way. The children will link their science learning to develop their understanding of the water cycle.

In art the children will look at artists that use reflection. They will learn about watercolour and the use of a wash. They will look at how the monochromatic tints are used to create mood and perspective. They will increase their knowledge of painting techniques to create a reflection painting that has texture.

Caring	Creative	Critical	SMSC/Equalities/British Values
The children will explore their understanding of emotion in colour. They will respect each other's views and thoughts as they discuss which art they like best and evaluate their own art. The will work as a team listening to each other's ideas to work out which is the best way to dry socks.	The children will explore cover and perspective to produce their own reflection painting using watercolour techniques. They will observe carefully the changes in science of solids, liquids and gases and represent these in diagrams. They will come up with creative questions to investigate.	The children will make careful observations and take accurate measurements to work out what temperatures different things melt at. They will use their knowledge of science to draw conclusions after carrying out investigations.	Children make sense of the world and learn about the water cycle. Children work together to find answers to questions and listen to each other's ideas. Children will learn about a range of artists from different eras and cultures that created reflection paintings. Children understand the importance of following safety rules in science and expressing and respecting each other's conclusions and ideas. Children through discussion of art show tolerance of other's ideas and preferences.

Big Start	Big Finish	Experience
Corn flour experiment - is it a solid or liquid!	Art Gallery	Science Investigations – making a cloud

Science

<table>
<tr><td>Year 3</td><td colspan="4">Term</td></tr>
<tr><td rowspan="2">Sequence of Learning</td><td colspan="2">Previous Learning</td><td colspan="2">Next Steps in Learning</td></tr>
<tr><td colspan="2">Children have previously learned how to describe simple physical properties of everyday materials and how to compare and group together a variety of everyday materials. They had previously compared things carefully using simple observations.</td><td colspan="2">Children will use their learning on states of matter and extend this to look at separating materials through evaporation.
They will understand what happens when a solid such as sugar dissolves in a liquid.
Children will extend their knowledge of changing state and understand reversible and irreversible changes.
Children will be able to record observations more independently in different ways.</td></tr>
<tr><td rowspan="4">Knowledge and Skills</td><td>Planning an Investigation</td><td>Carrying Out an Investigation</td><td colspan="2">Presenting Evidence and Drawing Conclusions</td></tr>
<tr><td>I ask relevant questions and use different types of scientific enquiries to answer them.
I can set up simple practical enquiries, comparative or fair tests.
I decide what observations and measurements to make and what equipment to use.</td><td>I use a range of equipment (including thermometers).
I make systematic and careful observations and take accurate measurements using standard units.
I use information sources provided to find things out.
I record results in tables I have started to independently draw.</td><td colspan="2">I present my data in a variety of ways using e.g. Venn diagrams, bar charts, simple scatter graphs and keys.
I can make conclusions and I make predictions for new values.
I communicate what I have found out using straightforward scientific ideas and I report my findings using oral and written explanations and display.</td></tr>
<tr><td colspan="2">Substantive Knowledge</td><td colspan="2">Famous Scientists</td></tr>
<tr><td colspan="2">States of matter
Group materials based on their state of matter (solid, liquid, gas).
Know how some materials can change state.
Explore how materials change state.
Measure the temperature at which materials change state.
Know about the water cycle.
Know the part played by evaporation and condensation in the water cycle.</td><td colspan="2">Bernard Palissy
The first published thinker to assert that rainfall alone was sufficient for the maintenance of rivers was Bernard Palissy (1580 CE), who is often credited as the discoverer of the modern theory of the water cycle.</td></tr>
<tr><td>Vocabulary</td><td>Solid: a state of a material when it cannot change shape, but holds the shape of whatever container it was frozen in. Liquid: a state of a material when it can flow from one place to another, and can be poured. Gas: a state of a material when it fills the entire space available. Matter: another name for ‘material’: what an object is made of; not just fabric.</td><td>Temperature: a measurement of how hot or cold something is Thermometer: a device or instrument used to measure temperature Melting: when a sold turns into a liquid Freezing: when a liquid turns into a solid Melting point: the temperature at which a solid melts Freezing point: the same temperature as a material’s melting point. This is the temperature at which a liquid turns into a solid</td><td colspan="2">Evaporation: when a liquid turns into a gas, below its boiling point Boiling point: the temperature at which a liquid turns into a gas Condensing: the process by which a gas turns into a liquid Water cycle: how water moves around to create clouds, rain and the weather Boiling: when a material reaches a temperature when it bubbles and rapidly turns into a gas.</td></tr>
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Art and Design

<table>
<tr><td>Year 3</td><td colspan="3">Term</td></tr>
<tr><td rowspan="2">Sequence of Learning</td><td colspan="2">Previous Learning</td><td>Next Steps in Learning</td></tr>
<tr><td colspan="2">Children have previously used tints in Year 3. They have experimented with the in paintings.
They have experimented using a range of brushes for different effects and have commented on colour and how this has made them feel.</td><td>The children will develop their learning further by learning about Monet's work in more detail.
They will build on their knowledge of using a wash to explore other painting techniques.</td></tr>
<tr><td rowspan="4">Knowledge and Skills</td><td>Being an Artist</td><td>Drawing / Painting / Sculpture</td><td>Elements of Art</td></tr>
<tr><td>Understanding different techniques
Developing and evaluating techniques

• Know how to build up designs evaluating and combining different ideas.
• Know how to show reflections in my art.
• Know how to use perspective and dimension in my art.</td><td>Knowing and applying techniques

• Know how to create a background using a wash.
• Know how to use colours of a single hue plus monochromatic tints.</td><td>Knowing and applying elements e.g. colour, form, line, pattern

Analyse and describe colour and painting techniques in artists work.

Use a range of techniques to express complex textures</td></tr>
<tr><td colspan="2">Work of Artists - Appreciation</td><td>Work of Artists - Art History</td></tr>
<tr><td colspan="2">Reflect upon the artists' work including my own work, and share your response verbally ("I liked… I didn't understand… it reminded me of… It links to…")
. • Experiment with the styles used by other artists.</td><td>Look at Monet, Van Gogh, Grant Curtis, Fredrich Hodler</td></tr>
<tr><td>Vocabulary</td><td colspan="3">Reflection
Wash
Monochromatic tints
Perspective
Dimension
Texture
Brush strokes</td></tr>
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