



The content of this unit of work is aimed at KS2 Geography and KS2 (year 4) Science, but could be adapted for use by other age groups or have additional extension activities included. It may be necessary to tailor the resources to the group of children being taught, by selecting slides and information to be included.

Does your school have a Policy for Science practical investigations and Risk Assessments for Science investigations?

It is suggested that a full risk assessment is written to complete some activities. Please follow the guidelines set by your school for the safe distribution and use of resources, equipment and materials. These activities are identified in the Unit of Work.

Links to the Science National Curriculum

Working Scientifically

- Asking simple questions and recognising that they can be answered in different ways.
- Using their observations and ideas to suggest answers to questions.
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Year 4

States of matter

Pupils should be taught to:

- identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

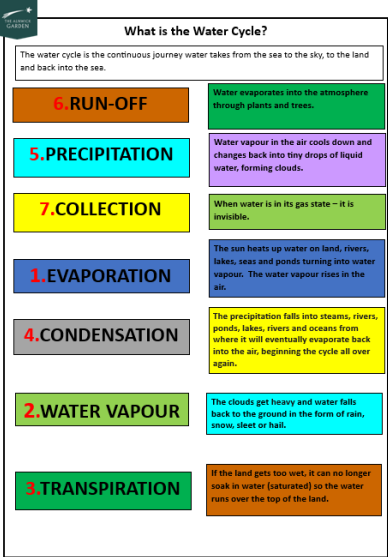
Links to the Geography National Curriculum

Key Stage 2

Human and physical geography

- describe and understand key aspects of:
 - physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the **water cycle**

LEARNING OBJECTIVE	LEARNING ACTIVITIES	RESOURCES
Starter	Display slide 2 Whole Class When you visited The Alnwick Garden, you will have seen some water features. Look at the map and point out where the water features are. Display Slide 3 with the answers: The Grand Cascade, The Pond, The Ornamental Garden and The Serpent Garden. Slide 4 shows actual photographs of this area.	Slides 2-4
I can identify key vocabulary associated with The Water Cycle.	Display slide 6 Watch the water cycle video – children may take notes when they are watching this. https://www.youtube.com/watch?v=xrYiH0vTXHQer cycle. You may also want to listen to the water cycle song. https://www.youtube.com/watch?v=gBbFxl6Oy94	Slides 5-7 Definition Activity Sheet 7 different coloured pencils

LEARNING OBJECTIVE	LEARNING ACTIVITIES	RESOURCES
	<p>Hand out the definition sheets to each child – children should colour in the key term box in one colour and colour in the definition box in the same colour to show the match. Each key term and matching definition should be coloured in different colours.</p> <p>Extension activity – ask the children to number the key terms in order (1-7) with evaporation being the first.</p> <ol style="list-style-type: none"> 1. Evaporation 2. Water Vapour 3. Transpiration 4. Condensation 5. Precipitation 6. Run-off 7. Collection <p>Cycle then starts again.</p> <p>Whole class feedback – using the interactive board – get the children to volunteer and colour in the key term to meet the definition.</p> 	
<p>I can label and explain a diagram illustrating The Water Cycle.</p>	<p>Display slide 8</p> <ul style="list-style-type: none"> • Watch the water cycle video again to reinforce your learning - https://www.youtube.com/watch?v=xrYiH0vTXHQer cycle. • Collect a Water Cycle diagram. • Using the key words on your definition sheet – enter the words into the correct boxes on your diagram. • Check your answers with your partner. • Do you both have the same? • Can you describe to your partner what is happening at each stage without any prompts? 	<p>Slides 8-11</p> <p>Water Cycle Diagram</p>
<p>I can describe the journey of a water droplet in The Water Cycle.</p>	<p>Display slide 13</p> <ul style="list-style-type: none"> • You are a water droplet in the sea about to start your journey on the water cycle. • Describe your journey through the cycle as you leave and then return to the sea to start your journey again. • Draw/Write this as a Storyboard. • Your teacher will give you your Storyboard template. 	<p>Slides 12-14</p> <p>Storyboard activity sheet (differentiated)</p>
<p>I can conduct an investigation to demonstrate the processes involved in The Water Cycle.</p> <p>Does your school have a Policy for Science practical investigations and Risk</p>	<p>Introduction:</p> <p>The water cycle is the continuous journey water takes from the sea to the sky, to the land and back into the sea. This investigation will highlight what happens to water in the water cycle.</p> <p>Allow children to collect their own equipment and follow the method. This could be completed in small groups.</p>	<p>Slides 15-16</p> <p>Hand out Water Cycle Investigation instruction sheet</p> <p>Equipment needed: Soil</p>

LEARNING OBJECTIVE	LEARNING ACTIVITIES	RESOURCES
<p>Assessments for Science investigations?</p> <p>It is suggested that a full risk assessment is written to complete some activities. Please follow the guidelines set by your school for the safe distribution and use of resources, equipment and materials.</p>	<p>Equipment: Soil Water Small plastic tub Large, clear plastic container Cling film Tape or large elastic band.</p> <p>Method:</p> <ul style="list-style-type: none"> • Create a landscape in the large plastic container - mould the soil to make hills and dig out a lake basin in the middle. • Place the small plastic container where you have created the lake basin. • Fill the container with water to represent the lake. • Cover the large plastic container with cling film and secure it with tape or an elastic band. The cling film represents the sky. • Leave the container in a sunny place and record findings each day – this could also be recorded as photographic evidence. • You could complete this using a smaller container and on a smaller scale but following the same method. <p>Please note - for the purpose of our investigation, we did place paint into our lake to indicate water. This is not a requirement.</p>	<p>Small and large plastic container Water Cling film Elastic band or sticky tape.</p>
<p>I can write-up my Water Cycle Investigation.</p>	<p>Using the science investigation guidelines and writing template, children should write up their investigation – adding to it once the investigation is completed.</p>	<p>Slides 17-20 Investigation Write Up Write up Investigation sheet</p>
<p>I can complete a quiz about the water cycle.</p>	<p>Display slides 21-29</p> <p>This can be completed as individual, pairs or groups.</p> <ol style="list-style-type: none"> 1. The wind blows the clouds over land and the clouds drop their water as rain, sleet or snow. True 2. When water evaporates from plants and trees it is known as perspiration. False 3. Condensation creates rain. True 4. Evaporation creates water vapour. True 5. Run off is the excess water that runs back into rivers and lakes. True 6. When heat from the sun heats up the sea, it turns the water into vapour. True 7. When the water runs into the lakes, rivers, streams, sea or oceans this this know as accumulation. False 8. The water cycle never stops. True 	<p>Slides 21-29</p>