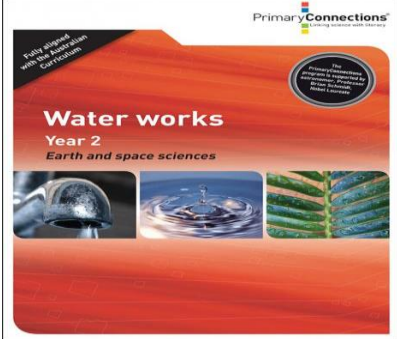



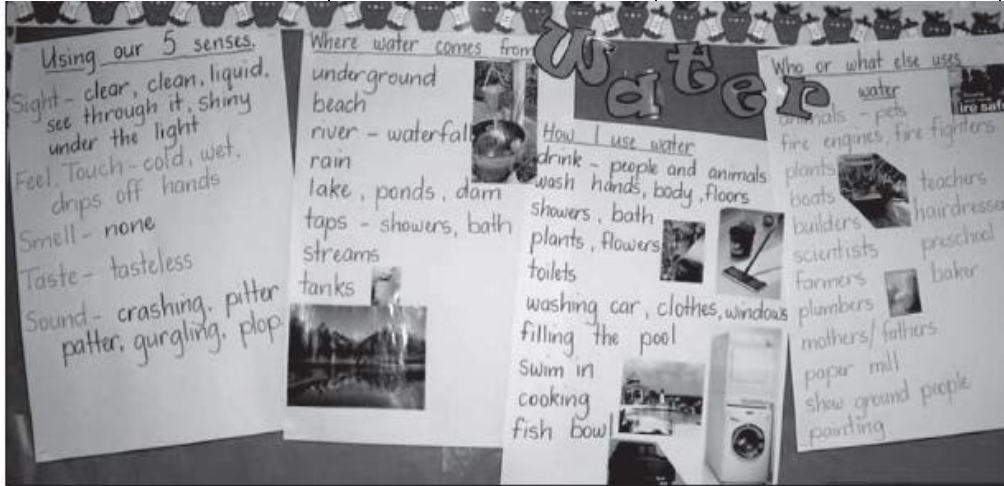
Water Year 2 Science & Technology Unit 2015


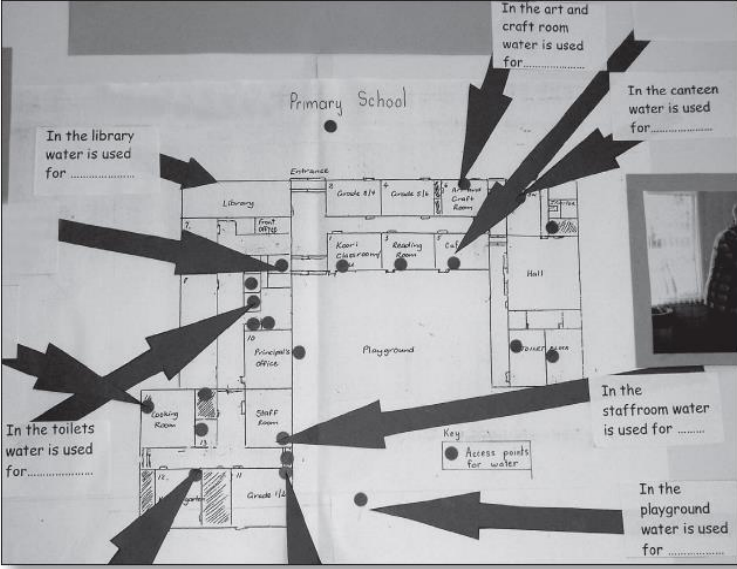
Water Works (PCR)


Term:	1	2	3	4	Week:	1	2	3	4	5	6	7	8	9	10	11						
UNIT OVERVIEW											ASSESSMENT											
<p>The <i>Water Works</i> Primary Connections Unit is an ideal way to link Science with Literacy in the classroom. This unit provides opportunities for students to develop an understanding of, and appreciation for, a precious natural resource. Through investigations, students explore how water is used, where water comes from and how to use it responsibly.</p>																	<p>Students will be exposed to a number of different types of assessments during this unit.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Diagnostic Assessment: occurs at the beginning of the unit. This assessment is used to elicit students' prior knowledge so that the teacher can take account of this when planning how the unit will progress. <input type="checkbox"/> Formative Assessment: occurs throughout the unit at various points. This assessment type enables the teacher to monitor students' developing understanding and provide feedback that can extend and deepen students' learning. <input type="checkbox"/> Summative Assessment: occurs towards the end of the unit. This assessment type is used to determine students' achievement of Science Inquiry Skills and Science Understanding as developed throughout the unit. 					
UNIT OUTCOMES																	ICLT Resources					
<p>Values and Attitudes: ST1-3VA – develops informed attitudes about the current and future use and influences of science and technology based on reason</p> <p>Working Scientifically: ST1-4WS – investigates questions and predictions by collecting and recording data, sharing and reflecting on their experiences and comparing what they and other know.</p> <p>Working Technologically: ST1-5WT – uses a structured design process, everyday tools, material, equipment and techniques to produce solutions that respond to identified needs and wants.</p>					<p>Knowledge and Understanding: Earth and Space ST1-9ES – identifies ways that people use science in their daily lives to care for the environment and the Earth's resources.</p> <p>Knowledge and Understanding: Built Environments ST1-14BE – describes a range of places and spaces in the local environment and how their purposes influence their design.</p>						<p>WEBSITES:</p> <ul style="list-style-type: none"> ○ www.australianscreen.com.au/titles/5-seasons/clip3 (Indigenous Perspectives: L1) ○ http://www.scootle.edu.au/ec/viewing/L19/index.html (Where does tap water come from?) ○ http://www.epa.gov/safewater/kids/flash/water_cycle_web3.swf (Water Cycle Interactive) ○ http://www.turtlediary.com/grade-1-games/science-games/the-water-cycle.html (Water Cycle Animation) 											
MATERIALS NEEDED FOR UNIT																						
<p>RESOURCE SHEETS: <input checked="" type="checkbox"/></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> See Primary Connections book '<i>Water Works</i>' <input checked="" type="checkbox"/> Thinking Themes – Water (MacMillan T.R.) 					<p>OTHER EQUIPMENT:</p> <ul style="list-style-type: none"> ○ Science Journals ○ Experiment equipment – see individual lessons 																	


UNIT AT A GLANCE


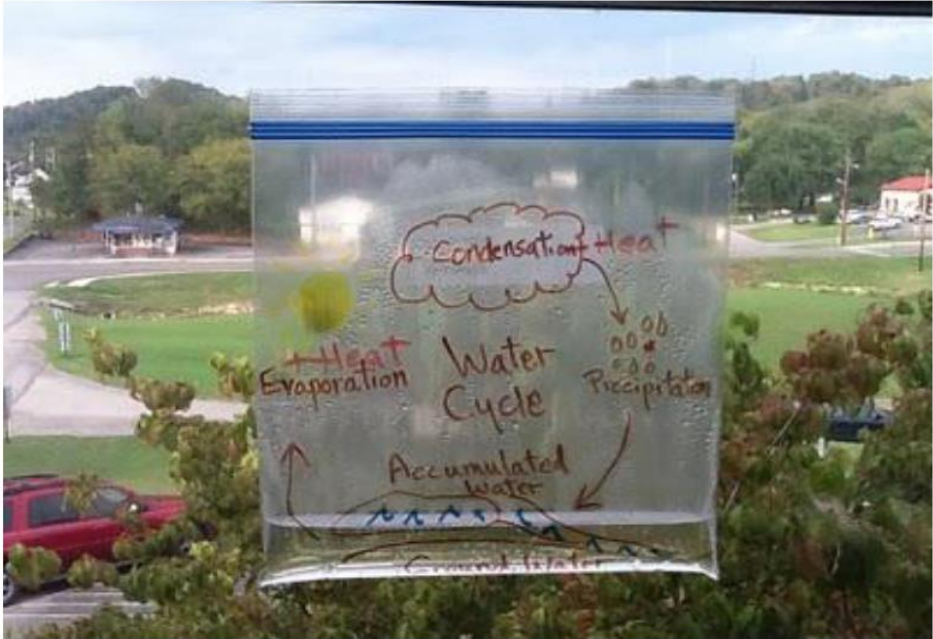
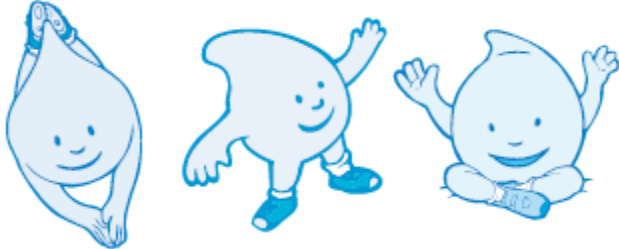
WEEK	LESSON	OVERVIEW OF TEACHING & LEARNING EXPERIENCE	ASSESSMENT
1	Wondering About Water ST1-4WS, ST1-9ES	<ul style="list-style-type: none"> → use their senses to describe water → record and share their ideas about water → discuss their ideas and questions for the class display wall 	Diagnostic Assessment: Elicit what students already know and understand about 'how water, one of Earth's resources, is used in a variety of ways and how people use science ideas in their daily lives to help them answer questions about water.'
2	Water Walk ST1-4WS, ST1-9ES	<ul style="list-style-type: none"> → explore the school to find evidence of water use → record and share their observations 	Formative Assessment: Monitor students' developing understanding of: → the variety of ways water is used, and how science involves asking questions about and describing changes in water use. → how and where rainwater contacts the Earth's surface, asking and responding to questions, and describing results of rainfall on different surfaces. → how rainfall can be collected, measured, recorded and compared using tools like a rain gauge. → how the water cycle works through diagrams and experiments. → how water can exist in a number of different forms and how this might impact of our environment. → how water is collected, how it is transferred from its source to its point of use
3	Rain, Rain → It's Raining ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE	<ul style="list-style-type: none"> → model what happens when it rains → investigate rain falling on a variety of surfaces → record and discuss observations 	
4	How much rain? ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE	→ create a rain gauge to measure and record the amount of rainfall over a set time period	
5	Where Does Water Come From? ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE	<ul style="list-style-type: none"> → respond to and pose questions, and make predictions about the water cycle → represent and communicate observations and ideas in a variety of ways 	
6	What Can Water Do? ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE	<ul style="list-style-type: none"> → explore the properties of water, including how water can exist in 3 states of matter – as a solid, liquid or gas → explain how water can transform between the different states 	
7			
8	How Do We Get Our Water? ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE	<ul style="list-style-type: none"> → investigate the journey of water from a source to a point of use → create a storyboard that represent the journey of water 	
9	Investigating Water Use At Home ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE	<ul style="list-style-type: none"> → predict how water is used at home → survey the patterns of water use at home → record and share their observations 	Summative Assessment: Assess students' ability to understand: → that water is used in a variety of ways in the home environment.
10		<ul style="list-style-type: none"> → survey the patterns of water use at home → discuss and interpret their observations 	
11	Informative Talks ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE	<ul style="list-style-type: none"> → record and share their ideas about water by completing a chalk talk (silent) interview → reflect on their learning and the learning of others. 	Summative Assessment: Exploring evidence of the extent to which students understand: → how water is used in a variety of ways, and how humans manage & protect water resources




WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>ONE:</p> <p>Wondering About Water</p> <p>ST1-4WS ST1-9ES</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Introduce one water-filled container to class. <input type="checkbox"/> Distribute plastic cups and allocate water to students. <input type="checkbox"/> Use 5 senses to explore what water looks like, feels like, tastes like, smells like and sounds like and record in Science journals <input type="checkbox"/> Introduce an enlarged copy of <i>Wonderful Water</i>. Discuss the questions: <ul style="list-style-type: none"> <input type="checkbox"/> Where does water come from? <input type="checkbox"/> What is water used for? <input type="checkbox"/> Who or what uses water? <input type="checkbox"/> How can I use water responsibly? <input type="checkbox"/> Students record ideas on <i>Wonderful Water</i> resource sheet and ask students to record their ideas using drawing and/or writing <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ask What do we want to know about water? And record student's questions on butcher's paper. For example: <ul style="list-style-type: none"> <input type="checkbox"/> What is water made of? <input type="checkbox"/> Where does water come from? <input type="checkbox"/> Where does water go? <input type="checkbox"/> Why do we need water? <input type="checkbox"/> Begin a word wall with vocabulary about water <p>KLA LINK:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ENGLISH: <ul style="list-style-type: none"> <input type="checkbox"/> Read and write poetry about water <input checked="" type="checkbox"/> CREATIVE ARTS: <ul style="list-style-type: none"> <input type="checkbox"/> Create artworks around water <input type="checkbox"/> Listen to and sing songs about water <input checked="" type="checkbox"/> INDIGENOUS PERSPECTIVES: <ul style="list-style-type: none"> <input type="checkbox"/> View www.australianscreen.com.au/titles/5-seasons/clip3 and discuss the problems caused in the town by the excess water <div style="border: 2px solid blue; border-radius: 15px; padding: 10px; margin-top: 10px;"> <p>Why do we use a word wall?</p> <p>We use a word wall to record words we know or learn about in a topic. We display the word wall in the classroom so that we can look up words we are learning about and see how they are spelt.</p> </div>		<p>Use water droplet shapes to record responses to questions</p>	<ul style="list-style-type: none"> → Wondering about water wall → containers filled with water → enlarged copy and student copies of 'Wonderful Water' (Resource Sheet 1) → 1 plastic cup each → Butcher's paper → Word Wall cards 
		<p align="center">'Wondering about water' wall</p>		

WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES						
<p>TWO:</p> <p>Water Walk</p> <p>ST1-4WS ST1-9ES</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Explain that we are going to investigate water use around the school. <input type="checkbox"/> Predict how are where they might see water being used around the school. <input type="checkbox"/> Discuss possible water access points, such as taps or hoses and record predictions <input type="checkbox"/> <u>OPTIONAL</u>: introduce a simple map of the school on which the places and ways water is used or accessed can be recorded <input type="checkbox"/> Go for a walk around the school grounds and buildings to look for examples of how water is used and how it is accessed by implements. <ul style="list-style-type: none"> <input type="checkbox"/> Take photographs of water uses and water access points for display <input type="checkbox"/> Record observations from the water walk upon returning to the class. Provide prompts such as: <table border="1" data-bbox="318 667 1117 928" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #FFD700;">Water is used for...</th> <th style="background-color: #FFD700;">Places where water is used ...</th> <th style="background-color: #FFD700;">Water access points at school are ...</th> </tr> </thead> <tbody> <tr> <td>Toilets Washing up Drinking</td> <td>Taps / sink Pipes Bubblers</td> <td>Bubblers Canteen Toilets</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <input type="checkbox"/> Display and discuss images of water as it is found in different locations and as part of different environments, such as lakes, icebergs and in rivers etc. <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ask students to describe what they learnt about water on their water walk <input type="checkbox"/> Discuss examples of the ways students observed water being used responsibly or irresponsibly and being wasted <input type="checkbox"/> Update the word wall with words and images <p>KLA LINK:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MATHEMATICS: <ul style="list-style-type: none"> <input type="checkbox"/> Create a simple map of the school 	Water is used for...	Places where water is used ...	Water access points at school are ...	Toilets Washing up Drinking	Taps / sink Pipes Bubblers	Bubblers Canteen Toilets	<p>Assessment → (ST1-4WS, ST1-9ES)</p> <p>Find and record evidence of water use at school and share findings with peers.</p>	 <p style="text-align: center;">'Water is found in many places' classroom display</p>	<p>→ Wondering about water wall → Word Wall cards → digital camera/ iPad</p>
Water is used for...	Places where water is used ...	Water access points at school are ...								
Toilets Washing up Drinking	Taps / sink Pipes Bubblers	Bubblers Canteen Toilets								
										
				<p style="text-align: center;">Class map showing the ways water is used and accessed around a school</p>						

WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>THREE:</p> <p>Rain, Rain – It's Raining</p> <p>ST1-3VA ST1-4WS ST1-5WT ST1-9ES ST1-14BE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Discuss students experiences with rain and introduce pictures/photographs that feature rainy settings. <input type="checkbox"/> Explain that students are going to investigate what happens when rain falls on different surfaces. <input type="checkbox"/> Introduce 'Rain, Rain' resource sheet as a means for recording observations after the experiment <input type="checkbox"/> Predict what might happen to water when it falls on some of the following surfaces: <ul style="list-style-type: none"> <input type="checkbox"/> Sand <input type="checkbox"/> Soil <input type="checkbox"/> Grass <input type="checkbox"/> Bark <input type="checkbox"/> Sloping areas <input type="checkbox"/> Concrete <input type="checkbox"/> Record students' predictions <input type="checkbox"/> Go for a walk outside and allow teams time to investigate what happens when water falls on different surfaces → photograph groups in action for wall <input type="checkbox"/> Students record observations on the Rain, Rain resource sheet <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Share observations and compare them with predictions. Use questioning an discussion to support students analysis and interpretation of observations: <ul style="list-style-type: none"> <input type="checkbox"/> What happened to the water that fell on the ... <input type="checkbox"/> What happened to the water that fell on the sloped area? <input type="checkbox"/> On which surface did the water ... (soak in, pool, run off, dry up)? <input type="checkbox"/> What do you think happens to water that gets soaked into the ground? Where does it go? Do you think we could collect this water and use it? <input type="checkbox"/> What do you think happens to the water runs off? Where does it go? Do you think we could collect and use this water again? <input type="checkbox"/> Update word wall <p>KLA LINK:</p> <p><input checked="" type="checkbox"/></p>	<p>Assessment → (ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE)</p> <p>Investigate what happens when rain falls on a variety of surfaces and record and discuss observations.</p>		<p>→ Wondering about water wall</p> <p>→ Word Wall cards</p> <p>→ Enlarged copy of 'Rain Rain' sheet plus copy of each student</p> <p>→ 1 cup with small holes in the bottom for each person</p> <p>→ water</p>
		<p>Students investigating water falling on different surfaces</p>		

WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>FOUR:</p> <p>How Much Rain?</p> <p>ST1-3VA ST1-4WS ST1-5WT ST1-9ES ST1-14BE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Ask students what they already know about measuring rainfall and why people might capture, measure and record the amount of rain that falls <input type="checkbox"/> Display a picture of a commercial rain gauge and discuss its purpose <input type="checkbox"/> Explain that groups are going to make a rain gauge that we can use the measure the amount of rainfall. <input type="checkbox"/> Examine the procedural text for making a rain gauge and follow each step carefully to make the gauges. NB: students may need help cutting the top off to make the funnel. <input type="checkbox"/> Find a safe place within the school to keep the rain gauges so they can be observed regularly. <input type="checkbox"/> Record the amount of rainfall each day for a set time period as a bar graph using grid paper. <input type="checkbox"/> NB: if the bottle isn't flat add stones or sand to the bottom for more accurate measurements <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Questioning: <ul style="list-style-type: none"> ○ What do we predict will happen over our observation period? ○ How will we be able to predict when we might see rain? <input type="checkbox"/> Update word wall <p>KLA LINK:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MATHEMATICS: <ul style="list-style-type: none"> ○ Comparing, measuring and recording amount of water in the rain gauge using millimetres ○ Create a simple bar graph of recordings <input checked="" type="checkbox"/> ENGLISH: <ul style="list-style-type: none"> ○ Follow a simple procedure for making a rain gauge 	<p>Assessment → (ST1-3VA, ST1-4WS, ST1-5WT, St1-9ES, ST1-14BE)</p> <p>Measure, record and compare the amount of rainfall over a set period of time</p>		<ul style="list-style-type: none"> → Wondering about water wall → Word Wall cards → 500ml plastic bottles for each group → <i>Making a rain gauge</i> instruction sheet → measuring tape sheet

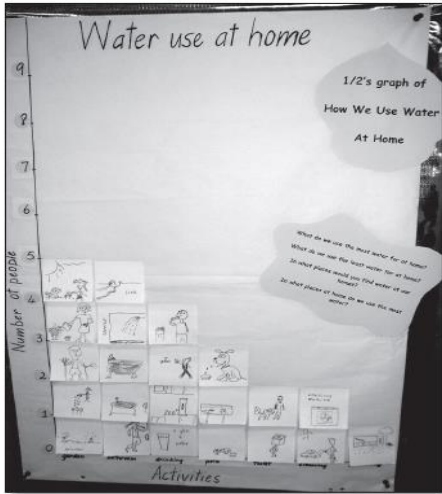
WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>FIVE:</p> <p>Where Does Water Come From?</p> <p>ST1-3VA ST1-4WS ST1-5WT ST1-9ES ST1-14BE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Introduce Whizzy water droplet to the class and ask students to suggest some things they have learnt so far about water and record ideas on small whizzy water droplets. <input type="checkbox"/> Display the water cycle poster with the word circles covered. Use a small whizzy shape and trace a journey, inviting volunteers to help explain what might be happening to the water droplet on its journey.  <ul style="list-style-type: none"> <input type="checkbox"/> Show the word cards and discuss the words (word meanings, connecting to what they already know about water). <input type="checkbox"/> Invite volunteers to suggest where the words could be placed on the poster and to give reasons for their suggestions. <input type="checkbox"/> Reveal the hidden words and introduce the term water cycle <input type="checkbox"/> Introduce 'Whizzy's Incredible Journey Pick-a-path' book for further discussion. <input type="checkbox"/> <u>Water Cycle in a Bag:</u> <ul style="list-style-type: none"> <input type="checkbox"/> Have students draw a diagram of the water cycle on the zip lock bag. <input type="checkbox"/> Tape the bag to the window where it will receive sunlight. <input type="checkbox"/> Record observations. <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Discuss the water cycle and how it fits with what we have learnt so far about water <input type="checkbox"/> Update word wall <p>KLA LINK:</p> <p><input checked="" type="checkbox"/></p>	<p>Assessment → (ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE)</p> <p>Examine and discuss the water cycle and create an experiment to show how the water cycle works.</p>		<ul style="list-style-type: none"> → Wondering about water wall → Word Wall cards → water cycle poster → Whizzy's incredible journey pick-a-path book → zip lock bags → water → window → permanent marker
				
				

WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>SIX & SEVEN:</p> <p>What Can Water Do?</p> <p>ST1-3VA ST1-4WS ST1-5WT ST1-9ES ST1-14BE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Can water do anything special? Can it change? <input type="checkbox"/> Introduce the fact that water can exist in three forms, as a solid, liquid and a gas. <input type="checkbox"/> Explain that we are going to explore how water changes through temperature. <input type="checkbox"/> <u>Activity One</u> – <i>What happens when you hold an ice cube in your hand?</i> <ul style="list-style-type: none"> <input type="checkbox"/> Have students predict what they think will happen and why. <input type="checkbox"/> Explain what they saw and felt, including an illustration using the activity sheet (5). <input type="checkbox"/> <u>Activity Two:</u> <i>What happens to the ice cube when we change the water temperature?</i> <ul style="list-style-type: none"> <input type="checkbox"/> Have students predict what they think will happen and why. <input type="checkbox"/> Explain what they saw and illustrate using the activity sheet (5). <input type="checkbox"/> <u>Activity Three:</u> <i>What happens to water when we heat it up?</i> <ul style="list-style-type: none"> <input type="checkbox"/> Have students predict what they think will happen and why. <input type="checkbox"/> Explain what they saw and illustrate using the activity sheet (6). <input type="checkbox"/> <u>Activity Four:</u> <i>What happens to water and food colouring when we put it in the freezer?</i> <ul style="list-style-type: none"> <input type="checkbox"/> Have students predict what they think will happen and why. <input type="checkbox"/> Explain what they saw and illustrate using the activity sheet (8). <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Discuss how water can be found in three different states. <input type="checkbox"/> How does this support what we already know? <input type="checkbox"/> Update word wall <p>KLA LINK:</p> <ul style="list-style-type: none"> <input type="checkbox"/> ENGLISH: <ul style="list-style-type: none"> <input type="checkbox"/> 'Nearly 2% of the world's fresh water is frozen in glaciers, icebergs and the icecaps of the Arctic and Antarctica. What would happen if all the ice melted? Complete a P.M.I graph (pg 10) 	<p>Assessment → (ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE)</p> <p>Predict the outcome of a range of experiments involving the changing states of water. Record and discuss observations.</p>	<div style="display: flex; justify-content: space-around; align-items: center;">    </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> SOLID LIQUID GAS </div>	<ul style="list-style-type: none"> → Wondering about water wall → Word Wall cards → ice cubes → 6 coloured ice cubes → clear plastic cups → ice cold water → lukewarm water → hot water → kettle → food colouring → freezer

WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>EIGHT:</p> <p>How Do We Get Our Water?</p> <p>ST1-3VA ST1-4WS ST1-5WT ST1-9ES ST1-14BE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Pose the question: <i>'If it has not rained today, how can we get water?'</i> <input type="checkbox"/> Lead a discussion to consider storage of water in dams and water tanks. Examine relevant images and observe the school water tanks. <input type="checkbox"/> Pose and discuss the question: <i>'How does the water get to our home or school from the dam?'</i> <input type="checkbox"/> Brainstorm the stages water might go through on its journey to the tap. <input type="checkbox"/> Explain that students are going to represent the stages of a water supply system by arranging pictures to create a storyboard. <input type="checkbox"/> Students order their storyboard before adding notes to describe what is happening at each stage. (Encourage students to look at the Wondering About Water wall for support). <input type="checkbox"/> Present small groups with a <i>'What If'</i> scenario card and ask them to discuss before sharing ideas (and why) with the class. <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Discuss student findings and how this support our learning so far. <input type="checkbox"/> Update word wall <p>KLA LINK:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 	<p>Assessment → (ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE)</p> <p>Demonstrate an understanding of the journey of water from a source to a point of use using a storyboard.</p>		<ul style="list-style-type: none"> → Wondering about water wall → Word Wall cards → My water story cards → Display paper → scenario cards




'My water story' storyboards presented as a flowchart

WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>NINE & TEN:</p> <p>Investigating Water Use At Home</p> <p>ST1-3VA ST1-4WS ST1-5WT ST1-9ES ST1-14BE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Explain that students will investigate how water is used in their homes. <input type="checkbox"/> Introduce an enlarged copy of 'Investigating Water Uses At Home' sheet and ask students to predict what kind of water uses they might find at home. <input type="checkbox"/> Explain that they will survey 4 places around their homes. The information will be used to complete a class investigation about where water is used at home and how it is used. <input type="checkbox"/> Students create a simple map of their homes and garden to record where water is used. <p><u>STUDENTS TO COMPLETE TASK FOR HOMEWORK OVER WEEK 9</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Pairs share their findings with each other and discuss similarities and differences between water uses. <input type="checkbox"/> Students place name in corner of each box and cut along dotted lines. <input type="checkbox"/> Ask students to suggest how we can group the information as a class <input type="checkbox"/> Use butcher's paper to create a graph, modelling labelling each axis. Create a name for the graph and titles for each axis. <input type="checkbox"/> Use questioning and discussion to support analysis and interpretation of information gathered: <ul style="list-style-type: none"> ○ How many different ways did we use water as a class? ○ How many homes use water to wash clothes? How many water plants? How many use water for drinking? ○ Are there other ways that you use water at home that aren't on this graph? <p><u>PLENARY:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Discuss examples of the ways water was used responsibly and irresponsibly and being wasted and record statements using a T chart. <input type="checkbox"/> How can we reduce our water footprints at home? <input type="checkbox"/> Update word wall <p><u>KLA LINK:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> <u>ENGLISH:</u> <ul style="list-style-type: none"> ○ Complete 'My Water Footprint' → think of a ways (or ways) that you might be able to reduce the size of your water footprint (pg 37) 	<p>Assessment → (ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE)</p> <p>Investigate the use of water around the home and compare and contrast this to the homes of others. Record, analyse and interpret information gathered using a graph.</p>		<p>→ Wondering about water wall</p> <p>→ Word Wall cards</p> <p>→ Investigating Water Use At Home Parts I and II</p> <p>→ butcher's paper</p>
				 <p>Sample graph of water use around the home</p>

WEEK	LEARNING AND TEACHING ACTIVITIES	ASSESSMENT TASK	EVALUATION	RESOURCES
<p>ELEVEN:</p> <p>Informative Talks</p> <p>ST1-3VA ST1-4WS ST1-5WT ST1-9ES ST1-14BE</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Revise some of the key topics and understandings from the unit <input type="checkbox"/> Introduce the thinking routine 'Chalk Talk' and discuss its purpose and how to undertake it <input type="checkbox"/> <u>Prepare:</u> Place a piece of butcher's paper with a prompt on it and place on tables around the room. <ul style="list-style-type: none"> <input type="checkbox"/> Where does water come from? <input type="checkbox"/> What is water used for? <input type="checkbox"/> Who or what uses water? <input type="checkbox"/> How can we use water responsibly? <input type="checkbox"/> <u>Chalk Talk:</u> Students rotate from prompt to prompt <u>silently</u> recording their reactions, ideas, and questions. They should read other's responses and they can add additional comments and questions to those responses. After providing sufficient time, have students circulate to another prompt/chart. Continue as needed. You may need to prompt students by helping them connect ideas and elaborate. <input type="checkbox"/> <u>Share:</u> Students return to their beginning chart and read the responses given. Students identify comments/ questions/ ideas that are relevant to the prompt and also ones that may show deep thinking about the topic. <p>PLENARY:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Discuss as a group each of the prompt posters. <input type="checkbox"/> Update word wall <p>KLA LINK:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 	<p>Assessment → (ST1-3VA, ST1-4WS, ST1-5WT, ST1-9ES, ST1-14BE)</p> <p>Record and share ideas about water in a chalk talk and reflect on their learning and the learning of other's about water.</p>		<p>→ Wondering about water wall</p> <p>→ Word Wall cards</p> <p>→ Butcher's Paper</p> <p>→</p>

Chalk Talk

Activating Prior Knowledge and Ideas, Questioning



Preparation- Write a prompt on chart paper and place on tables around the room. Place markers at each table.

Chalk Talk- Have students rotate from prompt to prompt and silently record their reactions, ideas, and questions. They should read other's responses. They can add additional comments and questions to those responses.


Circulate- After providing time, have students circulate to another prompt/chart. Continue as needed. You may need to prompt students by helping them connect ideas and elaborate.

Share- Students return to their original chart and read all the responses.

Assess- Look for relevance and deep thinking.

Making Thinking Visible

Background by: Tinessa Orman



Wonderful water

Name: _____ Date: _____

Where does water come from?

What is water used for?



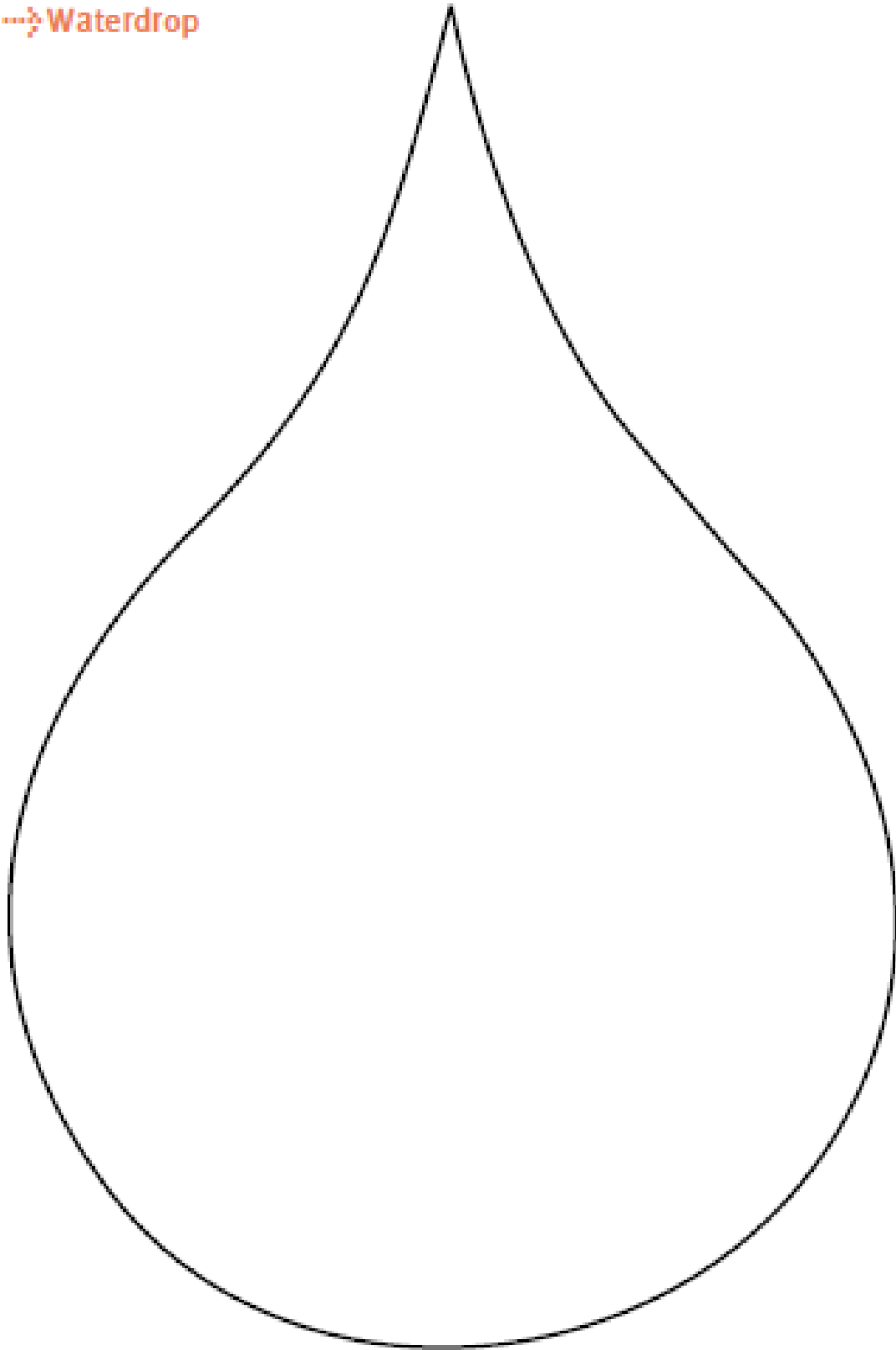
water

Who or what uses water?

How can I use water responsibly?

Resource 1

→ Waterdrop



Rain, rain



Name: _____ Date: _____

What happens when water falls on different surfaces? Investigate and record your observations.

Surface tested	What happened?

Resource 2

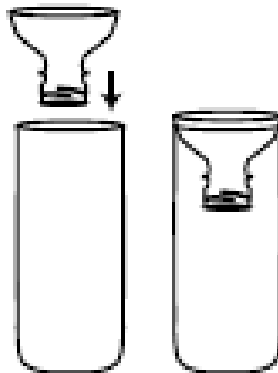
→ Making a rain gauge

Materials

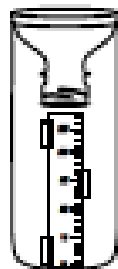
- 500 mL flat-bottomed plastic bottle with the top cut off
- top of the bottle to use as a funnel
- waterproof clear tape
- ruler or laminated measuring strip
- permanent marker

What to do

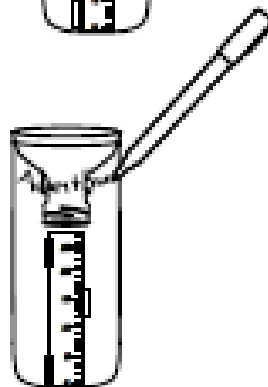
1. Place the funnel in the top of the bottle.



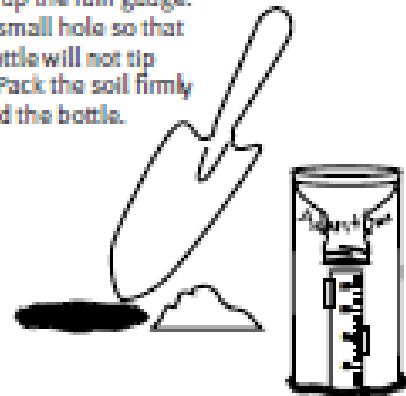
2. Tape the ruler to the side of the bottle, making sure that the '0' on the ruler is level with the base of the bottle.



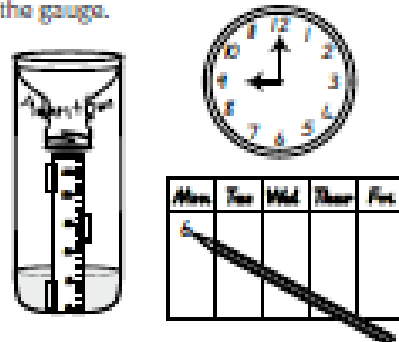
3. Use a permanent marker to write your names on the gauge.



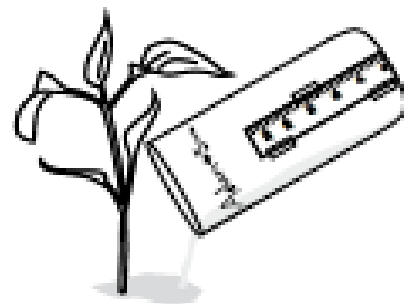
4. Decide on an open place to set up the rain gauge. Dig a small hole so that the bottle will not tip over. Pack the soil firmly around the bottle.



5. Check the rain gauge at the same time each day and record how much water is in the gauge.

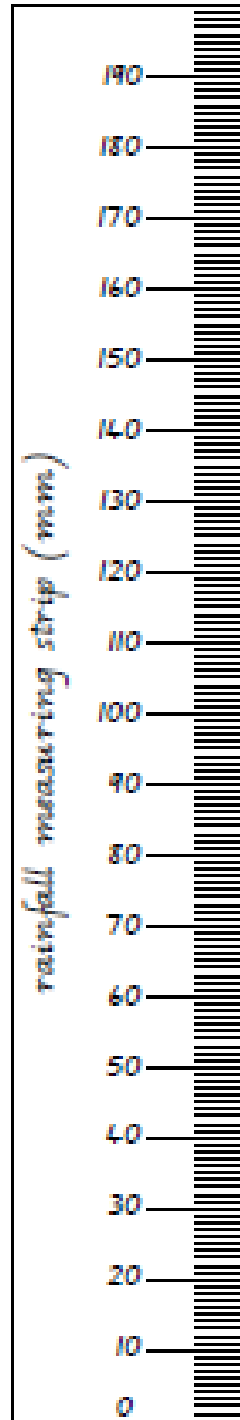


6. Empty the gauge each day after the amount of water is recorded.



Resource 3

→ Rainfall measuring strip



Resource 5

→ Temperature change

Question 1:

What happens when you hold an ice cube in your hand?

What do you think is going to happen?

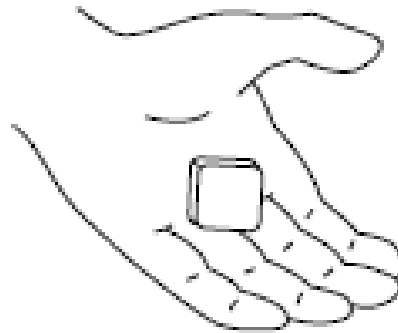
I think that _____

because _____

What happened?

I saw _____

I felt _____



My drawing of what happens

Resource 5 (continued)

Question 2:

What happens to the ice cube when we change the water temperature?

You need:

- 6 coloured ice cubes
- 3 transparent plastic cups
- ice cold water
- lukewarm water
- hot water
- stop watch (optional)



To make sure this is a fair test, look at all three cups at the same time.

What do you think is going to happen?

I think that _____

because _____

What happened?

I saw _____

I touched the plastic cups and _____

My drawing of what happens

Resource 6

→ Heating water

Question: What happens to water when we heat it up?

You need:

- one kettle
- one plastic jug

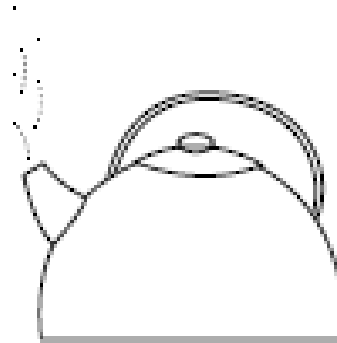
What do you think is going to happen?

I think that _____

because _____

What happened?

I saw _____



My drawing of what happens

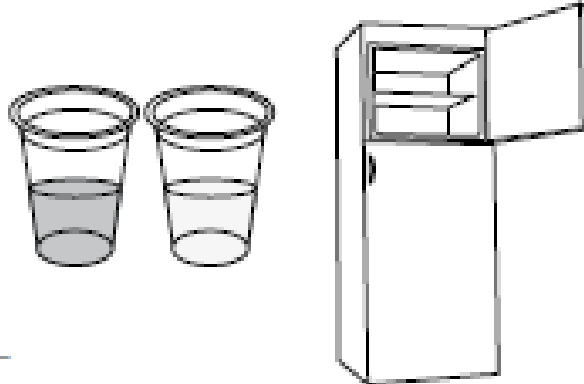
Resource 8

→ Liquid to solid

Question: What happens to water and food colouring when we put it in a freezer?

You need:

- clear plastic cup of water
- clear plastic cup of water with food colouring
- access to a freezer



What do you think is going to happen?

I think that _____

because _____

What happened?

I saw _____

My drawing of what happens

A large, vertically oriented rounded rectangle with a dotted border, intended for a student to draw their prediction of what will happen in the experiment.

Investigating Water Use At Home - Part I

In our Science class this term we have been investigating water, including how it is used. We are going to investigate four places at home and record examples of water use that we can find. **This resource sheet needs to be back at school by next week (Week Nine).**

In each space, write or draw what the water is being used for and who uses it.

Place:

Place:

Place:

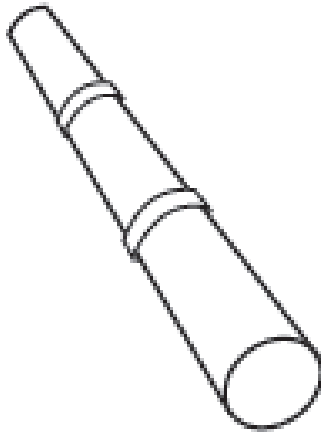
Place:

Investigating Water Use At Home - Part II

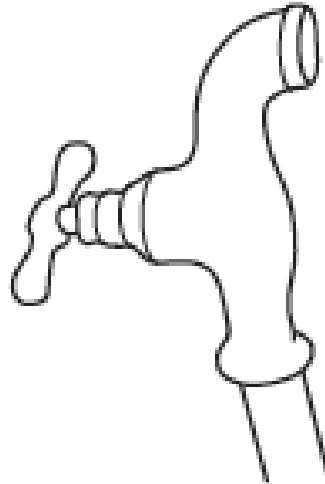
Draw a simple map of your home and garden to record where water is used in the space below.

My water story

Name: _____ Date: _____



Pipes



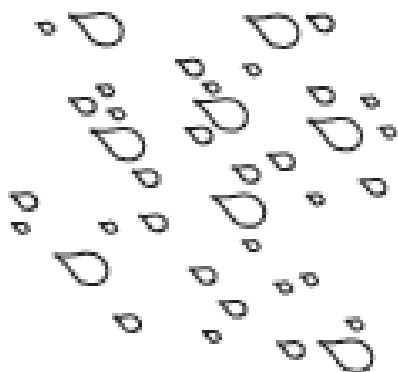
Tap



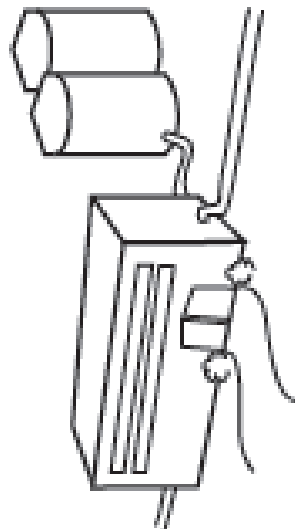
Dam



River



Rain



Water treatment plant

What If Scenario Cards

What If...

1. What if the water coming out of the taps looked dirty?
How might it affect our use of the water?
What could we do about the dirty water?

What If...

2. What if you could only have a set amount of water each day, for example a bucket?
How could you manage the water available to you?

What If...

3. What if the water supply where you live had to be cut off for a set period of time?
What could you do?

What If...

4. What if our area only had a limited supply of water?
How might it affect the way we live?
What could we do about it?

What If...

5. What if we had to pay for the water that runs down our drains at home or at school?
How could we re-use or reduce the water?

What If...

6. What if it didn't rain enough to fill our dams and tanks?
What can we do to make the water last longer?