

Science and Social Studies

Year 4 Term 1

Student Book

TERM 1

| God is ... | Page |
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| Love (5 weeks) | 2 |
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God is Love – Special Communities

The Elderly and Disabled

Thinking Skills

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| <p style="text-align: center;">Special Communities 1</p> <p>What would you do if you lost your sight?</p> <ul style="list-style-type: none">• How would people help you?• What equipment could help you?• What things could you no longer do? | <p style="text-align: center;">Special Communities 2</p> <p>What would you do if you lost your hearing?</p> <ul style="list-style-type: none">• What new skills would you have to learn to communicate?• What equipment could help you?• What things could you no longer do? |
| <p style="text-align: center;">Special Communities 3</p> <p>What if you had a serious accident and could no longer walk?</p> <ul style="list-style-type: none">• What things would you find difficult to do?• What equipment could help you?• How could people help you? | <p style="text-align: center;">Special Communities 4</p> <p>Many years ago a man named Louis Braille invented a system of raised dots on a page that a blind person could feel and therefore read a book in 'Braille'. Think of how to improve the Braille system so that the person hears the text at the same time as touching the page.</p> |
| <p style="text-align: center;">Special Communities 5</p> <p>A student in your school can only walk using crutches. Make some improvements to the design of your school building to make it easier for the student on crutches to get around.</p> | <p style="text-align: center;">Special Communities 6</p> <p>Make some improvements to a walking stick, that would help an elderly person.</p> |

Joni Eareckson

Biography

Reference: Irene Howatt, 2001, *Ten girls who changed the world*

Joni was born in 1949 in Maryland, U.S.A. She was the youngest of four daughters. Joni came from a Christian family. She knew about God and the Bible, but she didn't know how much God really loved her. When Joni was fifteen years old, she attended a Christian camp. It was then that she thought for herself about what the Lord Jesus had done for her, that He died on the cross for her. Before that, she believed in Jesus without thinking. But now a great flood of joy filled her as she realized that Jesus loved her so much that He died for her sins.

Her parents were very happy because they had prayed for their four girls since they were born.

As a teenager, she enjoyed riding horses, hiking, tennis, and swimming. One day, at the age of seventeen, Joni was swimming at the beach with her sister and a friend, Kathy and Butch. A big wave came and Joni went for a dive into the wave. Joni did not realize how shallow the water was. Joni did not surface. Kathy and Butch ran to find her.

Joni had not come up out of the water because she couldn't move, and she couldn't breathe. And still she couldn't rise. She could only hear a roaring noise above her head.

A wave came in and raised Joni a little from the sea-bed. Now Kathy and Butch could see her.

"Joni," she heard Kathy scream. Then Joni felt the strong arms of Kathy around her. Joni was filled with fear. Kathy's arms were around her, but she could feel nothing at all. Was her body there? She couldn't feel it.

Somehow, they got back to the shore.

"Can you feel that?" Kathy asked, touching her sister's leg.

"No," said Joni weakly.

"Or that?" Kathy's hand was moving up.

"No," said Joni again.

Then Kathy's fingers touched Joni's neck. Yes, Joni could feel something at the neck. But as she tried to reach out to hold Kathy's hand, nothing happened. She could not move her arms.

Then there was a screech of ambulance brakes. Joni found herself harnessed into a neck brace, lifted by the emergency team into the ambulance and, with siren wailing,

they left the beach for the hospital. Kathy sat beside her sister in the ambulance holding Joni's hand. Butch followed in the car. He prayed as he drove. Kathy wept all her tears to God. Joni was paralyzed from the neck down. She said the only words that came to her: "The Lord is my shepherd."

"Can you imagine what it is like for me," said Joni to Kathy the next day in the hospital. I can't wipe my nose or go to the toilet. I have to be fed, and washed and have my teeth cleaned."

Joni spent months in hospital with other patients who had broken necks. Although her family visited every day and did all they could to help, Joni was desperately sad. "I've got nothing to look forward to," she told her friends one day.

After her friends left, Joni prayed as she had never prayed before. "Nobody understands apart from you, Lord," she prayed. "I can only get through the days in this hospital if you help me. And I just can't imagine how I will get through life."

And God did help her. Joni had to spend the rest of her life in a wheel chair, but God used Joni's strong faith to help other disabled people. Although she could no longer do swimming and horse-riding, Joni set her mind to another skill. She became an artist, by learning how to paint with a brush between her teeth. Her paintings were very good and many people wanted to buy them.

After the accident, Joni thought that she would never get married, never work, never travel and never be happy again, but she was wrong. Joni did get married, and traveled the world to tell her story of how God had helped her to live a happy life, even though she was in a wheel chair. She worked by helping other disabled people and painting. Joni told people that whenever she started to feel sad about not being able to do things, she would count her blessings. That means, to think of all the good things that God has done for you.

There is a Bible verse that says, "We know that in all things God works for good with those who love him." (Romans 8:28)

God does not cause bad things to happen to people. But we live in a world where bad things sometimes do happen. But because God is very wise, He can turn the bad things to good when we pray.

Proverbs 10:22 The blessing of the Lord makes a person rich, and he adds no sorrow with it. (NLT)

Questions:

1. What good things did Joni do in her life with God's help?
2. What good things did God give her?
3. What is the name for the good things that God gives us? (starts with 'b')

Help for the blind

Guide dogs

A guide dog helps its blind owner to get around safely and independently. It guides its owner in a straight line, unless told otherwise, avoiding obstacles – including those at the owner’s head height. It will stop at the point where a footpath meets a road, stop at steps, crossings and places that are visited regularly. It will guide its owner across the road, but it is the owner who decides where and when to cross safely.

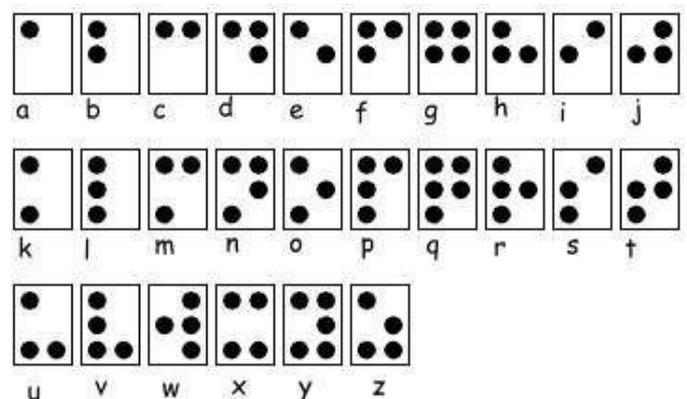
When guiding its owner:

1. What does a guide dog do when it comes to a road?
2. What would a guide dog do when there are people around?
3. What types of things would a guide dog help its owner avoid?
4. What else does the man in the picture have to help him find his way?



Braille books for the blind

Explain how a blind person could read a book using the Braille alphabet.



The Elderly 1

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| Student activities |
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As people grow older, they slow down and cannot react quickly.

1. *Think of an elderly person you know.*

- *Which daily jobs do they find difficult to do?*
- *When might they sometimes feel unsafe?*
- *What kind of help do they need?*
- *Do they have any physical problems?*

Moving around

Try moving your arm at the elbow. Try moving your hand at the wrist. The points where the body moves are called joints. They are like hinges. As we get older, the joints don't work as well. They can become stiff and it is hard to move around.

If they are about to trip over they react more slowly than younger people. They might fall. They might feel afraid of people rushing by them and might feel afraid that someone will bump into them.

2. *How would you move around an elderly person who cannot walk well? Be careful not to cause them to trip over.*

3. *What serious injury could happen to an elderly person if they trip over?*

The Elderly 2

Eating the right food

An elderly person needs to eat wisely. The body cannot break down and use as much sugar when we get old.

Muscles

An elderly person may not be able to exercise as much as younger people. Why?

An elderly person may therefore have less muscle. Protein foods can help to build muscle. Protein foods are meats, eggs, dairy products, nuts, seeds, lentils and chickpeas.

Bones

As people get older their bodies start to wear out. The body cannot mend itself as well as it used to. Bones get brittle and break easily and take a long time to mend.

Elderly people need to eat foods to help their bones stay strong. These foods are green leafy vegetables, fruits, vegetables, seeds and some dairy products.

Now that you know what foods an elderly person needs, and doesn't need, plan three healthy meals for an elderly person – breakfast, lunch and dinner.

The Elderly 3

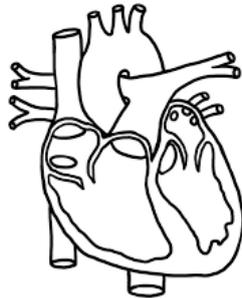
Heart

In an elderly person, the blood doesn't flow as quickly around the body. The arteries allow blood to flow around the body from the heart. But if they become blocked, it can cause a heart attack. To stop this from happening, an elderly person needs to eat good foods from nature. Junk foods can cause the arteries to gradually become blocked. This may start from when a person is much younger.

Teeth

Some elderly people have false teeth, or teeth missing, and can't chew as well as you can. This means they may not be able to eat hard foods like raw carrots or nuts.

1. Why should everyone eat good food from nature?
2. Why should we take good care of our teeth?
3. Draw a heart and colour the arteries red.
4. What would you do if someone you knew collapsed?



The Elderly 4

Hearing and eye sight

Most elderly people cannot see or hear as well as they used to.

When we speak to someone who cannot hear well we should talk to them close up and always look at them so they can see our lips.

1. What are some of the things they may not be able to do if they can't see well?
2. How would you feel if you couldn't hear well and there was loud music playing while someone was trying to talk to you?
3. How would you speak to an elderly person if they could not hear well?



The Elderly 5

God is patient, God is kind

The Bible says, "Love is patient, love is kind." (1 Corinthians 13:4).

Jesus was patient and kind with all people. Jesus was especially patient and kind with children. One day Jesus was going to teach about God, as He often did. But this day lots of children came up to Jesus. The disciples, (friends of Jesus), said, "Send these children away. They are being a nuisance." But Jesus said, "No, let the children come to me, because I love children, and children are part of the Kingdom of God." (Matthew 19:13-14)

Children can be God's servants by helping elderly people.

1. What could you do to help an elderly person?
2. Why should we be especially kind to elderly people?



The Elderly 6

Children have more energy than older people. Children are more active. A child might think it's boring to sit down quietly and have a chat with an elderly person. But remember, Jesus is patient with you, so He wants you to be patient with others. Some elderly people may be lonely or sad. Think about how much joy you could bring to an elderly person by spending time with them!

Elderly People can teach us many things

The Bible says, "Listen to your father, and when your mother is old show her your appreciation. (Proverbs 23:22 GNB)

Elderly people should be respected. They have a life time of experience to share with younger people. Grandparents can help their grandchildren to understand more about God.

2 Timothy 1:5 tells us about the faith of a grandmother called Lois.

1. Why would you need to show patience when helping an elderly person?
2. Why should we respect elderly people?



God is Provider – Water

Values:

Needs and Wants

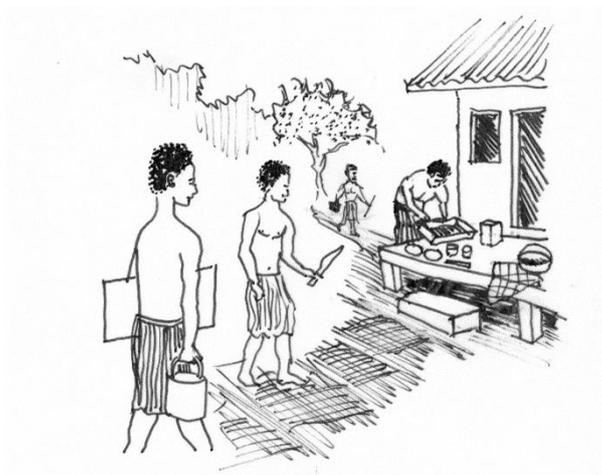


Take a piece of paper and fold it in half. On one side, draw and write a list of things you need, like food, clothes and shelter.

On the other side draw and write a list of the things you want but are not really necessary.

What does God say about providing for us in Philippians 4:19?

Makea of Rarotonga



John Williams had set out from England in 1817, for the Pacific islands. He decided that he would build his own ship from the materials he could find on the island of Rarotonga where he was stranded in 1827. As he prepared for the task, gathering odd tools, looking for timber among the trees of the forest, employing some of the strong young men from the villages around to help him, one man, a chief named Makea, took a special interest in what he was doing.

“I’d like to help you, Mr. Williams,” he offered. “I’m big and strong and can lift those heavy timbers easily. Just tell me what to do and I’ll do it for you.”

Makea certainly was big and strong. He was about 190 cms. (6 feet 2 inches) tall. He was also very heavily built. His upper legs were the same size as the missionary’s body. His feet and legs were beautifully decorated with tattoos up to two inches above the knee. Similarly, his hands and arms were decorated up to and above the elbows. His movement and general appearance gave the impression that he was born to rule. It was said that before the coming of the Christian missionaries he ruled with violence and tyranny, but he abandoned his cruel ways to a great extent with the coming of the gospel.

After the boat, ‘*Messenger of Peace*’ was completed John Williams was preparing to return to Raiatea, Tahiti. He spoke to Makea, “Makea, you have been such a great help to me in the building of the ship. I’d like to do something for you as a reward. Would you like to come on the ship with me when we return to Tahiti?”

“Thank you, Mr. Williams,” Makea responded enthusiastically, “that would be wonderful.”

So Makea visited Raiatea, Tahiti on the “*Messenger of Peace*” and became friendly with the local chiefs and people of Raiatea. They put on great feasts for him and generally showed him much kindness. But one chief began to doubt the missionaries.

“Why do you do so much for the missionaries?” he asked. “You don’t need to give them so much food, or work so much for them.”

Makea listened to these comments and began to act on them. He returned to Rarotonga in a small ship that was laden with food and presents from the Raiateans. When he arrived home, he was greatly puffed up with pride as he showed off his ship-load of goods. But his attitude to the missionary on Rarotonga, Aaron Buzzacott, had changed. Because Makea, the chief, was distant and not as helpful as he used to be, his people adopted the same attitudes. Aaron was feeling suddenly very unwelcome in the island. He called a meeting of the chiefs and the people and spoke plainly to them.

“There seems to be something different in the attitude of you people towards us. If we have offended you in some way, please tell us and we can make it right. If you are tired of having us on your island, then we can pack up and go to another island. There are plenty of other islanders who would be glad to welcome us and treat us more kindly than you are at present. We have made many sacrifices to come here for your good. The least you could do is show us a little kindness and respect in return.”

Aaron’s words had the desired effect and from then on, the unhelpful attitudes were gone and friendliness and goodwill were restored. That evening Makea visited Mr. Buzzacott, a scripture portion in his hand. Holding it up Makea promised, “Mr. Buzzacott, don’t be sad or heavy hearted. From now on I will follow this.” Although Makea was sympathetic to the missionaries and could see the good that the Christian teaching brought to the community, he had no personal commitment to following in the Christian way. But a change was to come.

Two women came to Aaron for counsel. One was Makea’s wife and the other was a woman from Aitutaki. This woman, named Tapaeru, was very helpful in

placing and protecting the first teachers on Rarotonga. Both women appeared very agitated and were obviously convicted of their sins.

“I feel so guilty and full of sins, Mr. Buzzacott,” cried Tapaeru, “would you allow me to confess some of them to you. The burden of them is too great.”

Most of the sins she confessed were sins of adultery, and some of them had involved her with Makea. The chief himself was suffering under his own guilty convictions. His brother, the ‘chief judge’ of the area under the mission’s system of law and order, had recently died. This had left Makea in the position of chief judge.

“But how can I judge others when I am guilty of the same sins myself?” he thought.

Makea went to see Aaron. “I am in deep trouble,” he began. “I have had to judge several men recently and found them guilty of adultery. But you know that I have been guilty of the same sins. I have no right to judge another man when I am guilty myself.”

“You’re right, Makea,” responded Aaron, “What do you think you should do about it?”

“But Mr. Buzzacott, that’s not all I’ve done. There’s a lot more.” And Makea poured out a long list of other sins he had committed, making a clean breast of it all.

“You ask me what I think I should do.” he went on. “I shouldn’t have special treatment because I’m a chief. I should be tried for my sins the same as everyone else.”

Naturally, no-one from the local area was willing to act as judge of the judge and chief, Makea, so they called for the chiefs and judges of the two nearby mission stations to come.

A large crowd of people, chiefs, judges and onlookers, assembled at the entrance of Makea’s house, which was the usual place for trials. Makea stood up before them all and solemnly confessed his sins, as did Tapaeru. The highly-respected judge of the other mission station passed the sentence on them both. They were required to pay fines and they listened while the judge spoke to them of their need to sin no more, faithfully following the examples of scripture. This

one act of total humility by their chief impressed and changed the people far more than many sermons or lectures from the authorities.

One Sunday Aaron preached about the story of Zacchaeus, emphasizing the need for restitution if anyone has done wrong to another person. This message brought a strong response. People came to the missionary's house with goods they had stolen, either from Mr. Williams during his visit, or from Mr. Buzzacott. There were various tools, knives from the kitchen, plates, articles of clothing, bed sheets; it was a remarkable array.

"I've brought you a chicken, Mr. Buzzacott, because I kept your tools for so long," said one.

"Here is some taro in this basket, Mr. Buzzacott. I'm sorry I stole your plates," offered another.

So the stolen goods were returned and other gifts of restitution were offered and accepted.

Makea had not taken any goods, but he had robbed some of the lesser chiefs of their lands, placing his favourites as tenants on the land. He sent a message to all the people he had offended in this way.

"Would you all come to a feast I am preparing for you," he requested.

The people all came for the feast, which was a wonderful array of pigs, chickens and taro cooked in the earth oven, spread out on banana leaves. They were wondering why they had been invited. After they had finished eating, Makea stood up before them, "I have done you many wrongs in the days before the Christian gospel came to our island. I took away your lands, but now I'm sorry I did that. Now we understand how the Creator God wants us to live I can't keep your lands any longer. I want you to go back again to your own lands and stay on them. I promise that no-one will disturb you again."

Every-one was amazed at this change in Makea's attitude.

"What a wonderful thing is the gospel!" they cried.

It was these events that brought Makea to the place of commitment of his life to Christ.

"I must follow after God's way truly, Mr Buzzacott," he said. "Will you teach me all about God the Creator and His Son Jesus," he begged. "I really want to know them in my heart. I also want to learn to read well, so I can read the scriptures."

He attended the adult reading class every morning, sharing the group with a reformed sorcerer, a former heathen priest, and three old warriors, all of whom had been notorious in their day for their cruelties and 'heathen abominations. If there was no-one else to teach them, the most advanced students from the children's school were placed in charge of this group of adults. It was truly an example of 'a little child shall lead them', as these children were to be seen teaching Makea and the older men the mysteries of reading and writing. After nearly two years of teaching Makea became a member of the church and from then on lived out his new-found faith in God.

Makea lived long enough after his conversion to prove the reality of the change brought about by having God in his life. As a chief he saw that the laws were enforced fairly for everyone. He had wide roads made to connect the villages. He prepared a list of prices for goods they traded in when whaling ships called. Previously the whalers had taken advantage of the islanders, but Makea wanted to see a fair deal for his people. The changes in his personality when he began to live the Christian life were so marked that he became highly respected by his islander people as well as Europeans.

"His rule began in times of fearful darkness and bloodshed. When it closed everything seemed changed", wrote Aaron Buzzacott of Makea. "The customs, the manners, the habits, the worship, the life of his people, were all changed. Makea was an example of the mighty way in which God can change people.

Adapted from: *Mission Life in the Islands of the Pacific*, Rev A. Buzzacott, John Snow & Co., London, 1866

Thinking Skills

| | |
|--|--|
| <p>Water cycle 1</p> <p>List 5 uses for water.</p> | <p>Water cycle 2</p> <p>Name 5 things that</p> <p style="text-align: center;">a river and a car tyre</p> <p>have in common.</p> |
| <p>Water cycle 3</p> <p>Try to justify this statement: “Children should be banned from swimming in rivers”.</p> | <p>Water cycle 4</p> <p>List 10 things that should NEVER be placed in water.</p> |
| <p>Water cycle 5</p> <p>The answer is</p> <p>“The water cycle”.</p> <p>Give 5 questions.</p> | <p>Water cycle 6</p> <p>Draw a water tank. Now redesign it by using the following steps:</p> <p>B – igger I – nstead of N – onsense G – et rid of O – ther uses</p> |

| | |
|---|---|
| <p style="text-align: center;">Water cycle 7</p> <p>You are on a desert island and need to find drinking water. Work out three ways of getting water.</p> | <p style="text-align: center;">Water cycle 8</p> <p>Find 5 uses for a plastic water bottle.</p> |
| <p style="text-align: center;">Water cycle 9</p> <p>You have to go away from home during the dry season. Work out 3 ways you could keep your plants watered while you are away.</p> | <p style="text-align: center;">Water cycle 10</p> <p>You are in a boat on a river, and your boat develops a leak. How can you solve the problem?</p> |
| <p style="text-align: center;">Water cycle 11</p> <p>You have gone on a mission trip to Africa. the people in the village only have dirty water to drink. How can you help them?</p> | <p style="text-align: center;">Water cycle 12</p> <p>A student does not like to drink water. This student only drinks juice or fizzy drinks. What health advice would you give them?</p> |

Water 1
Water for life

Student activities

All living things need water....the plants, the animals and us.
God created water to keep us alive.

People can only live for about 4 days without water.

Did you know that two-thirds of your body is made of water?

Think about where the water might be inside your body.

Water gives life. But Jesus said that there is a special kind of living water that only He can give. The living water that Jesus gives is the Holy Spirit. You can read about it in John 7:37 – 39.

Copy:

Jesus said, "Let anyone who is thirsty come to me and
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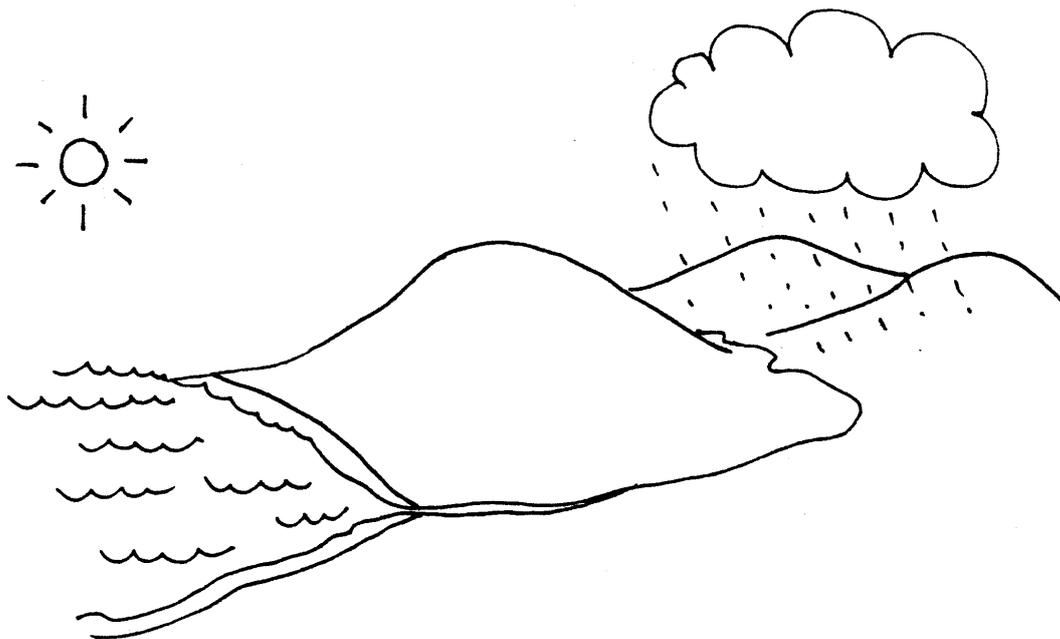
Water keeps all humans, plants and animals alive.
What kind of life does the Holy Spirit give us?

Water 2

The Water Cycle

Heat from the **sun** causes water to evaporate from the **sea**.
The **water vapour** rises and it becomes a **cloud**.
The water vapour changes to tiny water droplets when it is cooled.
These tiny droplets change to bigger droplets and it starts to **rain**.
The water goes into rivers and goes to the sea.
The water cycle starts over again.

Draw this diagram and use the words above in **BOLD** to label the diagram. Draw arrows to show how the water goes around.



Water 3

Water for life and health

Let's find out what happens to dirty water.

We use a lot of water keeping ourselves and our homes clean. BUT where does that dirty water go?

All of our household wastes (dirty water) wash away through underground pipes called sewage pipes. The pipes go to sewage farms where the dirty water is treated with chemicals and made safe to use again. If the sewage or dirty water is not treated properly it can be very dangerous and unhealthy.

In the old days, sewage or dirty water ran down open drains in the streets and into town water and rivers. Many people got sick and died because of the germs.

Today the pipes are underground and do not go near our water. After the sewage has been treated, some water can be used for the garden, (but not for drinking!)

Write the heading "**SEWAGE**" and answer the following questions in full sentences:

1. Where does all the dirty water from our homes go to?
2. What happens to the sewage once it gets there?
3. Why is this important?
4. What happened to the sewage in the old days?
5. What was wrong with this? What happened to the people in the old days and why?
6. Can we use sewage again after it is treated? What is it used for?

Are you a good detective?

Add the correct vowels to complete this poem. It has to rhyme.
Clues: There are three As, one E, one I, three Os and one U.

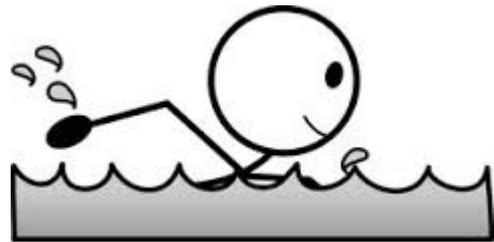
SPL__SH, SPL__SH, SPL__SH,

Y__ __ H__V__ T__ W__SH!

Water 4

How we use water

Copy the drawings and write a sentence for each.



Water 5

Write a poem

Dishes, dishes, dishes

Dishes, dishes, dishes,
Doing them is really against my wishes,
But if we let them build up high,
Nearly to reach the sky,
All the germs would think it was a good trick
And we would soon get very sick.

Dishes, dishes, dishes,
Doing them is a pain.
They keep coming round and round again.
But I'll help Mum
Because she doesn't have much fun
When she's the only one
Doing dishes, dishes, dishes

Now try writing your own poem about one of these:

1. dishes
2. showering
3. washing
4. water

Try to tell us something you think is important.



Water 6 Keeping clean

Make a poster about the importance of keeping clean and the ways we need to keep clean. This poster is to teach young children about keeping clean.

