About the Book

Learning how to follow directions, a skill essential to learning and daily living, requires practice. And what better way to help students feel confident than to provide them with opportunities to read and complete tasks on their own!

Every activity in this book requires the student to be a careful and critical reader. Directional words, colour words, number words and basic instructional words are stressed throughout the book. Most of the activities include a picture, pertinent information and directions for the student to follow in order to complete and/or enhance the picture.

Since the underlying theme used throughout the book is ecology, we hope that you and your students will enjoy following the directions to learn more about ecology and how to save our planet.

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Table of Contents

How to Use the Book

The first step in being able to follow written directions is the ability to read the words. You may wish to read over each activity before assigning it to your students. Determine if there are any words your students may have difficulty reading or comprehending. Introduce these words to the students so that they will feel more confident when doing the page independently.

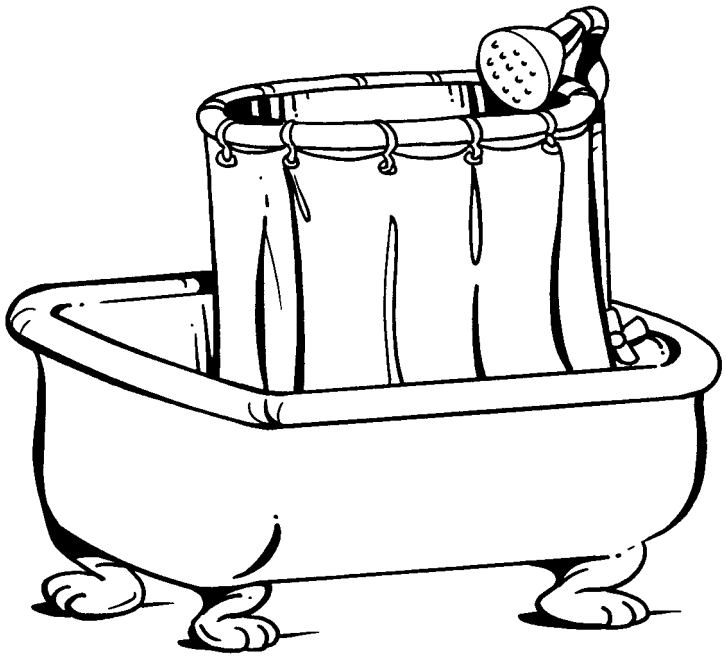
Adapt the way you use these activities to meet your needs. You may use them as assignments for the entire class, small groups or individuals. The topics of the activities allow for flexibility and are easily used as supplementary material with any reading series.

As you are fully aware, grade four and five students have a very diverse and broad span of reading abilities and skill levels. You might wish to try assigning the pages to cooperative learning groups. Have the students take turns reading the sentences aloud as each student in the group then completes the tasks. Or, perhaps have the members of each group work independently with a strong reader assigned to the group to help the other children with any difficult words.

Many classrooms have students for which English is a second language. Ask an older student, who is proficient in English, to help the ESL students pronounce the words and discuss the pictures. This would be an ideal opportunity for the students to increase their English vocabulary and to even learn a little more about the way of life in our country.

These pages may also be used in learning stations, as a quiet activity before school for those students who arrive early at school or for students who must stay inside during recess. Included here are only a few suggestions of how to use this book in your classroom. Do not, by any means, feel limited to these suggestions. Rather, use the activities in a way that best meets the needs of you and your students.

Down the Drain



All living things need water to survive. Yet, most of the world's water is not drinkable. Two thirds of Earth is covered by oceans that are too salty to drink. Many other sources are threatened by pollution. Our water supply is not endless. The supply we have must be protected. Let's take a look at how we use our water and how we can save water.

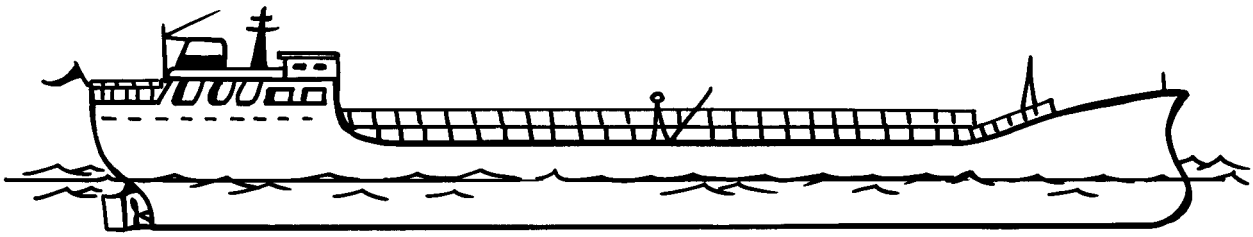
1. Write the names of 3 oceans in the upper right corner.
2. The average Australian uses 260 litres of water a day. Draw a large glass of water to the left of the shower. Estimate the number of litres an Australian would use in a year and write it on the glass.
3. The average bath uses 180 litres of water. A 5-minute shower uses 90 litres, or half the water of a bath. Write the fraction one half on the shower curtain.
4. A special 'low flow' shower head adds air to the water and cuts the water used by half again. Write the two rhyming words used here above the shower.
5. Describe what a day without water would be like on the back of your paper.
6. Running the rinse water while washing dishes wastes 125 litres. In the upper left corner, write 4 verbs that tell you what to do when washing dishes.
7. Running the water while you brush your teeth wastes 20 litres of water. Draw 10 two-litre milk bottles in the lower right corner. Figure out how many millilitres of water this would be. Write your problem on the milk bottles.
8. It takes 10-15 litres of water to flush a toilet. Multiply the number of people in your house by 10 and write that number to the right of the shower curtain.
9. On the back of your paper, write one way that you will try to save water.
10. To get a better idea of just how much 260 litres is, collect 260 empty one-litre milk cartons as a class project. Then, be sure to recycle them.

Groundwater

Water - it seems to be everywhere. It is even beneath the ground we walk on. We take for granted that it will be there every time we turn on a tap, but it is as valuable as the gold, oil and other treasures buried beneath Earth's surface.

1. Of all the water on Earth, we find 97% of it in our oceans. Another 2% of it is frozen. The remaining 1% is fit for us to use. Add these percentages and write the total on the bucket above.
2. This 1% can be found in our rivers, lakes, streams and groundwater. Write the name of a lake or river near your home to the left of the bucket.
3. Water seeps through the upper layer of earth into deeper layers where it fills the cracks and spaces between rocks, gravel, sand and soil. This is the water we call groundwater. Draw a picture of the layers of the earth to the right of the pump.
4. One half of the world's 6 billion people drink groundwater. Write the numeral for 6 billion above the pump handle.
5. Groundwater provides much of the water for our lakes and wetlands. It is replenished by precipitation. Draw 3 raindrops and 2 snowflakes to the left of the pump.
6. Hazardous wastes from industry, pesticides, fertilisers, animal wastes from farms, underground fuel tanks, landfills, septic systems and sewers are some of the causes of pollution in our groundwater. Circle the one you feel is the biggest danger in your area.
7. Earth is like a sponge, and groundwater is easily polluted. In fact, groundwater contamination has been found in almost every country. Write the names of 3 countries that start with E to the left of the pump.
8. One litre of oil can pollute 750 000 litres of water. How many litres of water would be polluted by half a litre of oil? Write your problem next to your drawing of Earth's layers.
9. If your water comes from groundwater, circle the title above. If not, write the source next to the title.
10. On the back of your paper, explain why drinking water was compared to gold and oil.

Oil Spills



Oil is one of our most natural resources. It is put to thousands of uses in countries all over the world. But it is seeping, leaking and spilling into our environment constantly. This is costing us, and the price isn't only a matter of dollars and cents.

1. These oil spills come from oil platforms built for drilling in the ocean floor. They come from tanker ships that carry oil all over the world and pipelines that carry oil over land for long distances. Find 3 nouns that name where oil spills come from. Write them to the left of the ship.
2. Many of these spills are a result of accidents caused by earthquakes, storms or fog. Circle the 3 causes of oil spills given in the last sentence.
3. Many other spills are the result of shipwrecks, fires and explosions on oil rigs and even intentional spills during wartime. Find two compound words in the last sentence. Write them in the upper left corner.
4. Oil spilled in oceans is often carried great distances by ocean currents. Beaches are covered by the black goo. To the right of the ship, write the names of two beach-going animals that would be affected by this.
5. Animals and birds can become covered with oil. Some become so soaked that they sink and drown. Others are poisoned trying to remove the oil from fur and feathers. Write the name of one fur-bearing animal and one feathered animal next to the title.
6. Fish are also poisoned, and their eggs are damaged. The fish suffer, and so do the people who depend on fishing for a living. Draw a fish net under the ship.
7. The oil that reaches the shore or oil that leaks from pipelines on land can seep into the groundwater. This pollutes the fresh water that many people depend on. Draw a glass of clean water in the upper right corner.
8. The quicker these messes are cleaned up, the less damage they do. One method of clean-up used is to try and encircle the slick with a large plastic 'fence' to keep it from spreading. Then, a machine called a skimmer is used to 'vacuum' it up. Circle the name of the machine used in the oil clean-up.
9. Absorbent materials like talc, sawdust or straw can be put on the oil. When it is soaked with oil, it then has to be removed. Write the definition of absorbent above the tanker.
10. Most people are quick to blame the large oil companies for these tragic spills. Maybe we should all share in the blame because we all use oil in some way. Write the name of an oil company on the oil tanker above.