Unit 1: Lesson 1

Water — Exploring water as a resource

Science start up

Today you will:
† review your knowledge of water and water use.

1. Consider what you learned today and what you already know about water.
   a) Explain where water comes from.

   b) List some ways animals use water.

   c) List the number of ways you use water.
Every living organism on Earth requires fresh water to survive, although some are able to filter salt water for their use or take in fresh water through other means. For example, koalas are marsupials that rarely ever drink water. They get most of the water they need from the eucalyptus leaves they eat.

Learn

You will:
† identify different sources of water
† understand water’s importance to daily lives.

Discussing water

Just how much water is available to drink?

Write a paragraph explaining why water is important to life on North Keppel Island.

Understanding types of water

3. Collect three samples of water from North Keppel Island and place in clear plastic cups, for example, tap water, tank water, creek water, dam water, bore water, ocean water, puddle water or bottled water.

Important: Be sure to exercise appropriate safety when collecting water samples by wearing protective gear such as goggles, gloves and/closed in shoes.
Look closely at your samples and complete the table below based on your observations.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Colour</th>
<th>Contents</th>
<th>Other observations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What colour is your sample? Is the sample a solid colour or more transparent?</td>
<td>Does the sample include particles such as sticks, leaves, dirt?</td>
<td>Does the sample appear clean?</td>
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4. Think about the water samples you have just examined.
   a) Is fresh water the same as clean water? Explain your reasoning.

   b) Consider whether you can tell that water is clean by looking at it. Explain.

   c) Describe what you think is meant by ‘clean water’.

   d) List methods you could use to ensure water is safe to drink.

   It is important to remember that clear, colourless water is not always clean or safe for drinking. Water can contain contaminants that are invisible to the naked eye and can’t necessarily be tasted. These can include things such as bacteria and chemicals that can only be detected through testing.

   Water from natural rivers, streams or creeks is not necessarily clean either. Contaminants can wash into natural waterways that can affect the water quality. Many of our water sources are tested for their quality and presence of substances before use.
Complete this cloze activity.

Word list:

salt water  clean water  potable  substance

Fresh water is a term that applies to water that is not (as found in the oceans). Salt water is water (that contains salt) found in oceans.

is suitable for human consumption and the word also means that the is suitable for human consumption.

Water use

6. Consider some ways your family uses water. Record three activities of your family members involving water and describe the type of water used. Think about recreational activities such as fishing, boating or swimming, or essential activities like cooking or cleaning.

Record your data in the table below.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Describe the type of water and justify</th>
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</table>
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a) What type of water do most of your family's activities require?

b) Explain why you think this may be.

Water in the environment

Think about the following questions: the
• Where does rain come from?
• Where does the rain fall?
• Where do plants and animals get water?
• How are clouds formed?

7. Demonstrate your understanding of how water moves through the environment by either drawing a labelled diagram.