

GERM BUSTERS!

This booklet is for your teacher

Yeah, make sure your teacher gets this

You're all washed up, Georgie.

No! No! Anything but the flush!



Queensland Government
Queensland Health

TEACHER CURRICULUM MATERIALS FOR LOWER PRIMARY

MORE INFORMATION

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Lower Primary Materials

Background Information

The Germ Busters – Lower Primary Unit is designed to provide practical ideas for teachers that assist in developing understandings about level 1 and 2 core learning outcomes from the Queensland Health and Physical Education Years 1-10 Syllabus (HPE syllabus). The Lower Primary Unit comprises a number of activities that contain enjoyable student-centred, learning experiences that also support the Germ Busters kit. The activities within this unit are designed to follow on from work undertaken with the lower primary students by the Year 7's as part of a peer education strategy.

The activities in this unit encourage students to:

- explore the understandings they have about germs;
- investigate different types of germs that exist in familiar places, such as around the home and at school;
- explore ways in which germs are spread and how to stop this;
- examine the role of germs in food spoilage and how food containing germs influences health.

Sequence of Learning Activities

The activities within this unit have been sequenced as follows:

Orientating activities:

Activity 1 – Lessons 1 and 2 conducted by the Year 7's as part of their peer education.

Enhancing activities:

Activity 2 - Spreading Germs

Activity 3 - Stopping the Spread of Germs

Activity 4 – Hygiene at Home

Activity 5 – Food and Germs

Synthesising activity:

Activity 6 - Personal actions to keep me healthy

The activities have been designed using an inquiry approach. Therefore it is recommended that students engage in the activities in the above sequence as the work undertaken by the Year 7's forms the orientating phase in the three-part inquiry process. The materials included in this resource develop and extend students understandings beyond the orientating phase and thus form the enhancing and synthesising phases of the inquiry approach.

An inquiry approach to Germ Busters

The Queensland School Curriculum Council Health and Physical Education syllabus advocates the use of inquiry approaches when providing students with opportunities to demonstrate core learning outcomes. Using an inquiry approach for the design of activities for students facilitates the student-centred nature of the experiences and encourages young people to take greater responsibility for their learning. An inquiry approach develops students investigative, problem solving and decision making skills. It encourages them to take action and to reflect on their action, and contributes to their ability to become lifelong learners.

There are many inquiry approaches, most of which contain the common elements of developing understandings and encouraging students to plan, take action and to reflect on the success or otherwise of their action by replanning or modifying their actions.

The Germ Busters Lower Primary Unit uses the orientating, enhancing and synthesising inquiry approach to guide students' learning:

- Orientating -brainstorming ideas, identifying or recognising issues, gathering information.
- Enhancing - challenging ideas, designing plans and strategies, making decisions and setting goals, researching or experimenting.
- Synthesising - justifying conclusions, reporting, discussing thinking, publishing, presenting, performing or formally reflecting.

Curriculum Links

The Germ Busters Lower Primary Unit is specifically designed to link to the Promoting the Health of Individuals and Communities strand of the Health and Physical Education Years 1 to 10 Syllabus (QSCC 1999). It is recommended that the Enhancing Personal Development strand is also consulted by teachers in order to identify opportunities for students to demonstrate core learning outcomes from this strand.

Strong links can be made between the study of germs and the Life and Living strand of the Science Years 1 to 10 Syllabus (QSCC 1999). Whilst links are not explored in these materials, teachers are strongly encouraged to consult the Science syllabus if they wish to extend students understandings about germs in a scientific context.

The Germ Busters Adult Support Resources provide additional curriculum links.

Activities within this unit have the potential to address the cross curricular priorities identified by the Queensland School Curriculum Council in the following ways:

- Literacy- Students develop their literacy skills as they read, write and speak about germs. They communicate ideas about germs through their posters, they talk about their own and others' behaviours and how they influence the spread of germs and they listen to others' views about the spread of germs.
- Numeracy – Students develop their numeracy skills as they choose and apply different mathematical concepts. They conduct audits of familiar environments and determine where more germs are likely to exist.
- Lifeskills – Students develop lifeskills when they take personal responsibility for their actions to stop the spread of germs and suggest ways and help others to do the same.
- Futures perspective – Students engage in a futures perspective when they predict how the presence of germs might influence food spoilage, when they talk about how the presence of germs can influence their health and when they suggest ways to stop the spread of germs.

An outcomes approach to the curriculum

An outcomes approach to learning and teaching is a philosophy that has been evolving in education circles for many years. Of significance in this approach is the emphasis on the outputs of an educational process rather than the inputs, and on holding students accountable for their own learning. According to the Queensland School Curriculum Council (1999) ‘an outcomes approach reflects the belief that there are key things that all students should learn and that they should be made explicit to those involved in the education process – students, teachers, parents/carers and members of the wider school community. By defining the end product of the education process it assumes that learning is progressive and that defined stages along a continuum of learning leading to the desired outcome can be identified’.

Outcomes are high quality demonstrations of significant student learning (Spady, 1994). They make explicit the key things that students should know and be able to do as a result of their engagement in the learning area. Given sufficient time and support, all students should be able to demonstrate the outcomes (Willis and Kissane, 1997).

The Germ Busters Lower Primary Unit identifies core learning outcomes which students will be given opportunities to demonstrate and in doing so models the use of an outcomes approach. Before students can be said to have demonstrated particular core learning outcomes, they must be provided with a range of opportunities to demonstrate the outcomes in multiple contexts. The Germ Busters Lower Primary Unit provides one such context.

Conceptual Sequences

Each of the core learning outcomes in the HPE syllabus is based on a key concept that is sequenced through each of the six levels. The six levels represent a continuum of learning for the 10 compulsory years of schooling. At each level students’ understandings of the concepts are developed such that their understanding becomes deeper, broader and more complex. The core learning outcomes that students will be given an opportunity to demonstrate in this unit are based on the following conceptual sequences:

Promoting the Health of Individuals and Communities

- Health is influenced by personal behaviours, social and cultural factors, and the actions that individuals and groups take to promote health.
- Health outcomes are influenced by the availability and effective use of health products, services and information.
- The interactions between people and their social, cultural and physical environments influence health.

These concepts are represented in this unit in core learning outcomes at level 1 and 2 . An analysis of the conceptual sequence is provided in ‘Identifying the know and do’ on the following page. Opportunities for students to demonstrate the same concepts at level 3 and 4 are offered in the upper primary unit.

Core learning outcomes

Core learning outcomes describe what students know and can do as a result of planned learning experiences (QSCC 1999). Within this unit students will be given opportunities to demonstrate the following core learning outcomes:

Promoting the Health of Individuals and Communities – Level 1

- 1.1** Students describe and demonstrate everyday actions that they can take in a range of situations to promote their health.
- 1.4** Students explain how health products and people in the community help them meet their health needs.
- 1.5** Students explain how elements of different environments, in which people live, work and play, affect health. (Queensland School Curriculum Council 1999a, p10)

Promoting the Health of Individuals and Communities – Level 2

- 2.1** Students describe and demonstrate actions they can take to promote the different dimensions of the health of themselves and others.
- 2.4** Students identify places where health products and services may be obtained and suggest reasons why people choose to use different health products and services.
- 2.5** Students recommend ways they can care for their environments to promote and protect their health. (Queensland School Curriculum Council 1999a, p11)

The syllabus requires that students be given multiple opportunities in a range of contexts to demonstrate the outcomes. Teachers are advised to consider contexts beyond the study of germs in which students can be given additional opportunities to demonstrate these same outcomes.

Identifying the ‘know’ and ‘do’

Core learning outcomes are statements of what students know and can do. Accordingly, each outcome can be broken down into a ‘knowing’ component and a ‘doing’ component. In general terms, the ‘know’ is developed through the conceptual sequences whilst the ‘do’ requires some action to be taken. Both the ‘know’ and ‘do’ are inextricably linked to the use of an inquiry approach.

It is useful for teachers to determine what it is that each core learning outcome is asking the students to ‘know’ and ‘do’ in the context of the particular unit they are teaching. Analysis of each core learning outcome reveals the following components:

Core learning outcomes 1.1 and 2.1

Note that core learning outcome 2.1 is based on the same conceptual sequence as core learning outcome 1.1 but develops and extends students' understandings. In this sequence students develop their understanding from a simple cause (behaviour) and effect (health outcome) relationship that focuses on physical health to one that incorporates health having a number of dimensions – physical, social, emotional, spiritual and mental. Students are required to expand their understandings about how their behaviours affect each dimension of their health. The context of outcome 2.1 also broadens to include others, thus recognising that an individual's behaviour can influence the health of others. This reflects a stage in child development whereby as students grow and develop they become less egocentric.

In core learning outcome 1.1 students could be expected to know:

- everyday actions they take to stop the spread of germs
- how these actions are different in different situations

In core learning outcome 1.1 what students could be expected to do includes:

- describe their everyday actions to stop the spread of germs
- demonstrate their everyday actions to stop the spread of germs

In core learning outcome 2.1 students could be expected to know:

- that there are different dimensions to health
- that personal behaviours related to the spread of germs can influence each of these dimensions in different ways
- that they can take action to influence the health of others

In core learning outcome 2.1 what students could be expected to do includes:

- describe how their actions stop the spread of germs to themselves and others
- describe the influence of these actions on the dimensions of their own health and that of others
- demonstrate actions to stop the spread of germs to themselves and others

Core learning outcome 1.4 and 2.4

At level one students are expected to understand that health products and services are available and to focus on their own needs and how they can be met. At level two the concept broadens to extend their understanding that health products and services can be obtained from particular people and places, and they are asked to consider the needs of others by recognising not only that people choose different health products and services but also that there are reasons why they make these choices.

In core learning outcome 1.4 students could be expected to know:

- the range of health products and services that they use to stop the spread of germs
- what their health needs are (what behaviours contribute to the spread of germs)
- how these health products and services stop the spread of germs

In core learning outcome 1.4 what students could be expected to do includes:

- tell others how health products and services they use stop the spread of germs

In core learning outcome 2.4 students could be expected to know:

- different places that health products and services can be obtained
- that people use different health products and services

In core learning outcome 2.4 what students could be expected to do includes:

- explain why people use some health products and services to stop the spread of germs and not others

Core learning outcome 1.5 and 2.5

In this conceptual sequence students at level one demonstrate their understanding that familiar physical environments can influence their health in different ways. In level two they are asked to extend this understanding by not only suggesting actions that could be taken within these environments to improve their health, but to make a decision about which one in particular they would recommend.

In core learning outcome 1.5 students could be expected to know:

- the different environments in which people live, work and play
- the different types of germs that exist in these environments

In core learning outcome 1.5 what students could be expected to do includes:

- describe how the germs in each environment influence health

In core learning outcome 2.5 students could be expected to know:

- different ways to care for the environment
- how caring for the environment influences health

In core learning outcome 2.5 what students could be expected to do includes:

- suggest ways to stop the spread of germs in their environment

For further unpacking and analysis of the outcomes refer to the Queensland School Council Sourcebook Guidelines.

Core Content

Each syllabus identifies core content that all students must be given opportunities to address during the compulsory years of schooling. These opportunities are provided when students engage with the core learning outcomes.

The Lower Primary Unit provides opportunities for students to address the following core content:

- Factors influencing health: individual and group actions and behaviours.
- Health-promoting behaviours of individuals and groups related to: physical, social, mental, emotional and spiritual wellbeing, and communicable illness and disease.
- Strategies to promote personal and community health.
- Behaviours that promote personal and group safety related to: personal hygiene.
- Issues related to the selection of health products, services and information: health needs of self and others.
- Health effects of human behaviours on social and physical environments including home, work and recreation: pollution.
- Creation and maintenance of environments that promote and protect health: role of individuals. (Queensland School Curriculum Council 1999a, p24)

The core content in the syllabus is not sequenced. Education Queensland teachers will also need to consult the Statements of Content which are an attempt to assist teachers understandings of the core content, to sequence the QSCC core content and to identify appropriate levels at which students should address content. The following elements of the Statement of Content are apparent in this unit:

- Attention to personal hygiene.
- Health care workers, including doctors, dentists, pharmacists and ambulance officers, help to meet children's health needs.
- Families make decisions about health care products such as toothpaste, medicines.
- Immunising large groups of the population substantially reduces the risk of transmitting infectious diseases.
- Individuals and groups in the community can gain access to health services, such as school dental health clinics. Cost, availability, personal beliefs and advertising all influence a person's choice of health products and services. (delete those not appropriate to this unit)
- Disposing of rubbish responsibly helps care for the environment and also helps prevent the spread of illness and disease. (Health and Physical Education Years 1 – 10 Statements of Content for Education Queensland Schools, 1999, p14-15)

Making Judgments about Demonstration of Core Learning Outcomes

Assessment within an outcomes framework focuses on teacher judgment of student demonstration of core learning outcomes. Teachers, students and members of the school community must develop shared understandings about what it is that students are expected to know and do as a result of their engagement with core learning outcomes.

Teachers plan to give students multiple opportunities in a range of contexts to demonstrate the core learning outcomes. This will require planning to cater for different learning styles and supporting this with a range of assessment instruments. Techniques for gathering information could include observation, consultation or focused analysis of written, oral or practical work. Importantly, this information can be gathered continuously over an extended period of time.

The analysis of the outcomes into the 'know' and 'do' is useful when making decisions about whether the students have demonstrated the core learning outcomes. By analysing the outcomes according to their 'know' and 'do' components, teachers are essentially extracting 'criteria' which guide their planning and assessing. These 'criteria' can be made explicit to students and the broader school community. For example, the 'criteria' associated with core learning outcome 1.1 could be turned into questions to assist in making judgments. The questions that you might ask include:

- Can the student describe the everyday actions they take to stop the spread of germs?
- Can the student demonstrate the everyday actions they take to stop the spread of germs?

In many instances by demonstrating the 'do' component of the outcome the student is implicitly demonstrating their understanding of the 'know'.

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Enhancing phase

Spreading germs

Focus

The focus of this activity is to assist students as they identify their current knowledge about germs and identify how germs can be spread.

Teaching considerations

It is important in this activity to ensure that all students understand what is meant by the term 'germ'. While it is acknowledged that not all germs are bad for us, the focus of this activity is the spread of germs that can make us sick.

Students need to understand the ways in which germs can be spread, namely:

- coughing, sneezing, spitting on other people;
- not washing hands after going to the toilet, before eating, after playing with dirt or sand and after playing with pets;
- coming into contact with other people's body fluids such as blood and saliva;
- blowing your nose on a tissue and leaving the tissue lying around for someone else to pick up;
- eating food that has not been stored properly (cold food needs to be kept cold and hot food needs to be kept hot);
- sharing food, drinks and utensils with other people.

Materials

For this activity you will need:

- photographs or magazine pictures of places or things in the home that could have germs (toilet, kitchen, garden, pets)
- a copy of worksheet 2.1 for each student

Learning experiences

Ask students what they think germs are. Establish a shared understanding about what germs are. Give students a definition of germs that is appropriate for them.

Tell students that some germs can make us sick. Ask students to brainstorm how they think germs can make them sick.

Show the class pictures of places or things around the home that could have germs that make people sick. Ask students to think of how germs could be spread in each picture/example.

Generate a list of suggestions on the board.

Tell students that there are also places and things around the school where we could come in contact with germs that would make us sick. Take students on a walk around the school asking them to identify places or things that could have germs.

Back in the classroom generate a list of places or things children identified as having germs.

Revise with students ways in which germs can be spread.

Hand out a copy of worksheet 2.1 to each student and explain what they have to do.

Gathering information about student learning

Information about students' learning can be gathered from:

- students' discussions of the pictures/photographs;
- students' worksheets;
- discussions with individual students about their pictures on the worksheet.



Cloze Activity

Find the missing words.

pet blood sneezes sick toilet

1. You can get sick if someone who is sick

_____ on you.

2. You must always wash your hands after going to the

3. After playing with your _____ wash your hands.

4. You should never touch someone else's _____

5. Germs can make you _____

Write YES or NO.

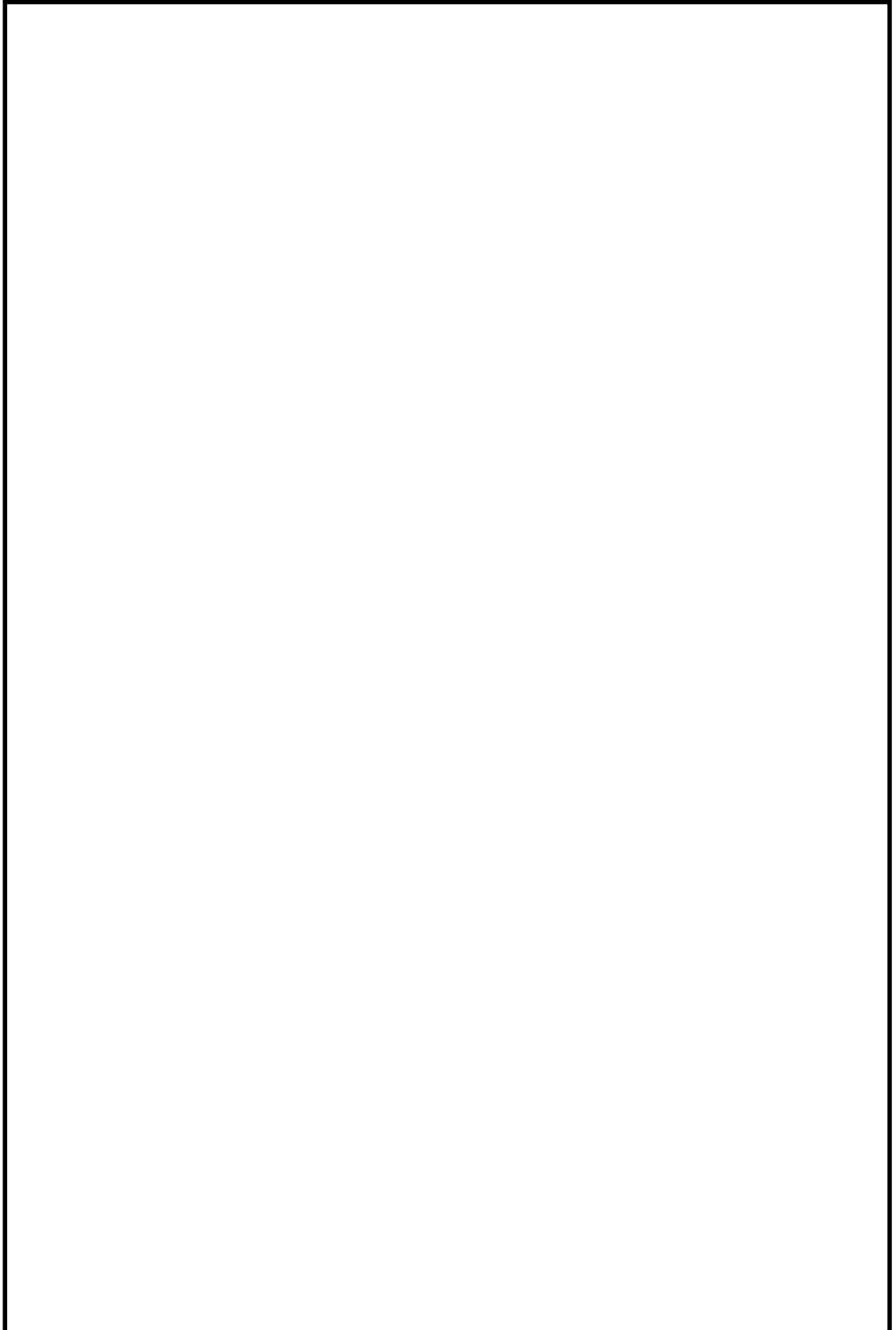
You should cover your mouth when you cough. _____

You can leave dirty tissues on the table. _____

Wash your hands after playing in the sandpit. _____



Draw a picture of one way you can get germs



Enhancing Phase

Stopping the Spread of Germs

Focus

The focus of this activity is to develop further students' understandings of how germs are spread and the sorts of personal behaviours that may stop the spread of germs.

Teaching considerations

It is important that students have an appreciation of the vast numbers of germs around them and how easily they are spread. Help students recognise that they can do certain things in their own personal behaviours to help prevent the spread of germs. They should be discouraged from being overly anxious and worried about germs. Explain that many of the tiny living things around them which are too small to be seen with the naked eye are good for them.

Materials

For this activity you will need:

- a "Lets Pretend" task card outlining a dramatic improvisation - for each group
- a copy of worksheet 3.1 - for each student

Learning experiences

Discuss with students what they learnt from the previous activity. They should be aware that:

- germs are all around us, in the air and on things we touch.
- when some germs get into our body we get sick.
- germs are spread in a lot of different ways.

Tell students that they are going to play a game to find out how we can stop the spread of germs. Organise the class in small groups of 4 – 5. Explain that each group is going to act out something to do with germs. The rest of the class is going to guess what the actors are doing and how that behaviour is spreading germs. Distribute a "Let's Pretend" task card to each group and explain what each group has to do.

Help students by modeling patting a dog and then sitting down and starting to eat. Ask the class to identify what you did. Then act out what should have been done in this situation to stop the spread of the germs.

Give each group time to work out what they are going to act out to the class. Every student in the group should have the opportunity to be involved in acting out the "Let's Pretend" task.

After each group has acted out their "Let's Pretend" the class then discusses what the actors were doing, how the action leads to the spread of germs and what could be done to prevent the spread of germs.

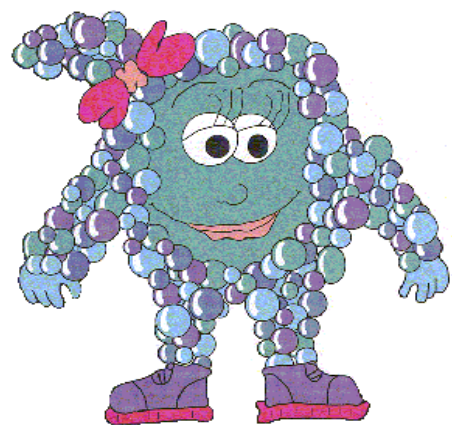
When all the group presentations are completed, summarise the scenarios on the board. A word map could be used to illustrate ways we might individually stop the spread of germs. Emphasise to the students that these are all things which they can do themselves – they do not need a grown-up to help them.

Distribute a copy of the worksheet 3.1 to every student. Remind the students what they have seen today by going through each group’s “Let’s Pretend” in turn. Each student summarises one ‘Let’s pretend’ on the worksheet — it does not have to be the one they were involved in acting out.

Gathering information about student learning.

Information about students’ learning can be gathered from:

- students’ contributions to the introductory class discussion;
- students’ responses to the acting and their interpretation of the task;
- students’ completed worksheets.



Let's Pretend

Pretend that you have a very bad cold and you are sneezing all over everyone else. You do not use a tissue or your hand!

Let's Pretend

**Pretend that you pat your dog or cat and then sit down straight away to eat something
WITHOUT WASHING YOUR HANDS!**

Let's Pretend

Pretend that you have a very bad cold and you wipe your nose with the back of your hand and sniff VERY loudly!

Let's Pretend

Pretend that you have just been to the toilet and now you are going to eat something without washing your hands.



TASK CARDS
ACTIVITY 3

Let's Pretend
Pretend that you have an icecream and share it with a friend.

Let's Pretend
Pretend that you fall over and cut your knee badly so that it is bleeding. You do not put a bandaid on it or clean it up.

Let's Pretend
Pretend that you have something in your throat. Pretend to spit it out on the floor.

Germs can be spread by

We can STOP the spread of germs by

Enhancing phase

Hygiene in the home

Focus

The focus of this activity is to consider products commonly found in the home that help keep the home clean and stop the spread of germs.

Teaching considerations

Many advertisements on the television and in magazines are for cleaning products. These advertisements can be used as stimulus materials in this activity. Make a collection of magazines or students could be asked to bring magazines from home.

Make sure that the bottles and containers used in this activity are absolutely empty so that contents cannot be spilled on the students.

Safety

Students should be made aware of the dangerous nature of many of the products considered in this activity. These products should not be ingested and kept clear of eyes.

It is important that students realise that many products have been developed to kill germs and so stop them spreading. Although the focus of this activity is about products which are found in the home, the same or similar products are used in many different environments, including schools and shops. Students should also begin to realise that cleaning products have only short-term effects and that regular cleaning using these products is necessary if hygiene is to be maintained.

Materials

For this activity you will need:

- Magazines, scissors, glue
- 4 large pieces of cardboard
- For each group:
 - Tissues and handkerchiefs
 - Empty flyspray container
 - Empty mosquito killer container
 - Empty bleach bottle
 - Empty soap packet
 - Empty bandaid packet
 - Empty garbage bin liner
 - Empty domestic cleaning product
 - Cling wrap
- a copy of worksheet 4.1 for each student



Learning experiences

Distribute to each student a magazine, scissors, glue and cardboard. Ask the students to look through the magazine provided and identify any products that they think could be used to stop the spread of germs. Have the students cut out these pictures.

The students should gather a wide variety of different types of products. Discuss with the students how the products shown in the pictures may be grouped. For example the students may wish to group the pictures according to:

- Where they are more likely to be found – kitchen, bathroom, laundry,
- What they are used for – washing clothes, washing dishes, washing hands, washing floors,

Once a grouping has been agreed to, write the heading for the groupings on a large piece of cardboard, Students then organise their pictures according to the categories and glue them on the cardboard. Students are then asked to justify their decisions about: the choice of product and the decision about the way the products are grouped.

Discuss with students the various groups that have been created and how they will be used for the next part of the activity.

Organise the class into small groups of 4 – 5. Distribute a set of the items from the materials list to each group. Ask the students to work as a group to place these objects into the groupings previously identified. Any products that do not fit into the identified groupings should be set-aside for the moment. Encourage the students to read the labels and see if they can find any reference to ‘germs’ or ‘bacteria’.

Once all the items have been sorted any items not placed in identified groups should be discussed. Questions to ask students include:

- Do these products help stop the spread of germs?
- Why and how do they stop the spread of germs?
- Can another/additional grouping be suggested?



Sum the lesson up by discussing the items which students are allowed to touch and use. Some students will probably be allowed to use aerosol cans. Ensure that the correct technique for using an aerosol can is demonstrated. (Nozzle in line with the red mark and nozzle and red mark pointed away from anyone.)

An additional task may be to survey the home to discover what products are used to stop the spread of germs. A worksheet similar to 4.1 may be useful.

Gathering information about student learning.

Information about students’ learning can be gained from:

- students’ contributions to class discussions about the classification of the pictures;
- students’ justification for including/excluding items in their groupings;
- students completed home audits.

Germ Prevention Products Found in My House

| Product Name | Where found | Use of product | How does it stop germs |
|--------------|-------------|----------------|------------------------------------|
| Plastic wrap | Kitchen | Cover food | Keeps germs from getting into food |
| | | | |
| | | | |
| | | | |

Enhancing Phase

Food and Germs

Focus

The focus of this activity is on students gaining an understanding of how germs may affect food products that have been left 'outside' for a period of time.

Teaching considerations

This activity encourages students to explore the ideas that germs enter food that is left in the open, or is stored incorrectly, and the food goes bad. Eating this food would cause us to become sick. From these understandings, the students can begin to appreciate the importance of refrigeration, as well as covering, sealing and storing food correctly. They focus on the personal actions that they can take to ensure that foods they eat are kept as free from germs as possible. Students begin to understand the consequences of their actions, for example — if they do not put away the milk. It is important to continually emphasise the connections back to the student's own behaviours. Do they leave the milk out after breakfast? Do they eat half their yoghurt at morning tea and the other half at lunch? The students should begin to recognise the situations where there is the potential for germs to infect the food they eat. The students should also start to take responsibility for their behaviours rather than see these actions as someone else's responsibilities.

Although the aim is to encourage students to be aware of germs, it is not appropriate to make them overly anxious or worried about germs. The students must be encouraged to understand the benefits of organisms that cause decomposition (without them the Earth would be covered by layer upon layer of dead things) and not simply believe that all microscopic organisms are bad for us.

Students should not handle the decaying food nor get so close as to breathe in fungal spores.

Encourage students to wash their hands after observing the food samples

The teacher should dispose of the food at the end of the investigation.

For those students who are in prewriting, the teacher may need to sit with the child and have them explain their drawings or attempts at writing.

Materials

For this activity you will need:

- shallow clear plastic dishes or saucers and cling wrap so that the food can be seen from the top as well as from underneath
- the food items to be investigated decided after negotiation with the class
- worksheet 5.1 for each student

Learning experiences

Ask the students what experiences they have of foods going 'bad'. They may have seen mouldy bread or curdled milk. Develop a word concept map on the board as the students describe characteristics of the food such as the smell, look, feel, colour or texture. Discuss with students the link between looking at foods going bad and learning about germs.

Explain to the students that they are going to investigate what happens to foods that are left outside for a week. Talk to the students about which foods they would like to use for this investigation. Encourage the students to consider samples from a range of food types such as:

- bread
- raw meat
- cooked meat
- fruit
- vegetables
- pasta or grain
- cheese

Organise for the food samples to be brought in by the students.

Planning the investigation.

- As a class students describe and record the characteristics of each food sample. The records could be placed on large charts around the room.
- Discuss with the students how the foods will be set out.
- Suggest to the students that the food sample could be covered with cling wrap to see whether this makes a difference or not.
- Discuss how and where the foods might be set out to protect them from animals (birds, possums, cockroaches, ants).
- Decide on a good location that is safe from other children.
- Place the foods in the agreed position.
- Examine the food samples the next day. Compare their characteristics with those recorded the previous day. Discuss any changes that have occurred.
- Repeat this for the next five days.
- At the end of the week, draw up a table on the board and with the students' assistance fill in a contrast of what the food was like to begin with and what it is like now. If possible bring in fresh samples of the foods to remind the children of what they started out looking like. Discuss the changes that have occurred.

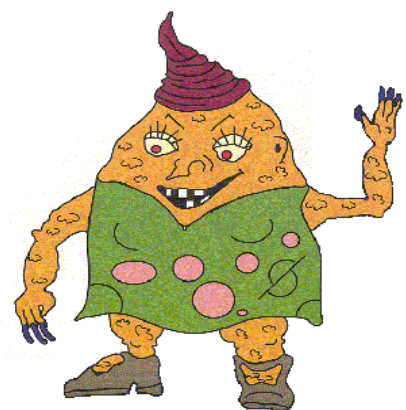
Have the students discuss the investigation and record a summary in their books using worksheet 5.1.

- Which foods went ‘bad’? Ask the students to choose two food items that went really bad (‘yucky’) and draw or describe one in each box.
- Why did the foods go bad?
- Why is it important to stop foods from going bad?
- What could they do to stop foods going bad?

Gathering information about students learning

Information about students’ learning can be gathered from:

- students’ contributions to discussions of personal actions they would take to keep the food they eat free from germs;
- students’ completed worksheet 5.1;
- students’ explanations.



WORKSHEET 5.1

In each box draw and describe food that went bad

| | |
|--|--|
| | |
|--|--|

Foods that are left outside go 'bad'

because of _____.

Foods that are bad make us feel _____

because of the germs in them.

I can stop foods from going bad

by: _____

Synthesising Phase

Personal actions to keep me healthy

Focus

This activity is designed to allow students to demonstrate their understanding of actions required to minimise the spread of germs. Students should be encouraged to present their ideas in a variety of ways.

Teaching considerations

Students should have experience working in groups. They should have knowledge of how to present their ideas in a variety of ways, for example, an oral presentation, role play or poster. One student in each pair should be a capable reader.

Materials

For this activity you will need:

- the “scenario cards” (one for each pair)
- paper for students to draw posters
- pens and pencils for drawing posters
- writing paper, pencils and rubbers
- worksheet 6.1

Learning experiences

Revise the content from previous lessons with students.

Divide the class into pairs so that one of each pair is a capable reader and tell the class that each pair will show the class one way of preventing the spread of germs. Distribute one scenario card to each pair. They read their scenario card and discuss ways to keep themselves safe from germs. They prepare and present their ideas as an oral presentation, role play or poster.

Discuss each pair’s scenario and presentation with the class. Ask students to identify how the germs were being spread in each situation and what is being done to prevent the spread of germs. Ask them to suggest other ways of preventing the spread of germs in each situation.

Thank the pairs for their presentations.

Tell the students that they are now going to draw and write about what they have learned about germs. Hand out worksheet 6.1 and discuss what the students have to do.

Students complete worksheet 6.1. The worksheets could then be collected and placed in the student portfolios.

Gathering information about student learning

Information about students' learning can be gathered from:

- students' contribution to their group discussions;
- students' input into group presentations;
- students' answers given to questions about the scenarios;
- students' completed worksheets.



Scenario cards

| | | |
|---|---|--|
| You have a cold. | You are just about to eat lunch. | You are going to help with some cooking. |
| You have been to the toilet. | You have a bad cough. | You have been playing in the sandpit. |
| You cut your finger. | Your friend offers you some of his drink. | You pick up some rubbish in the playground. |
| You forgot to drink your milk at Little Lunch and your friend tells you to drink it at Big Lunch. | Your friend has fallen over and her knee is bleeding. | You find some food on the kitchen bench and you are not sure if it is OK to eat. |
| You have been patting your dog and now it is dinner time. | You have been digging in the garden. | You drop your sandwich on the ground. |



WORKSHEET 6.1

A picture of something I have learned about
germs

A story about some things I can do to stop
germs spreading