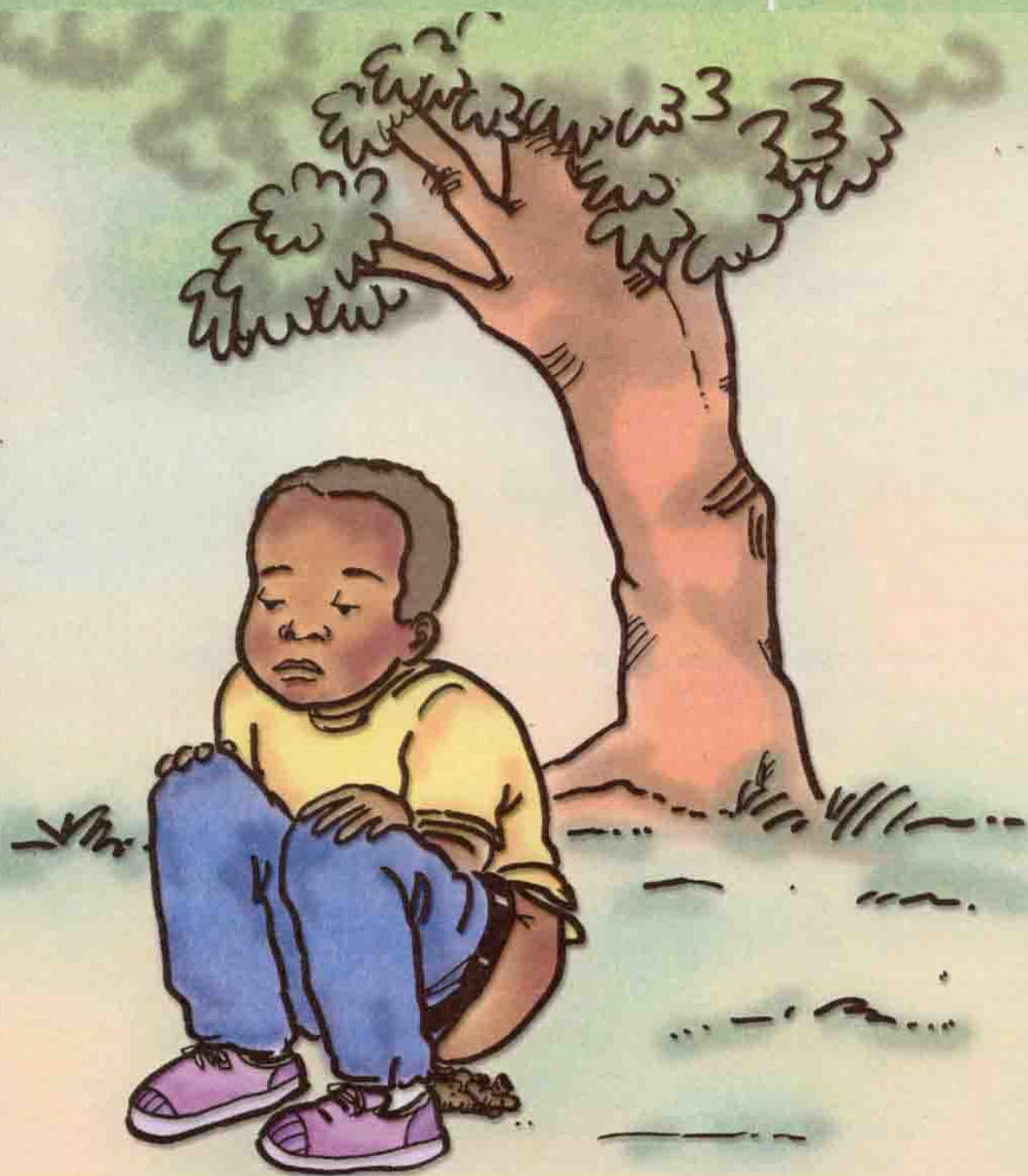


Foundation Phase: Teachers' guide

Unit 2: How do worms spread?



Unit 2 How do worms spread?

Contents

The following activities should take a week to complete.

Unit 2: How do worms spread and where do they come from?

Activity 1:	Too small to see	30 mins	★
Activity 2:	Freddy the fly	30 mins	★
Activity 3:	What else spreads worms?	30 mins	★
Activity 4:	The journey of the eggs (Book 2)	30 mins	★
Activity 5:	The voting game	1 hour	★

Total: 3 hours



Stars indicate core learning activities that must be completed.

Unit 2 How do worms spread?

What are the outcomes?

This unit looks at where worms come from.

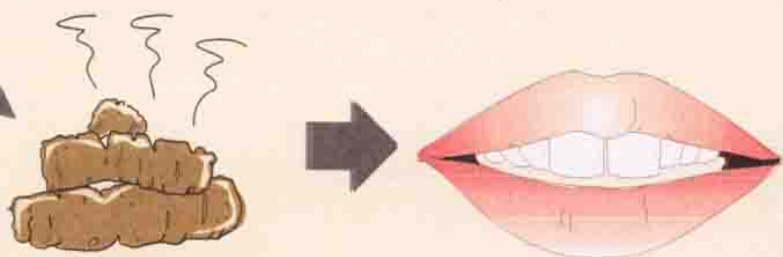
In the last unit, we looked at what worms do inside us. This unit tells the story of what happens to worm eggs and how they get inside us.

For your information:

Worm eggs are too small to see without a microscope. They come out with the faeces and they can infect another person if they are swallowed. Doctors call this an *anal-oral cycle* (from faeces to mouth). Many other diseases such as diarrhoea are spread in a similar way.

What is it?

Doctors call this faeces. We have used the word pooh. Choose a word that your learners will understand.



When eggs or germs are spread by flies from faeces to our food, doctors call the flies vectors. Dogs and rats can also be vectors. There are many other ways that eggs and germs can reach our mouths.

By the end of the unit children should:

1. know that we can only catch worms if we swallow the eggs.
2. know that these eggs are too small to see so they can spread easily
3. be able to identify a number of different ways in which worm eggs can get from faeces to the mouth.

Have I prepared?

For Activity 1, you need to choose either experiment 1 or 2.

You will need jars of sand, teaspoons and pepper for experiment 1, or you will need an onion (and knife) for experiment 2.

For Activity 2 and 3, you may want to enlarge the *fly and path cards*. You will also need copies of *Worksheets 11-14*.

For Activity 4, you need a copy of Thandi's story part 2. You will also need copies of *Worksheet 15*.

For Activity 5, you need a copy of the voting cards (at the end of the unit) and three "ballot" boxes.

Unit 2 How do worms spread?

Activity 1:

What you can't see — can hurt you!



Explain to the whole class how worms lay eggs inside our bodies. Thousands of eggs come out with our pooh. The eggs are too tiny to see with our eyes. This means they can spread easily. We can get them in our mouths without knowing it.

Choose either Experiment 1 or Experiment 2!

Experiment 1: Too small to see

Work in small groups.



You will need:

- a jar of sand, and
- a teaspoon of fine ground pepper for each group

Instructions

Ask the children to mix the pepper and sand together well. Then ask them if they can see the pepper.

Ask the children: What will happen to the pepper grains if it rains? What will happen when the wind blows?



Reflection

Explain to the class that worms eggs are even smaller than the pepper grains. They are so small that a fly can swallow them. We can't see them without a microscope. Ask the children why this could cause problems.



30 mins

Unit 2 How do worms spread?

Experiment 2

Make sure you know the instructions for this experiment before you start!

Preparation

Cut an onion or garlic clove into pieces.



Instructions

Work with the whole class.

Remember to ask the children to wash their hands *before* doing this experiment.

Bring a bowl of water and soap and a towel into the classroom if necessary.

Divide the class into three teams.

Ask for two volunteers from each team. Explain that one volunteer from each team will touch the onion (or garlic) and the other volunteer will not. When the six volunteers come back inside, the rest of the class must work out who touched the onion and who didn't.

Take the volunteers out of the classroom with the onion. Explain to the volunteers that they must remain silent until the end of the game. They cannot give the other children any clues. Rub some onion juice on the hands of three of the children (one from each team), then go back inside the classroom.

Ask the teams to work out who touched the onion.

Reflection

Encourage the learners to reflect on the experiment:

- How did they work it out?
- Could they tell by looking?
- How can you know if something is there, when it is invisible?
- What senses did they use? What about smell, taste?

Explain to the children that the worm eggs are invisible — just like the onion juice. Our hands may look clean, but we can have worm eggs on our hands without even knowing it.

Unit 2 How do worms spread?

Activity 2: Freddy the fly



Materials and preparation:

Read through *Flies spread worms*. Make sure you are familiar with the cycle of pictures at the bottom of the page.

You will need:

- a set of *fly cards*.
- copies of *worksheets 11, 12 and 13*
- prestik or sellotape



Enlarge the fly cards to the size that works best for class presentations.

Instructions

Work with the whole class.

1. Show the children the picture of the boy poohing. Remind them that this is how the worm eggs come out of the body. Stick the picture at one end of the blackboard.
2. Now show them the picture of the mouth. Remind the children that this is how the worm eggs get inside our bodies. Stick the picture at the other end of the blackboard.
3. Next show them the picture of Freddy the fly. Tell the children the story of how Freddy the fly helps to spread worms.
4. Show the children the remaining three pictures.
Ask for a volunteer to put the pictures in the right order.
(Correct the order if necessary with help of the group.)

Reflection:

Ask the children about flies at home. Can they think of any other ways that Freddy the fly could spread worms? Where else does he walk with his dirty feet?

Evaluation:

Hand out *worksheets 11, 12 and 13*.

Explain to the learners how to complete each worksheet. When they have completed the worksheets, ask them to share their answers with the rest of the class.

Make learning fun!

Work in small groups to act out the story of Freddy the fly and his dirty feet! Ask one child to be the fly. Make big models of pooh and food for the fly to walk on. Use coloured chalk to show where his dirty feet have been walking. Use your imagination and have fun!



30 mins

Flies spread worms and germs!

Worm eggs are so small you can't see them without a microscope. It is easy to get the eggs on our hands or in our mouths without even knowing it.

Worm eggs are so small that a fly can swallow them.

This is how flies help to spread worms!



①



A boy poohs in the veld.

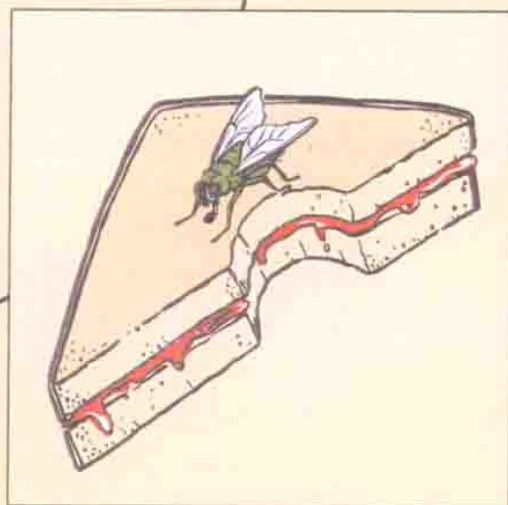


Flies land on pooh filled with worm eggs. The eggs get onto the fly's feet.

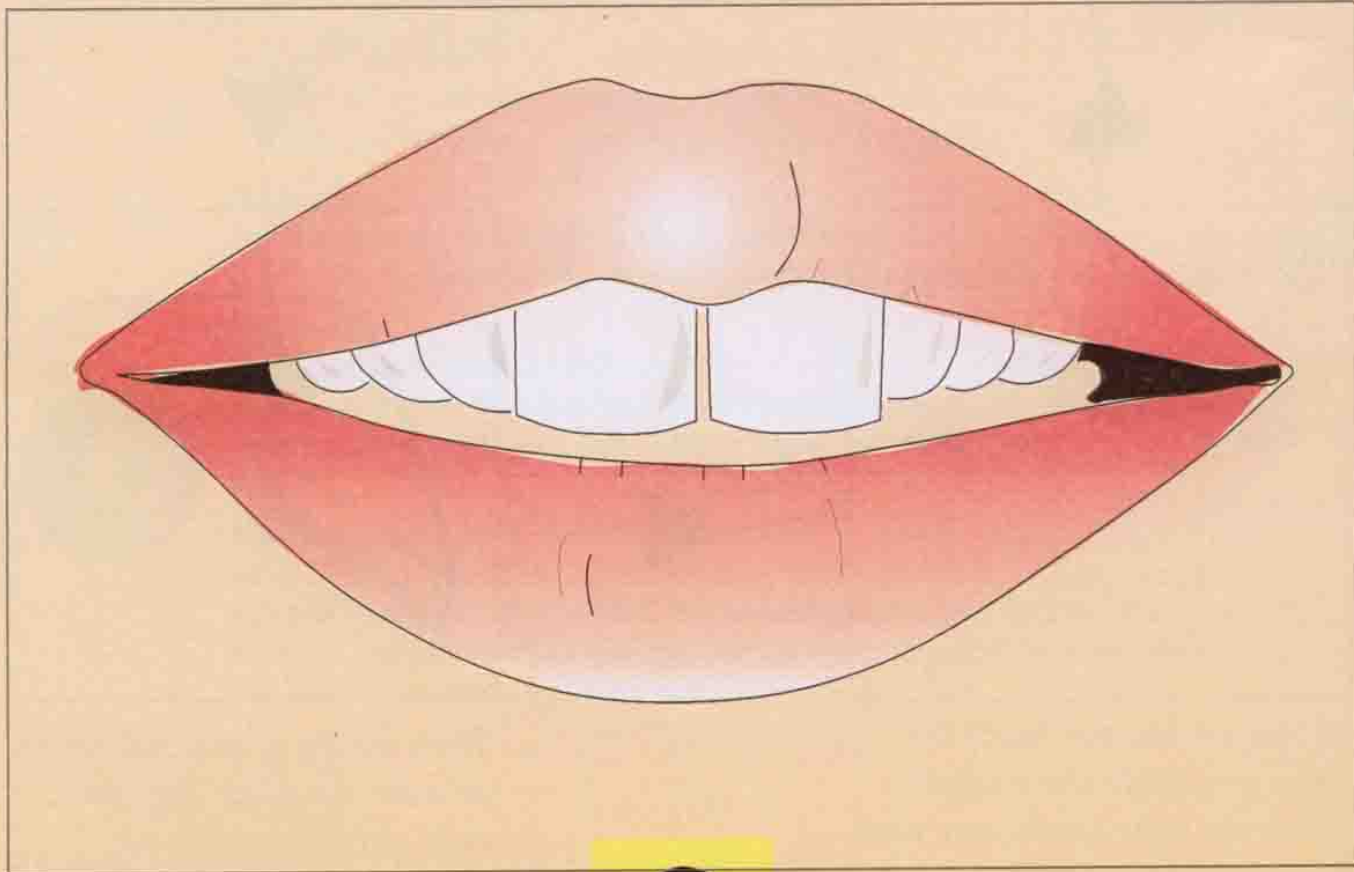
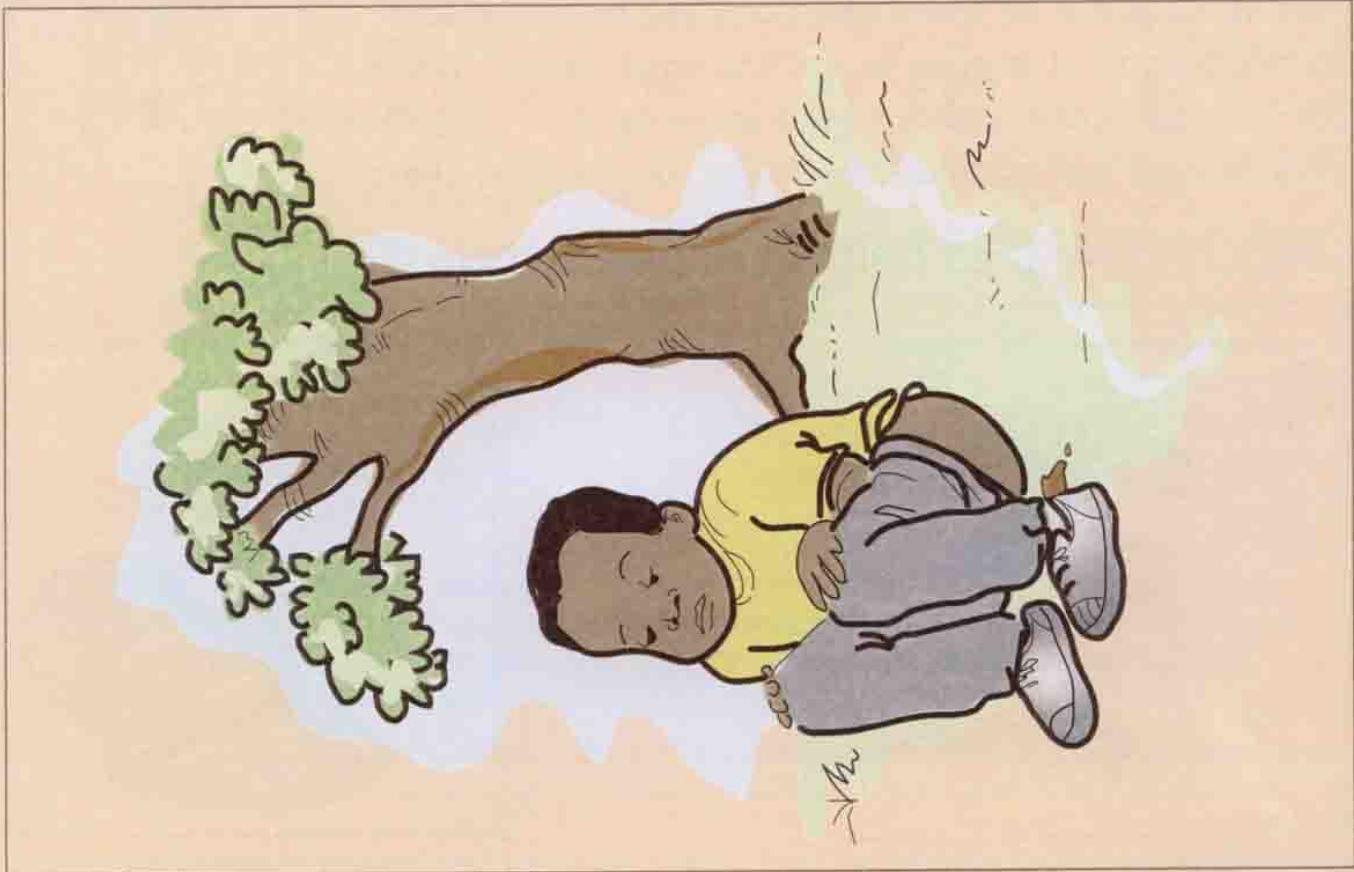
④



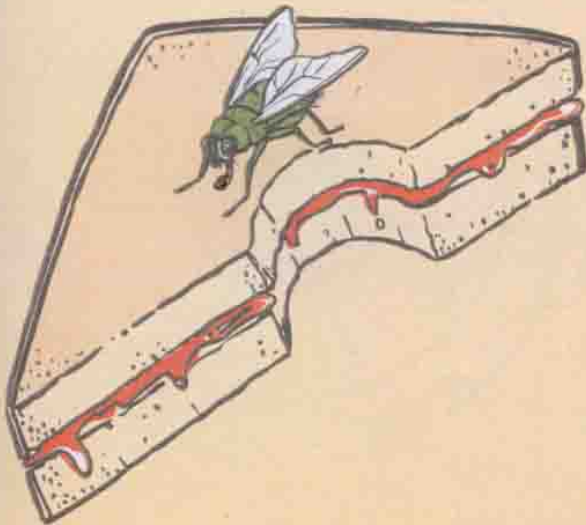
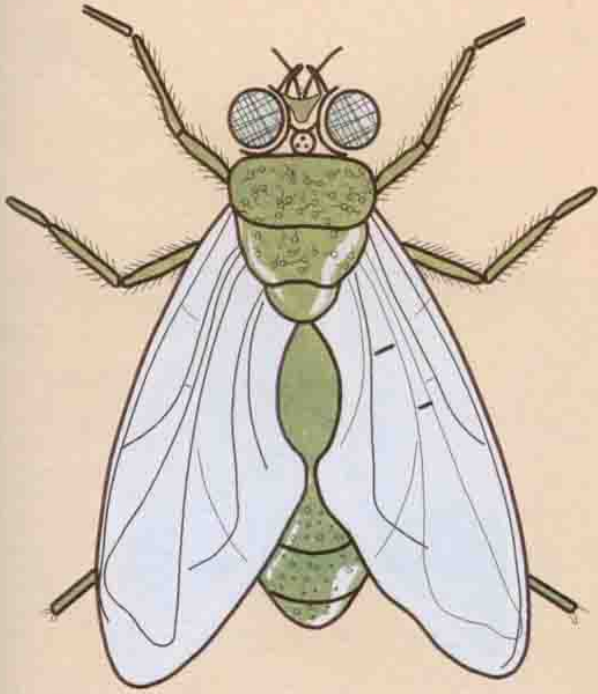
When we eat our food, the eggs get inside our bodies. Then the eggs hatch and start to grow into worms.



Then the fly walks and poohs all over our food. So, the eggs get onto our food.



Fly cards 2



Unit 2 How do worms spread?



Activity 3: What else spreads worms?

Materials and preparation:

You will need:

- a set of *path cards*
- picture cards of mouth and boy pooing (see *Fly card 1*)
- copies of *Worksheet 14*
- prestik or sellotape

Instructions

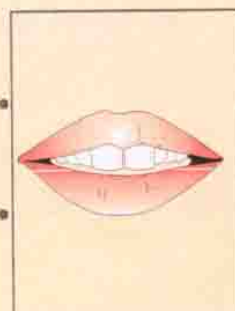
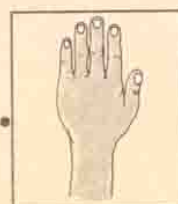
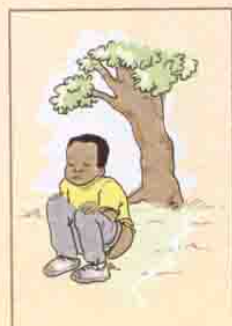
Work with the whole class.

1. Show the children the picture of the boy pooing. Remind them that this is how the worm eggs get out of our bodies.
2. Now show them the picture of the mouth. Remind the children that this is how the worm eggs get in. Stick the picture at the other end of the board.
3. Next show them the fly picture. Ask the children to tell you how flies spread worms.
4. Now show the *path cards*. Place the cards one-by-one on the board between the other two cards (as we have done below). Ask the children to work out how each picture could help carry the worm eggs from pooh to mouth.

Evaluation:

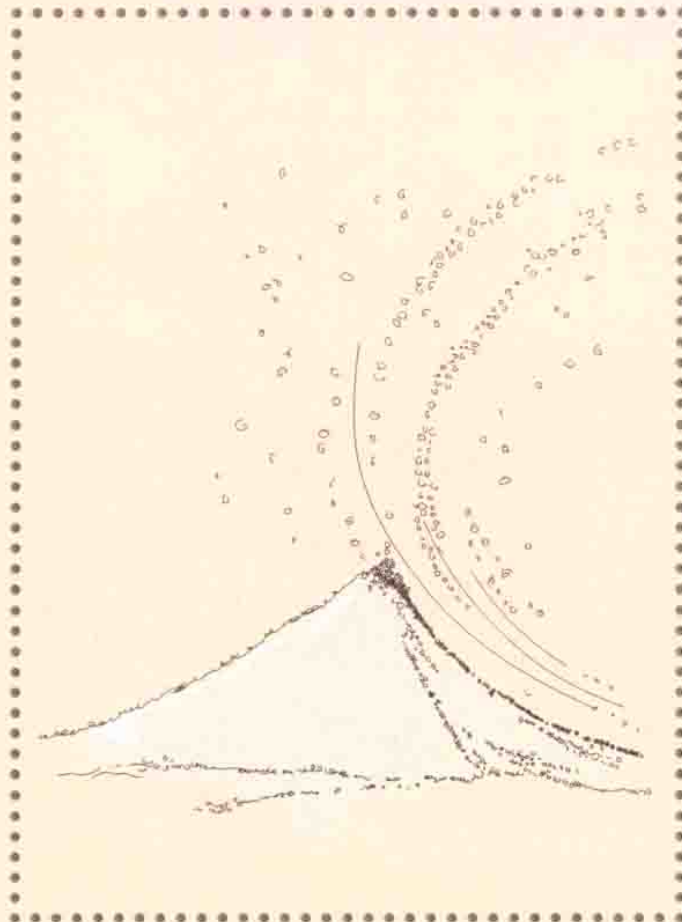
Hand out *Worksheet 14*.

Ask the children to fill in the missing words and to discuss the question in pairs.

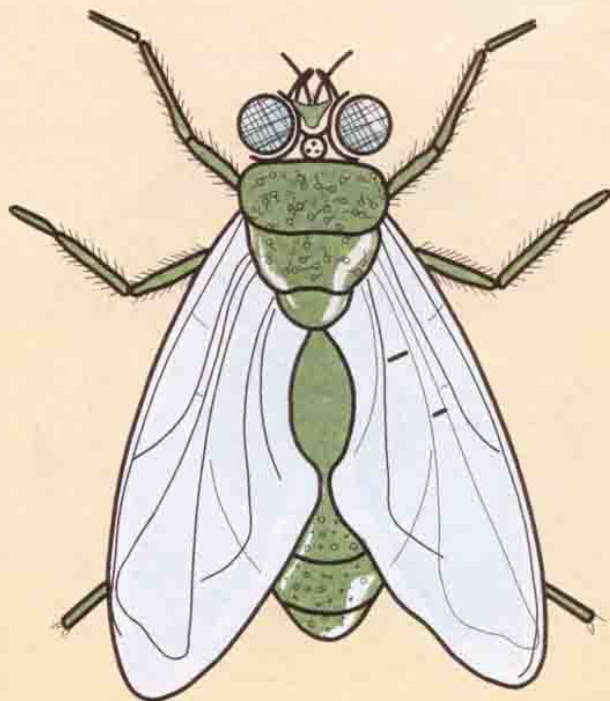
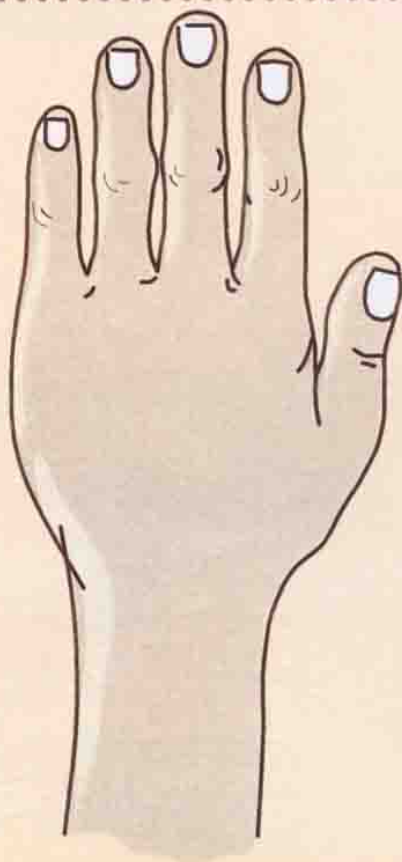
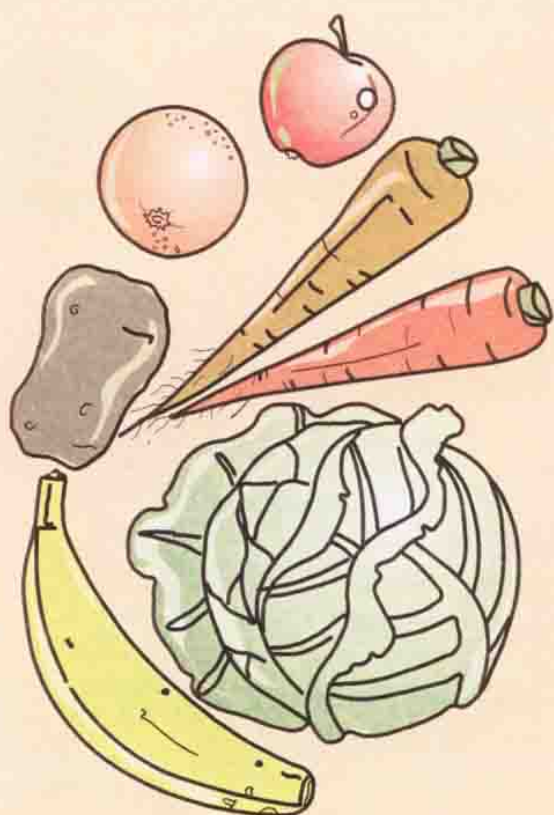


30 mins

Path cards 1



Path cards 2



Unit 2 How do worms spread?

Activity 4: The journey of the eggs



Work with the whole class.

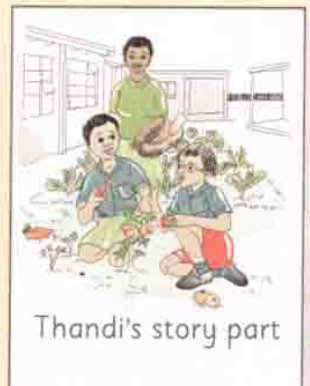
1. Read Thandi's story part 2 as you show the pictures.
2. Then turn to the back page and ask the learners to explain how each of these different things helped to spread worms in the story.
3. **Thandi's journey (Revision exercise)**
Handout copies of *Worksheet 15* to each learner. Show them Thandi's school and Thandi's home in the picture.

Ask them to think about Thandi's journey home from school. Where did she go and what did she do? Then ask them to draw a line showing her route home.

Then ask the learners to draw a circle around all the places where Thandi was worried about catching worms. Finally ask them to explain how each of the small pictures helps to spread worms.



4. **Discuss the following questions:**
Use the story to help the children think about the danger zones in their environment. Go on a fieldtrip to find out the answers to these questions:
 1. How clean are your school toilets?
 2. Do you have soap and toilet paper when you need it?
 3. Is the playground clean?
 4. Where do the children play after school? Is it clean?
 5. Are there toilets nearby that the children can use?
 6. Do the food sellers protect their food from flies and sand?
5. **Make your own storybooks.**
Help the children make their own stories about how worms spread. You can use the pictures from Thandi's story or the voting game to help you.



Thandi's story part

Unit 2 How do worms spread?

Activity 5:

The voting game

In this activity, you are going to sort a set of picture cards into three groups:

- (1) *Good* — things that are good for health,
- (2) *Bad* — things that are bad for health, and
- (3) *In between* — things that are neither good nor bad for health or things which you are not sure about.



What materials do I need?

- A set of the *voting pictures*
- Two ballot boxes: One with a label *good for health* and the other labelled *bad for health*
- A copy of the three *heading cards* for the wall chart
- Crayons, scissors and prestik to make the wall chart.



good



bad



in between



Instructions:

1. Tell the children that you are going to show them a set of pictures. They must decide which of the pictures are *good for health* and which pictures are *bad for health*.
2. Show the children the first picture. Ask them what they see in the picture. Then ask them to decide if the picture is good or bad for health. Encourage the children to give reasons for their choices (explain why). This allows children to learn from one another.
3. Ask the children to vote.
Ask the children to hold up their hands if they think the picture is *good for health*. Count the number of votes and fill in the number at the bottom of the card.
Then ask the children to hold up their hands if they think the picture is *bad for health*. Fill in the number of votes at the bottom of the card.
Finally, ask the children to hold up their hands if they are *not sure* if the picture is good or bad for health. Fill in the number of votes at the bottom of the card.



You can also start by handing out the pictures and asking children to colour them in. This will help learners identify what is happening in each picture before you begin!



60 mins

Unit 2 How do worms spread?

4. If the majority of the class says that the picture is good, then place the card in the good for health ballot box. If the majority says that the picture is bad for health put the card in the bad for health ballot box. If you can't decide if the picture is good or bad for health, keep the picture card in a separate pile.



5. Repeat steps 2–4 for each of the picture cards.
6. Help the class record what they have learned in this activity, by displaying the *voting pictures* on the wall. Ask the children to cut out and colour in the pictures. Group the pictures together to make a collage with two separate columns: *good* and *bad for health*. Don't forget to make a word or picture heading for each column. Make sure you don't get the two groups of pictures mixed up during the colouring!
7. Ask the group to think about **their own behaviour** (at home and at school). What things do *they* do that are good for health? What things are bad? Keep a record of their answers in your file. You can also ask learner to fill in *Worksheet 27*. This is a self assessment exercise. Ask them to draw pictures of what **they** do that is *good* and *bad for health*.

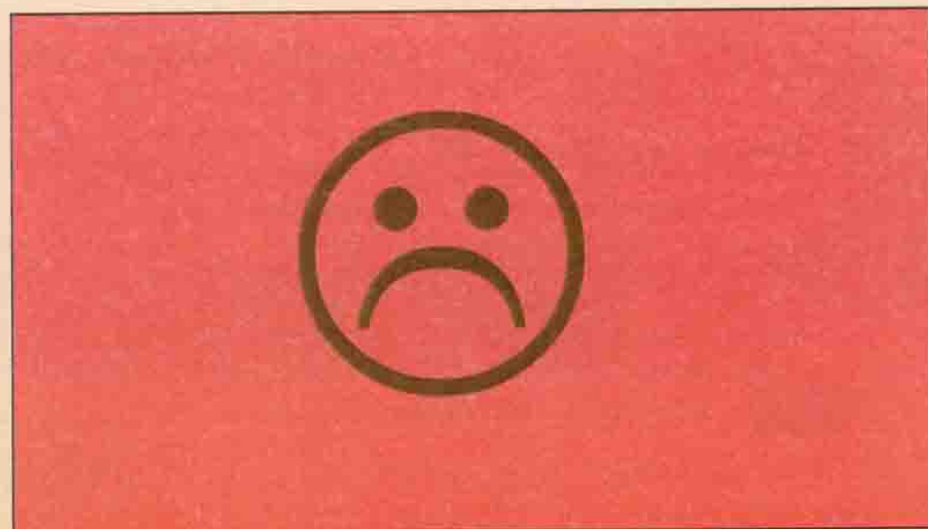
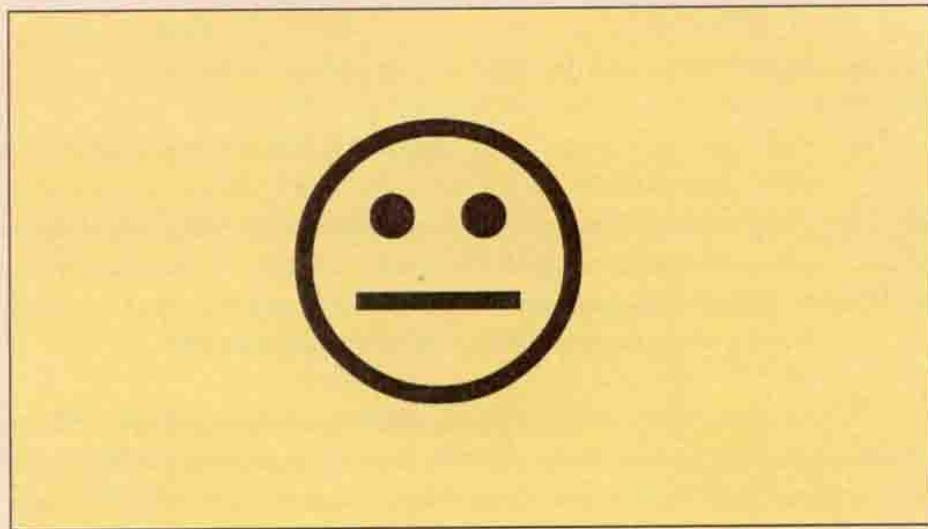
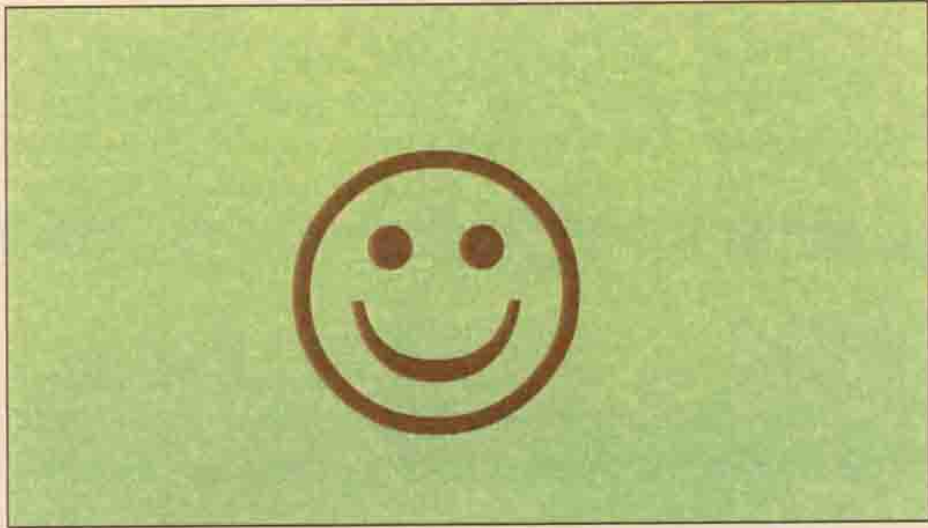


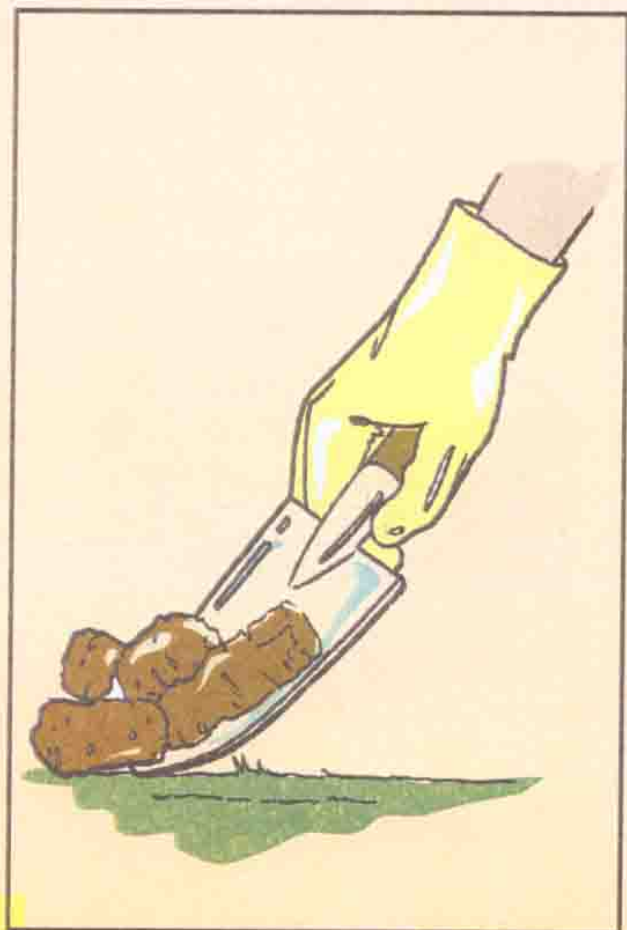
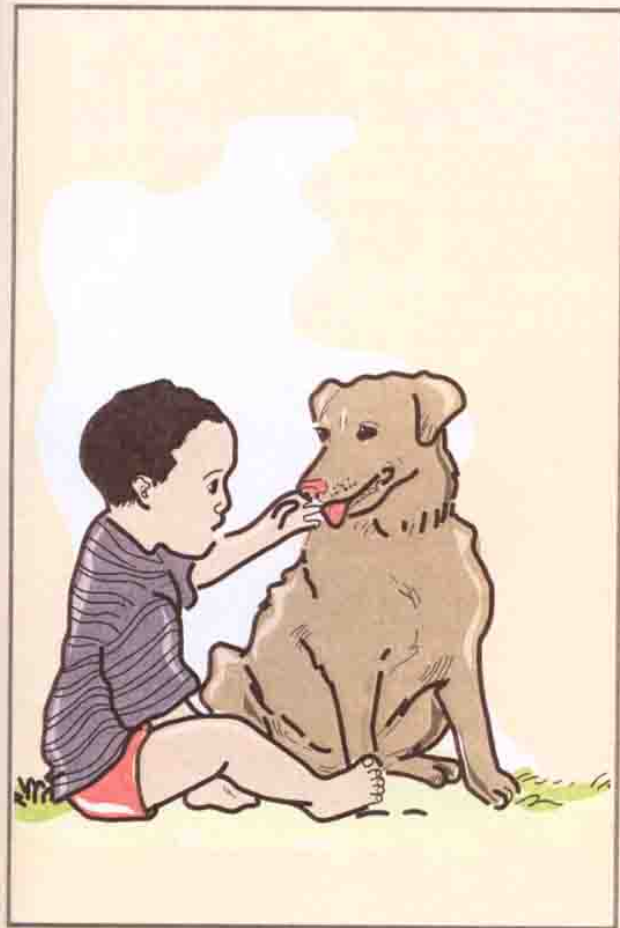
How will I assess what the children have learnt?

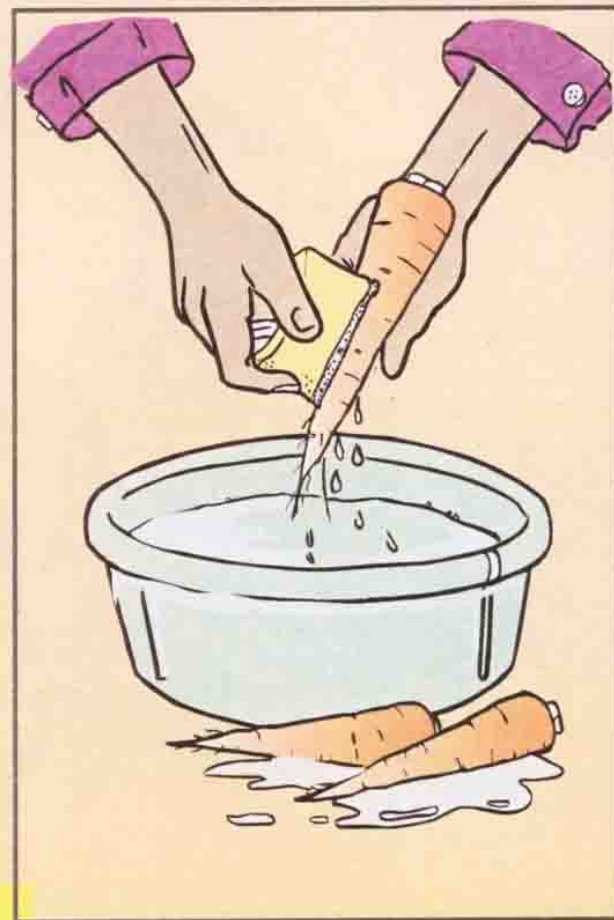
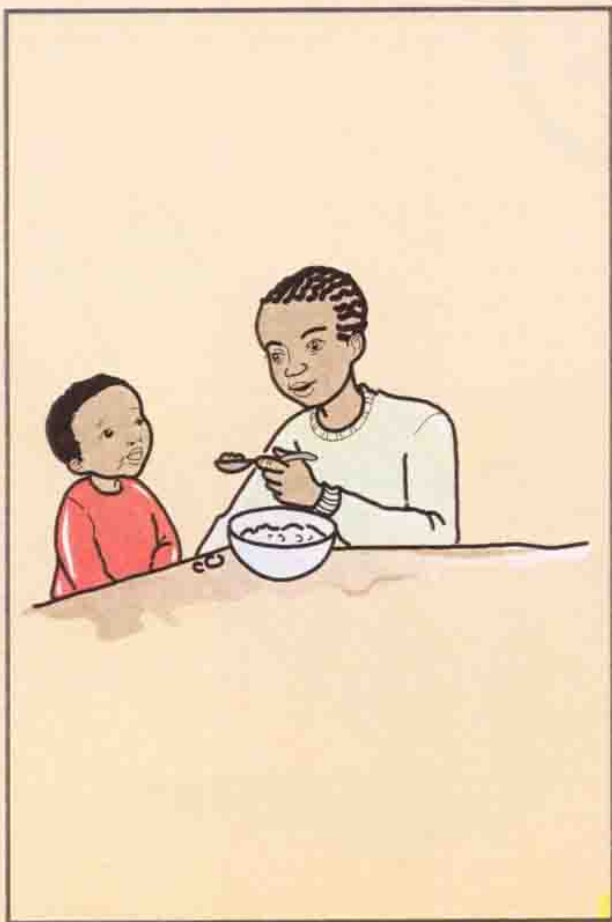
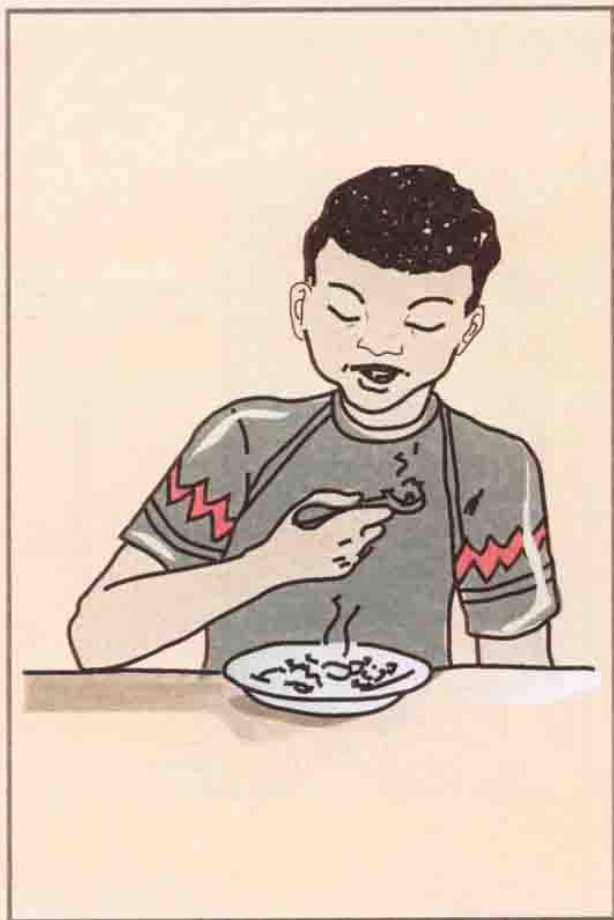
1. Based on your observations:	Most	Few
Did the learners co-operate and work together?		
Did all the learners participate?		
Could the learners give reasons for their choices?		

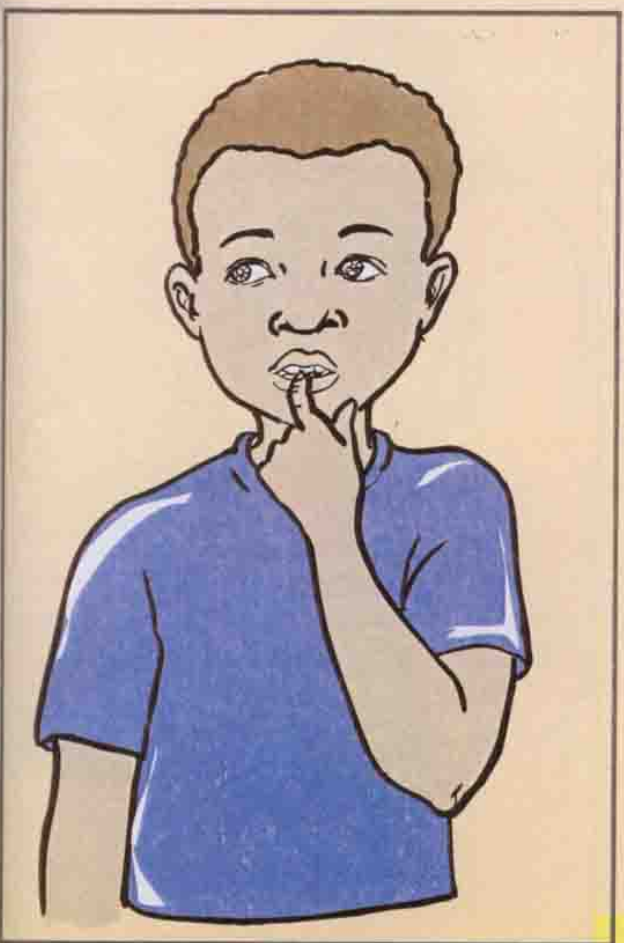
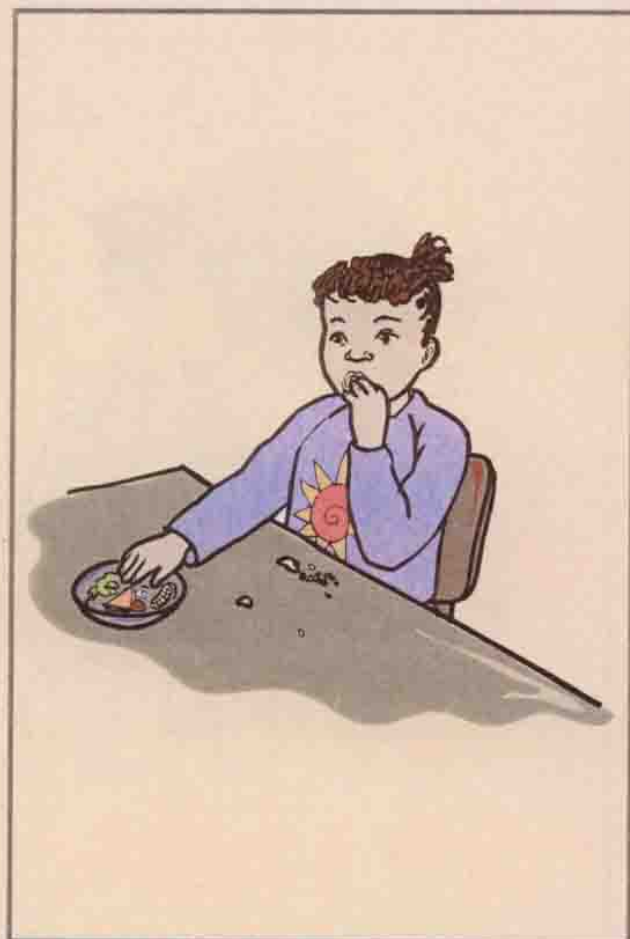
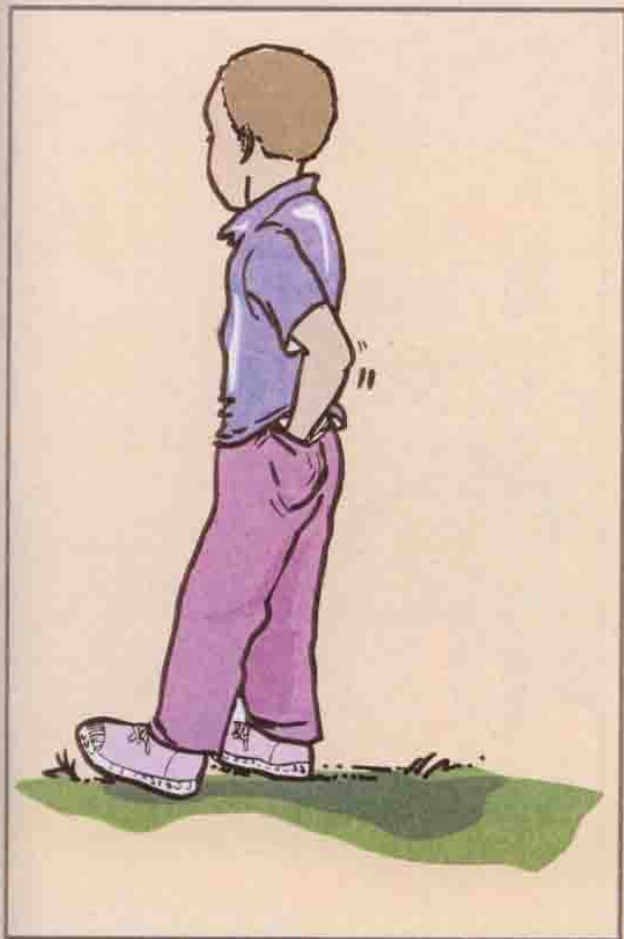
2. Make a list of those children who struggled with this unit for your file.
3. You can also hand out *Worksheets 26* and *27* for learners to complete on their own.

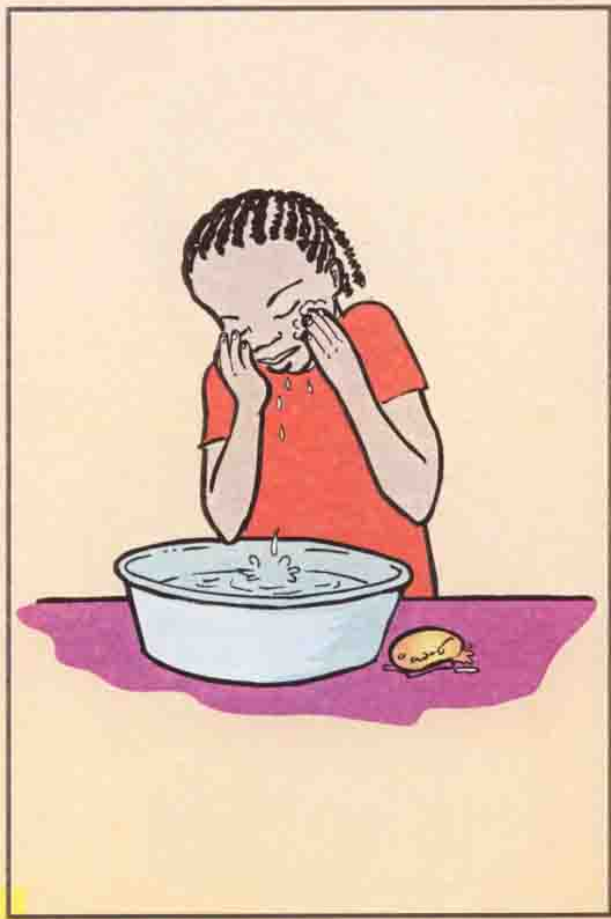
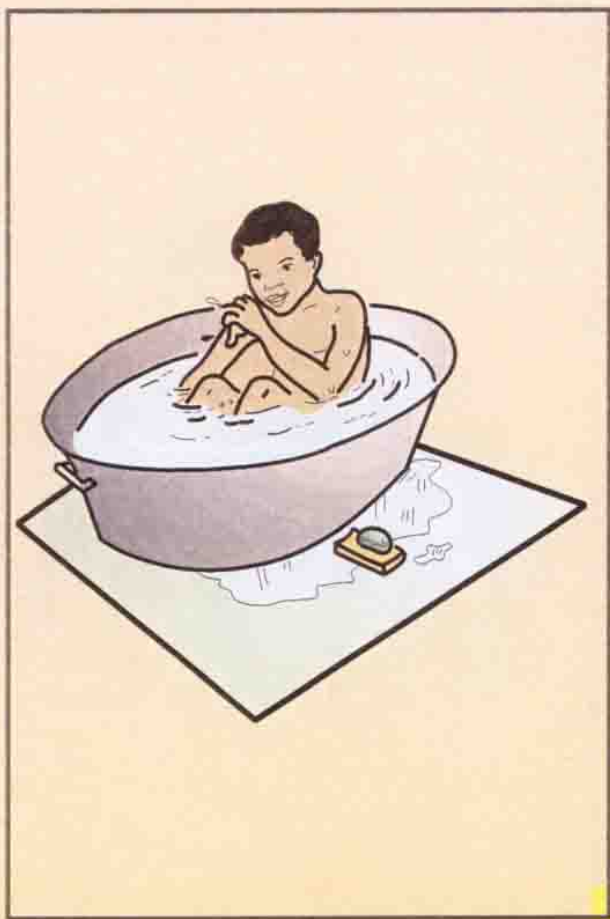
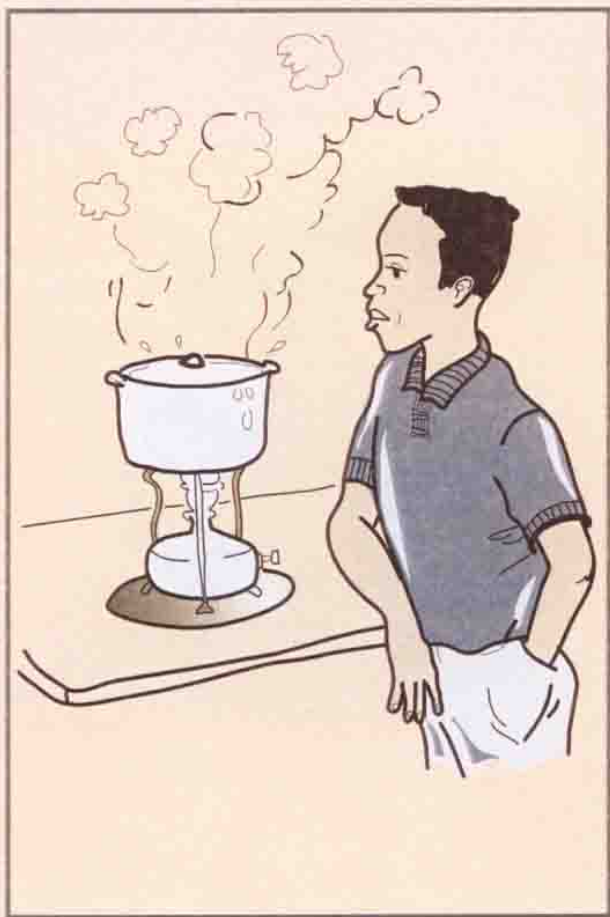
Voting cards

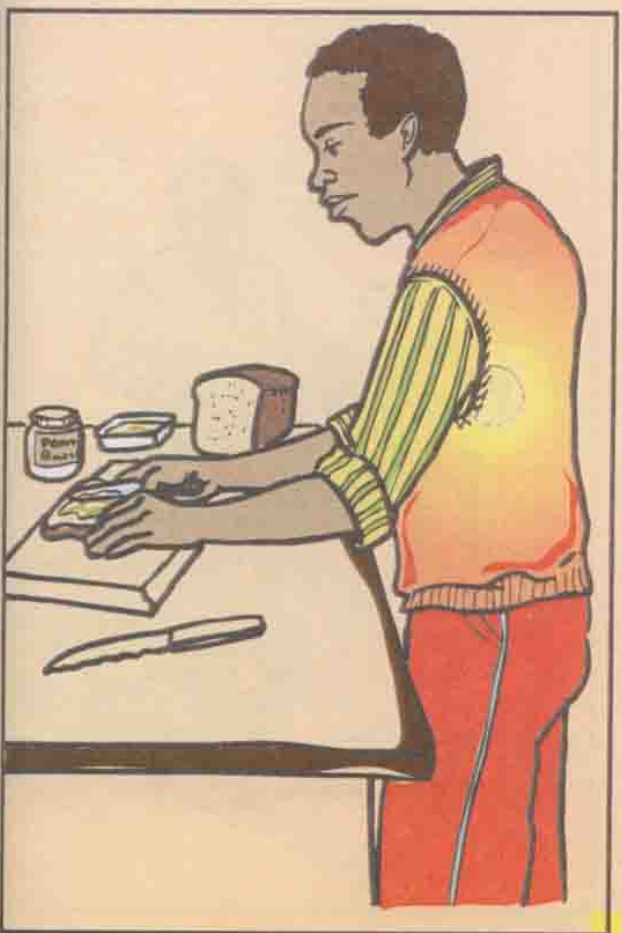
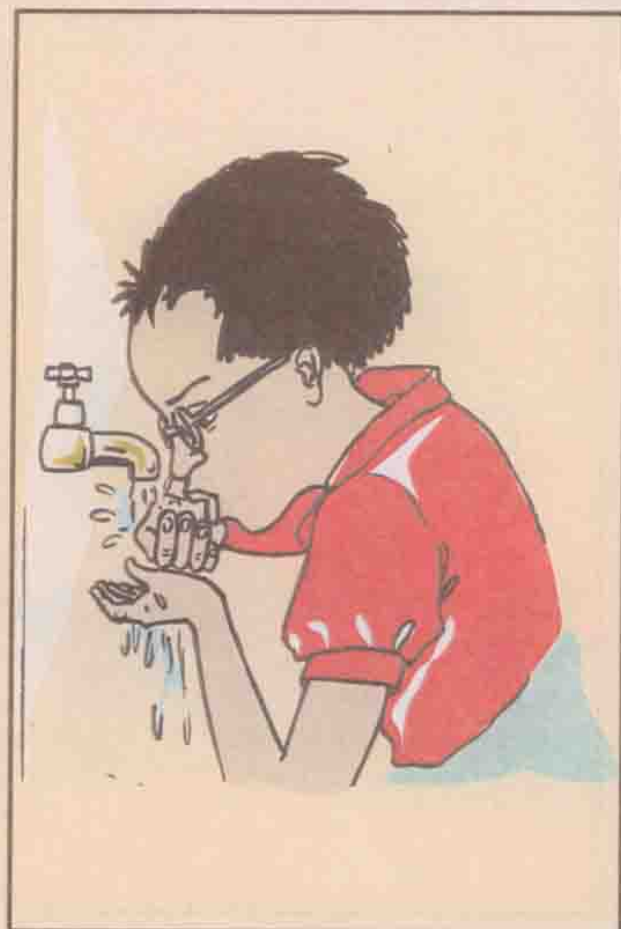
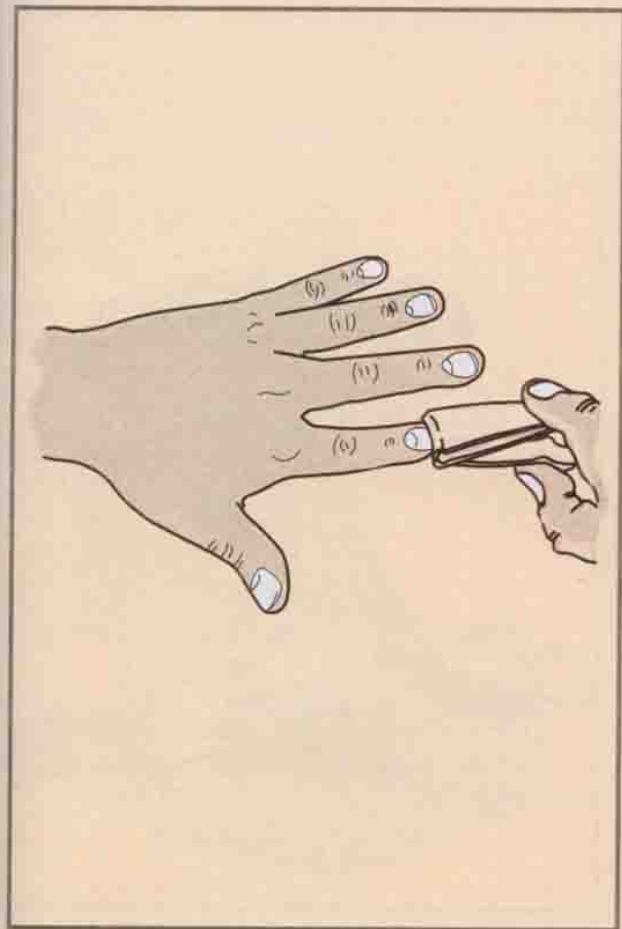






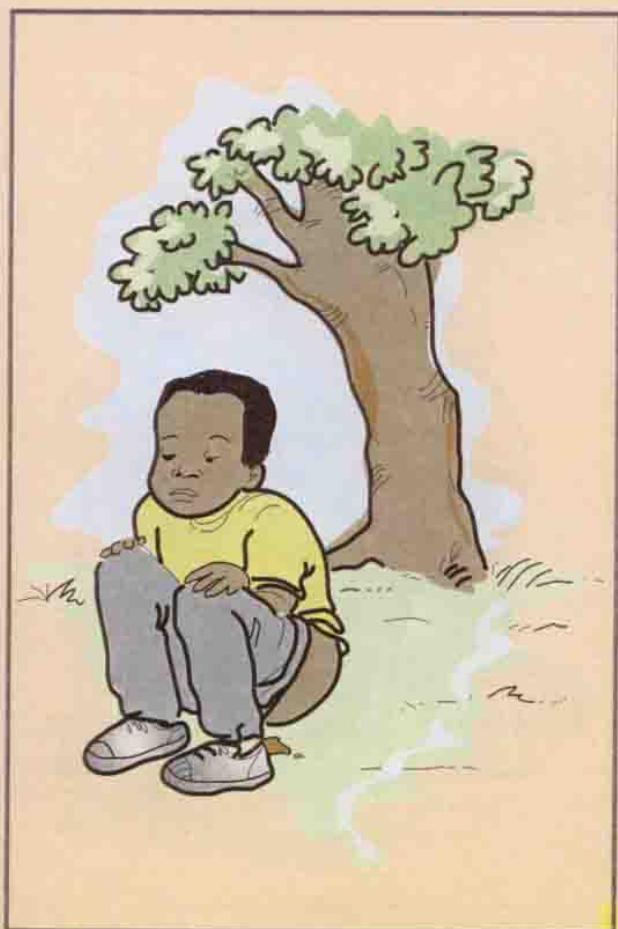
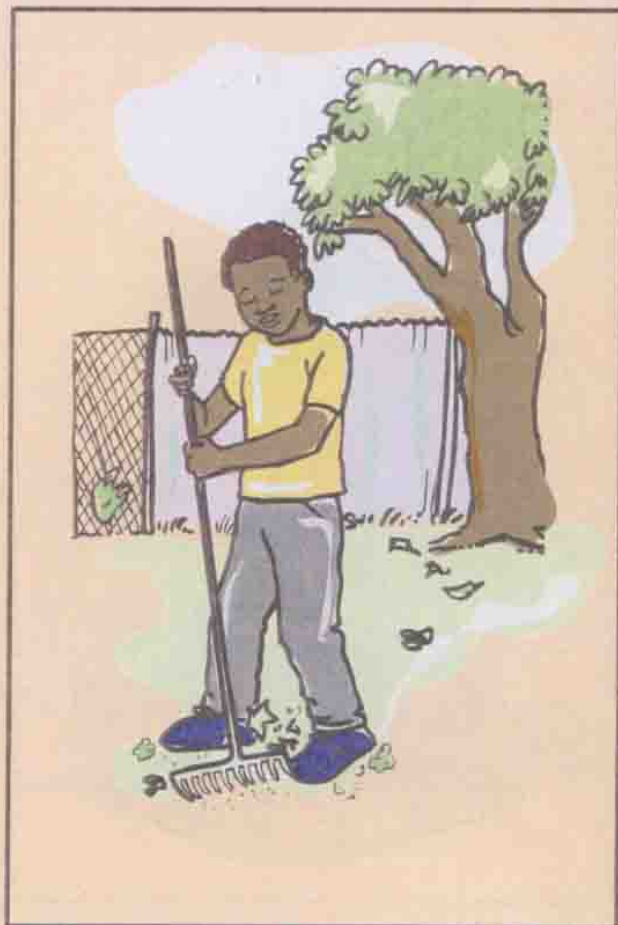














Unit 2 How do worms spread?

Ideas for further activities

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