

**Yellow Dot Series**  
**Life Skills - Grade 5**  
**Personal and Social Well-being**

**Term 3**

Module 9  
**Festivals and Customs from Various Religions (Week 1-3)**

Module 10  
**Safety Measures at Home & in the Environment (Week 4-5)**

Module 11  
**Water Conservation and Appreciation (Week 6-7)**

Module 12  
**Healthy Eating for Children (Week 9-10)**

Formal Assessment  
Project (Week 8-9) Information Booklet

**Term 4**

Module 13  
**Locally Occurring Health Problems (Week 1-4)**

Module 14  
**HIV and Aids Education (Week 5-6)**

Module 15  
**Substance Abuse (Week 7-8)**

Formal Assessment  
Examination (Week 9-10)

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## Module 9: Religious Festivals and Customs

### Introduction

A **festival** is a special occasion of feasting or celebration, sometimes with a religious focus. A festival can take the form of a party or a ritual and it can be a few hours long or it can last for days.

Different festivals have different purposes and, quite often, there are specific customs and procedures that occur at the festivals. Not all festivals have a religious purpose. Some festivals celebrate a good harvest and some celebrate a special accomplishment (e.g. graduating from university). Birthday parties and Valentine's Day celebrations are examples of non-religious festivals.



Cook Islands drum dance



Chinese dragon dance



Cuban wedding ceremony

A **religious festival** is a time of special importance marked by followers of that religion. Religious festivals are usually celebrated **annually**<sup>1</sup> according to a calendar year or **lunar**<sup>2</sup> calendar.

A **custom** is a specific and traditional way of doing something. Many different **practices**<sup>3</sup> make up religious customs. These include how babies are named, how children become adults, how people get married or engaged and how people get buried or remembered after they die.

<sup>1</sup> **Annually** (Say: An you allee) – Once a year

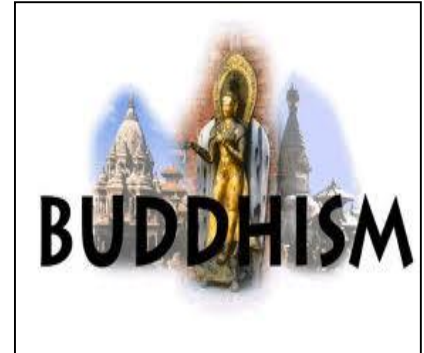
<sup>2</sup> **Lunar** (Say: Loo nah) – Refers to the moon. Some calendars are based on the phases of the moon. The calendar we use is based on the movement of the Earth around the Sun – this is called a solar calendar. For more information visit: <http://classroom.synonym.com/difference-between-lunar-calendar-solar-calendar-22648.html>

<sup>3</sup> **Practices** (Say: prak tis iz) – Ways of doing things

## Unit 9.1 - Buddhism

### What is Buddhism?

About 2500 years ago, a prince named *Siddhartha Gautama* began to question his **sheltered**<sup>1</sup>, **luxurious**<sup>2</sup> life in the palace. He left the palace and saw four sights: a sick man, an old man, a dead man and a monk. These sights are said to have shown him that even a prince cannot escape illness, suffering and death. The sight of the monk told Siddhartha to leave his life as a prince and become a wandering **holy**<sup>3</sup> man, seeking the answers to questions like "Why must people suffer?" "What is the cause of suffering?"



Siddhartha spent many years praying, **meditating**<sup>4</sup>, and **fasting**<sup>5</sup> until he finally understood the **basic**<sup>6</sup> truths of life. He gained **enlightenment**<sup>7</sup>, or *nirvana*, and was given the title of Buddha, which means Enlightened One.

Buddha taught people to take responsibility for their own lives and actions. He taught that the Middle Way was the way to nirvana (enlightenment). The Middle Way meant not leading a life of luxury and **indulgence**<sup>8</sup> but also not one of too much fasting and hardship.



According to the Buddha, people should not make customs and religious practices more important than spiritual development or mental **purity**<sup>9</sup>. Furthermore, customs and religious practices must be harmless to oneself and to all other living creatures.

### Buddhist Religious Celebrations

1 **Sheltered** (Say: shall terd) – Protected

2 **Luxurious** (Say: lug zjer ee us) – very comfortable and elegant and usually very expensive

3 **Holy** (Say: ho lee) – religious

4 **Meditating** (Say: med it ate teeng) – being in a state of deep peace that occurs when the mind is calm and silent.

5 **Fasting** (Say: fahs teeng) – not eating

6 **Basic** (Say: bay sick) – simple

7 **Enlightenment** (Say: en lie tin mint) – knowledge or understanding

8 **Indulgence** (Say: in dull gins) – getting everything one wants

9 **Purity** (Say: pyir itee) – without fault or sin

**Wesak (Vesak)** is the celebration of Buddha's birth. For Buddhists, it is also the celebration of Buddha's enlightenment and death. During this celebration, statues of Buddha are decorated.



### **Buddhist Religious Customs**

Buddhists often burn incense and candles, ring small bells and place flowers in their homes. These practices help them to meditate. **Meditation** is a state of deep peace that occurs when the mind is calm and silent.

Buddhists sometimes fly prayer flags. They believe that when the wind makes the flag flap, it is carrying blessings to other parts of the world.

## Unit 9.2 - Christianity

### **What is Christianity?**

Christianity started with the birth of Jesus of Nazareth (Jesus Christ), his religious teaching as an adult, his death and his **resurrection**<sup>1</sup>. Over 2000 years ago in Palestine (today's Israel), Jesus was born into a humble Jewish family. His mother was a young woman named Mary. Christians believe that his father was the Holy Spirit of God, making Jesus both fully human and fully **divine**<sup>2</sup>.



Jesus lived and experienced the suffering of humans. During his adult **ministry**<sup>3</sup>, Jesus built up a **loyal**<sup>4</sup> following, led by his twelve **disciples**<sup>5</sup>. But, Jesus also made enemies among the religious and political leaders of his time. In the end, these powerful leaders were so threatened by the number of people that believed what Jesus had to say that they sentenced

<sup>1</sup> **Resurrection** (Say: reh zur eck shin) – being brought back to life

<sup>2</sup> **Divine** (Say: dee vine) – like a god

<sup>3</sup> **Ministry** (Say: min a stree) – the work of a minister or religious leader

<sup>4</sup> **Loyal** (Say: loi yill) – showing support for something or someone

<sup>5</sup> **Disciples** (Say: dee sigh pills) – followers or students of a religious or important leader

him to death. The third day after Jesus' death, his followers found his grave empty and believed that he had been raised from the dead.

### Christian Religious Celebrations

Christian celebrations and festivals centre on important dates in Jesus' life. Two of the more important ones are:

**Christmas:** Jesus' birth - often celebrated with **nativity**<sup>1</sup> scenes, stories, and **pageants**<sup>2</sup> telling the story of Jesus' **humble**<sup>3</sup> birth in a stable surrounded by animals.



**Easter:** Jesus' resurrection from the dead. Eggs are an important symbol of Easter since they symbolize new life. Crosses are often covered with flowers to symbolize Jesus' victory over death.

### Christian Customs

**Baptism:** This is a Christian custom in which water is sprinkled on the head of a baby to **signify**<sup>4</sup> the washing away of sin and the start of a life in Christianity. Many Christians wear a cross around their necks as a sign and reminder of their faith.



Some Christians celebrate **Holy Communion** – this is a ceremony in which church members drink wine and eat bread to remind them that Jesus sacrificed his blood and body so that they might have their sins forgiven and have **eternal**<sup>5</sup> life.

<sup>1</sup> **Nativity** (Say: nah tih vih tee) – the occasion of a birth

<sup>2</sup> **Pageants** (Say: pa jints) – a parade or procession

<sup>3</sup> **Humble** (Say: hum bill) – not having a lot of importance

<sup>4</sup> **Signify** (Say: seeg nee f eye) – stand for something else

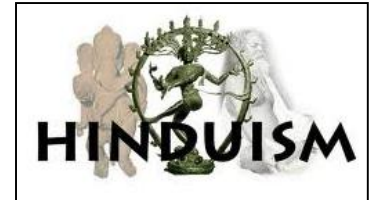
<sup>5</sup> **Eternal** (Say: ee tur nil) – forever



## Unit 9.3 - Hinduism

### What is Hinduism?

Hinduism or Sanatana Dharma ("eternal spiritual path") began about 4000 years ago in India. **Archaeological evidence**<sup>1</sup> shows that Hinduism is the world's oldest religion. Today, worldwide, there are almost one billion people practising Hinduism.



The **fundamental**<sup>2</sup> teaching of Hinduism is that a human being's basic nature is not **confined**<sup>3</sup> to the body or the mind. The spirit or spark of god is within us and also within everything we see. Anyone who takes the trouble to undergo the necessary training to purify the mind can begin to feel the truth of this. This training can take various forms and is sometimes called yoga. The general name for god in Hinduism is Brahman.

### Hindu Religious Celebrations and Customs

There are three main yearly festivals. Major festival celebrations include visiting a temple, eating special foods and exchanging gifts.

**Diwali** is the festival of lights. Light represents knowledge. It is celebrated in late October or early November. This is the Hindu New Year.

**Holi** is the festival which marks the coming of spring. It is held in March or April. There are pageants and people light **bonfires**<sup>4</sup> and cover each other with coloured water and powders.

**Dussehra** is the festival which marks the god Rama's triumph over the evil god Ravana. It is held in September. There are dances and plays where events in the life of the god Rama are performed.

<sup>1</sup> **Archaeological evidence** (Say: arc ee oh logic ul) – an ancient item that tells us something about the past

<sup>2</sup> **Fundamental** (Say: fun dim en till) – simple or basic

<sup>3</sup> **Confined** (Say: kon fine d) – trapped

<sup>4</sup> **Bonfires** (Say: bon fires) – a large open-air fire

## Hindu Religious Customs

Babies born into the Hindu faith receive a special blessing when they are born and they are given their name at a special naming ceremony. Hindus always remove their shoes before they worship. They offer sweets and fruit to their gods and they also burn incense and candles when they pray.



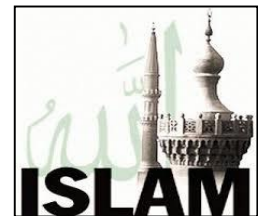
At Hindu weddings, the bride wears beautiful clothes and her hands are painted with a temporary tattoo ink called **henna**. The henna is believed to bring good luck and ward off evil.

Hindus believe that cattle are sacred (holy animals) and for this reason Hindus do not kill cattle or eat beef.

## Unit 9.4 - Islam

### What is Islam?

Islam is a faith built on a belief in the one God (Allah). It traces its history back to the first **prophet**<sup>1</sup>, Adam and another prophet called Abraham (the same Adam and Abraham that Christians believe existed). The last in the series of prophets, according to Muslims, was Muhammad.



Muhammad was born in Mecca, Saudi Arabia about 1400 years ago. He worked, first as a shepherd, and then as a **merchant**<sup>2</sup>. He was not happy with the people around him because of **superstitions**<sup>3</sup> and **social and economic injustice**<sup>4</sup>. The people were worshipping many gods and had forgotten the



<sup>1</sup> **Prophet** (Say: prof fit) – a person believed to be an inspired teacher or proclaimer of the will of God

<sup>2</sup> **Merchant** (Say: mur chint) – a person who buys or sells things for a living

<sup>3</sup> **Superstitions** (Say: super stee shins) – a belief that events can be caused by something supernatural, e.g. walking under ladders brings bad luck

<sup>4</sup> **Social and economic injustice** – when some people are treated badly because they don't have any importance in society or they don't have a lot of money



message of Prophet Abraham to worship one God. Muhammad loved to pray and meditate in the mountains. On one of those occasions, when he was about 40 years old, he received a message from God through the angel Jibril (Gabriel). He continued to receive messages from God throughout his life and he began preaching to others what he had learned.

### Muslim Religious Celebrations and Customs

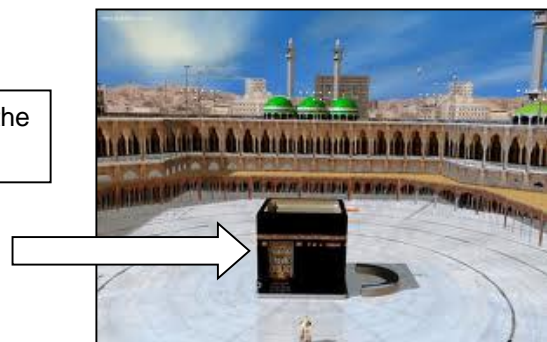
One of the most important celebrations for Muslims is **Eid ul-Fitr**. This festival marks the end of the month of fasting called **Ramadan**. It ends with the sighting of the new moon in the sky. Muslims visit their mosque to say special prayers, visit friends and relatives, eat special feast foods and exchange gifts and cards. It is a time of thankfulness for Allah's blessings which are better appreciated because of the experience of fasting during Ramadan.

### Muslim Religious Customs

All Muslims are expected to make a pilgrimage to the place of Mohammed's birth, at least once in their lifetime. This pilgrimage to the Ka'bah, in Mecca, is called Hajj.

Pilgrims wear plain, identical clothes to show that all are equal in Allah's eyes. They walk or run around the Ka'bah seven times, counter clockwise. They then walk or run seven times between two hills followed by a 16 mile walk to Mount Arafat where Muhammad preached his last religious message to his followers. On the way back to Mecca, Muslims throw stones at three stone pillars which represent Satan. Then they make a final seven circles around the Ka'bah.

**The Ka'bah** is a cube shaped building in the middle of the Grand Mosque in Mecca. Mecca is in Saudi Arabia.



When a baby is born into the Muslim faith, the child's father whispers his/her name into the baby's ear. When the baby is seven days old, a naming ceremony is performed and, at that point, the baby's hair is shaved off.

Muslims pray at least five times a day and they must always face the city of Mecca when they do this.



## Unit 9.5 - Judaism

### What is Judaism?

Judaism began about 4000 years ago with the Hebrew people who lived in the Middle East. Abraham, a Hebrew man, is considered the father of the Jewish faith because he promoted



the central idea of the Jewish faith: that there is one God. At the time, many people in the Middle East worshipped many gods. It is said that Abraham and his wife, who were old and



childless, were told by God that their children would be as plentiful as the stars in the sky and that they would live in the 'Promised Land'. This gradually came true. Today, nearly fourteen million Jewish people live all over the world. Approximately half of them live in the United States and one quarter live in Israel.

### Jewish Religious Celebrations and Customs

Jewish festivals and celebrations centre on important events in the history of the Jews.

**Rosh Hashanah** is the Jewish New Year festival which usually takes place in September or October.

**Yom Kippur** is the Day of Atonement during which Jewish people fast, pray and atone for their sins, asking God for forgiveness. This happens ten days after Rosh Hashanah.

**Passover** is celebrated in spring and marks the liberation of the Jews from slavery in Egypt and the giving of the Ten Commandments to Moses.

## Jewish Religious Celebrations and Customs

**Bar Mitzvah:** When a boy turns thirteen, he is expected to start behaving as a man and to fulfil all the duties of a Jewish person.

**Bat Mitzvah:** When a girl turns twelve, she is considered 'bat mitzvah' – a daughter of the commandment. There is usually a party for friends and family to celebrate her coming of age.



Jewish men wear a **yarmulke** on their heads when they worship and, sometimes, both men and women wear a **tallit** (prayer shawl).

## Unit 9.6 - African Traditional Religions

There are many varieties of African Traditional Religion. Nobody is quite sure when this religion began because it has been around for a long time and the beliefs and traditions were passed on from one generation to another orally.

### African Traditional Religion Celebrations

These rituals and customs are different from one 'clan' to another. In most of the rituals, ancestors play an important part in ceremonies and these ceremonies are sometimes led by a healer or sangoma.

### African Traditional Religion Customs

Rituals and celebrations are held when a child is born, when a boy is initiated into adulthood, at marriage ceremonies and at funerals. Sometimes rituals are performed to ask the ancestors for help or advice. At most African ceremonies an animal (goat, chicken, and cow) is slaughtered.



## Unit 9.7 - Reading

### **Commemorations**, rituals and customs from around the World

#### **Aboakyer**

The Effutu people of Ghana make a special offering to the god Panche Otu each spring with a deer-hunting festival. Two teams of men and boys, dressed in bright costumes, **compete** to be the first to bring back a live deer to present to the chief. The teams of hunters go out to capture an antelope and they can't use any weapons. Then everyone dances together to celebrate.



#### **Arapaho Sun Dance**

A religious festival centering on the sun dance takes place during summer in Wyoming, America. Cheyenne, Arapaho, Shoshone, and members of other Plains Indian tribes dance around a **totem** pole topped with a buffalo's head. The buffalo is a symbol of plenty, and dancers wish for good fortune in the year ahead.

#### **Day of the Dead** (Día de Los Muertos)

On November 1, Mexicans remember loved ones who have died. They 'visit' them and have a meal right in the graveyard. Stores sell sugar candy **caskets**, breads decorated with "bone" shapes and toy skeletons. On the Day of the Dead, Mexican families have a special meal in which they serve the Bread of the Dead. It's considered good luck to be the one who bites into the plastic toy skeleton that the baker hides in each loaf of this special bread.



#### **La Posada**

In Mexico and other parts of South America, people celebrate La Posada during the 9 days before Christmas. They reenact the journey Joseph and Mary took before the birth of their child, Jesus.



**Obon**

Japanese people keep the memory of their ancestors alive with a festival held during the summer. The festival is called **Obon**. People put lit candles in lanterns and float them on rivers and seas. They also visit and clean the graves of those who have died. In the ancient city of Kyoto, people light giant bonfires.

**Activity 9.7.1**

Reading with understanding and using a dictionary

Work on your own. Write the date and heading (Activity 9.7.1) in your LS book. Complete the following:

**Exercise 1**

Write dictionary definitions for the four words that have been highlighted in blue in the texts about religious commemorations. Set your answers out as follows: Circular – in the shape of a circle.

**Exercise 2**

Answer the following questions about Unit 9.7.

1. What does 'Día de Los Muertos' mean in English?
2. In which country do the Effutu people live?
3. Name three tribes of American Indians.
4. In which continent is Mexico situated?
5. Is Kyoto an old city? Give an explanation for your answer.
6. Think!!!! How many days do you think it took for Joseph and Mary to travel from Nazareth (home) to Bethlehem (Jesus' birth place)?

## Formal Assessment Project: Information Booklet

In Week 8 of Term 3 you will be required to prepare and submit a project for Formal Assessment. Your teacher will discuss the project with you now so that you can begin to gather information and plan your project.

# Module 10: Safety Measures at Home and in the Environment

## Unit 10.1 - Harmful Household Products and Safety Measures

Chemicals have made our lives easier. Thanks to them, we easily keep mosquitoes at bay, stop moths from eating our clothing and make our houses instantly smell like a dewy spring morning.

However, many dangerous chemicals and substances are used by manufacturers when they make household products – this includes products that are used to clean the house as well as products used in the garden or for machinery.

Either by accident or faulty manufacturing, household consumer products injure an estimated 1 million people in South Africa every year. Some products that are found in the home are also used for personal hygiene or medication. In many cases, if these products are not used correctly, they can be harmful to humans and animals – they could even be **fatal**<sup>1</sup>.

Certain useful products can be poisonous when they are eaten or swallowed, while others can be harmful simply by coming into contact with skin or when their **fumes**<sup>2</sup> are breathed in. Sometimes, substances that are not harmful on their own can become deadly when they are mixed with each other or when they are flushed away down drains.

### Harmful Household Products

Many common household products are dangerous. They may be reasonably safe when they are used as directed but they contain **toxic**<sup>3</sup> chemicals that must be treated with respect. Sometimes the chemicals **degrade**<sup>4</sup> or change over time and turn into a more dangerous

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<sup>1</sup> **Fatal** (Say: fay till) – causing death

<sup>2</sup> **Fumes** (Say: f youms) – gas or vapour that smells strongly or is dangerous to inhale

<sup>3</sup> **Toxic** (Say: Tock sick) – poisonous

<sup>4</sup> **Degrade** (Say: dee grade) – get old or rotten



chemical. Here is a list of some dangerous household chemicals, the ingredients to watch for and the damage they can cause.

**Air fresheners** - Most air fresheners interfere with your ability to smell by coating your nasal passages with an oil film, or by releasing a **nerve deadening**<sup>1</sup> agent.

**Bleach** - Household bleach contains *sodium hypochlorite*, a chemical that can cause irritation and damage to the skin and lungs if inhaled or spilled on the skin. When bleach is mixed with some other household cleaners dangerous, and possibly deadly, fumes may be produced.



**Drain cleaners** – Most drain cleaners contain *lye (sodium hydroxide)* or *sulphuric acid*. Both chemicals are capable of causing an extremely serious chemical burn if splashed on the skin. The chemicals are toxic to drink. Splashing drain cleaner in the eyes may cause blindness.

**Laundry detergent** - Laundry detergents contain a variety of chemicals. Eating detergents with dangerous chemicals may cause nausea, vomiting, **convulsions**<sup>2</sup> and even a **coma**<sup>3</sup>. Many people experience chemical sensitivity to dyes and perfumes present in some detergents.



**Oven cleaner** - Some oven cleaners contain *sodium hydroxide* or *potassium hydroxide*, both of which are extremely **corrosive**<sup>4</sup>. These chemicals can be deadly if swallowed. They can cause chemical burns on the skin or in the lungs if the fumes are inhaled.

**Rat poison** - Rat poisons (rodenticides) are less **lethal**<sup>5</sup> than they used to be, but they are still poisonous to people and pets. Most rodenticides contain *warfarin*, a chemical that causes internal bleeding if eaten.



<sup>1</sup> **Nerve deadening** (Say: nurv ded ning) – causing nerves/feeling to stop

<sup>2</sup> **Convulsions** (Say: kon vul shins) – uncontrollable shaking or spasms

<sup>3</sup> **Coma** (Say: comb ah) – deep sleep or unconsciousness

<sup>4</sup> **Corrosive** (Say: core oh siv) – capable of eating or burning something

<sup>5</sup> **Lethal** (Say: lee thil) – deadly

**Dishwasher detergents** - Most detergents contain *chlorine*, in a dry form, that is highly concentrated. Dishwasher detergents are the number 1 cause of child poisonings, according to poison control centres.

### Tips for safely storing products



- Follow the storage instructions as listed on the product label.
- Always keep products in their original containers with the lids on tight.
- **Never use emptied beverage or food containers, which could be mistaken by children or adults to still contain a food or beverage.** Even if the label is removed or replaced with a new hand-written label, remember that a child may not be able to read the label. Also, by keeping products in their original containers, the label can be referred to for proper and safe use.
- Keep all products out of the reach of children and pets.
- Keep all pesticides and harmful household cleaners in a locked cabinet.
- Regularly do a home survey of all household cleaning and pesticide products – check for loose caps and properly dispose of out-of-date products. If the label of a container is damaged and can no longer be read, consider the product harmful or out-of-date and dispose of it properly.
- To properly dispose of leftover or unwanted household products or pesticides, call your local solid waste management authority, environmental agency, or health department. **Never dispose of potentially hazardous products by pouring them on the ground, in a stream, down the sink, into the toilet or down a sewer.**
- Keep in mind that pets and children can get into trash cans. Therefore, do not dispose of unwanted household products or pesticides by throwing them into the bin.
- Never bury or burn the products. This type of disposal pollutes the environment.
- Store flammable products outside your living area and away from other appliances such as heaters or outdoor grills which could cause the product to catch fire.

- Never spray or store household cleaners or pesticides near pet food or water dishes or in cabinets where human or animal food or medicine is stored.

### Tips for dealing with exposure to harmful household products

Check the label of the product for any emergency instructions or an emergency phone number. If the label does not indicate what to do, or if you are unsure of what to do, don't hesitate to call your poison control centre: **Gauteng Poison Control: (toll free) 0800 111 229.**

Although there may be specific steps to take based on the type of chemical exposure, here are some general rules to follow for four types of exposure:

- **If a chemical splashes into your eyes**, rinse your eyes with water for 15 to 20 minutes. Then, call the poison control centre or other local emergency numbers.
- **If a chemical splashes onto your skin**, remove the clothing and rinse the skin under a faucet or in the shower for 15 to 20 minutes. Then, call the poison control centre or other local emergency numbers.
- **If poisonous fumes are inhaled**, get to fresh air quickly. Open windows and doors. Then, call the poison control centre or other local emergency numbers.
- If someone is not breathing or won't wake up, call your local emergency ambulance number and begin CPR if you know how.

### Tips for safely using products

- Always read the label first before buying, storing, or using any household cleaners or **pesticide**-containing products. Product labels contain information about how to safely use and store the product, first aid instructions and phone numbers to call for help or additional information.
- Try to buy only what you need and use only the amount indicated on the label.
- Follow all label instructions and precautions.
- Directions and warnings tell you how to use the product safely and correctly. Be sure to follow warnings to open windows, wear gloves and not breathe product dust and fumes.
- Keep children and pets away from treated areas.
- Whenever possible, use natural products that do not have harmful substances in them.

## Activity 10.1.1

### Poster



Work in groups of 2-3 to create a poster that informs people about dangerous household products. Read the instructions for this activity carefully before you begin.

**Equipment needed:** Poster paper (A2), Lined paper, Pens, Pencil crayons, Glue, Magazines, newspapers and adverts or other resource materials.

### Instructions

1. Each group member must select 2 of the dangerous household items listed in this Unit. Select different products.
2. Use the magazines, newspapers and advertisements that your teacher has provided to find a picture that represents the items you have selected. Cut the picture out neatly. Try to select a picture that will fit easily onto your poster paper. You may use other resources to find pictures, e.g. internet, product labels and packets, etc.
3. Write a short description for each of the household items you have selected. Write the description in draft form first and then copy it neatly onto some lined paper. Write your name and surname at the end of each description. Draw a border around the description and cut the information out neatly.  
The description should explain:
  - What the product is and what it is used for.
  - What harmful chemicals it contains.
  - How it can be harmful.
4. Plan the layout of your poster.
5. The poster must have a clear heading: **Dangerous Household Products.**
6. The picture and description for each of the products your group members selected must be pasted neatly onto the poster.

7. You may use borders and outlines and/or warning signs and symbols to give your poster more impact.
8. Ask your teacher to put your posters on display in the school hall so that you can educate other people about the possible dangers of some household products.

## Unit 10.2 - Safety Measures for Medicine in the Home

Medicines are designed to make us feel better. However, when we take the wrong medicine or too much of the right medicine, we run the risk of harming ourselves instead of healing ourselves. People of all ages are at risk of being harmed by taking the wrong or incorrect dose of medicine but babies and very young children are particularly at risk because they can't read and don't understand the possible consequences of what they are doing. Young children like to put things that they find into their mouths. If a tablet looks like a sweet or liquid medicine looks like cold drink, then they might be tempted to eat or drink it.



### Storing Medicines Safely

- Put all medicines up and away and out of sight.
- Make sure that all medicines and vitamins are stored out of reach and out of sight of young children. In 3 out of 4 emergency room visits for medicine poisoning, the child got into medicine belonging to a parent or grandparent.
- Consider places where young children might get their hands on medicine – handbags, coat pockets, car cubbyholes and bedside drawers. Place purses and bags in high locations and avoid leaving medicines on a nightstand or dresser.
- Guests in your home may not be thinking about the medicine they brought with them in their belongings. In 43% of emergency room visits for medicine poisoning, the medicine a child got into belonged to a relative, such as a grandparent, aunt or uncle.
- Consider products you might not think about as medicines, e.g. vitamins or eye drops.
- Close medicine caps tightly after every use. Choose child-resistant caps for medicine bottles, if you're able to. Remember, child-resistant does not mean child-proof, and some young children will still be able to get into medicine given enough time and **persistence**<sup>1</sup>.

---

<sup>1</sup> **Persistence** (Say: purr sis tins) – not giving up

### **Giving Medicines Safely**

- Use the dosing device (spoon/dropper/syringe) that comes with the medicine. Proper dosing is important, particularly for young children. Kitchen spoons aren't all the same, and a teaspoon and tablespoon used for cooking won't measure the same amount as the dosing device.
- Keep all medicines in their original packages and containers.
- Take the time to read the label and follow the directions. Even if you have used the medicine before, sometimes the directions change about how much medicine to give. Don't give more medicine than the label says – even if the person seems very sick.
- Read the label and know what's in the medicine especially if you are allergic to some medication ingredients.

### **Getting Rid of Medicines Safely**

- Clean the medicine cabinet regularly to get rid of medicine that has expired.
- Many chemists will dispose of old medication for you.
- To dispose of it yourself, pour the medicine into a sealable plastic bag. If the medicine is a pill, add water to dissolve it. Then, add kitty litter, sawdust or sand to the plastic bag (anything that mixes with the medicine to make it less appealing for children or pets). Seal the bag and dispose of it.
- Some medicines are dangerous and should NOT be flushed down the toilet.



### **Activity 10.2.1** **Safety Snakes and Ladders**

Your teacher will give you the equipment needed to play Safety Snakes and Ladders. Play the game in groups of 3-4 people.



## Unit 10.3 - Fire Safety

Although fire is useful for cooking or keeping warm, when it is not controlled, it can be dangerous. Most fires that start in the home are caused by careless behaviour. Here are a few helpful tips to avoid fire in your home:

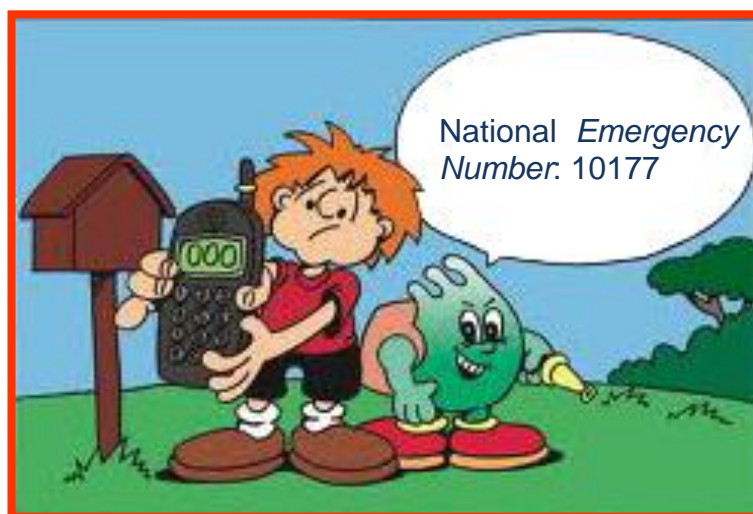
- If you use a Primus paraffin stove, then make sure it is positioned on a steady surface so that it can't fall over. Stoves that fall over can start fires. It should also be placed away from where people walk so that it is not accidentally knocked over. **NEVER leave a Primus stove unattended or go to sleep while it is still switched on.** Keep a bucket of sand nearby in case you need to put out a paraffin fire.
- Make sure that your stove or oven is far away from things that can burn easily, e.g. curtains.
- If you use a gas heater, then make sure it is regularly serviced and that you follow the instructions for using it.
- All heaters with open flames or elements that heat up must have a cover over the flame or element. This reduces the risk of a flame or heat setting fire to material or other flammable substances such as wood.
- Once you have finished using an appliance such as an iron, switch it off.
- Avoid playing with fire or things that can cause a fire.
- If you use candles, make sure that they can't fall over. Blow the candles out when you are not in the room or when you go to sleep.



- Keep matches away from young children.
- Make sure that electrical appliances are functioning properly. If the electrical connections are faulty they can cause a spark that may result in a fire.
- If a wall socket is overloaded with too many plugs, this could cause a short circuit and a spark that could start a fire.



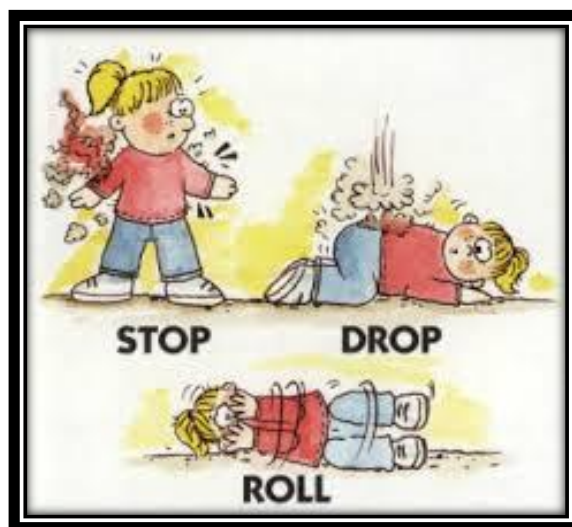
- If you have a braai area with a lapa, make sure the sparks from the braai fires don't land on the lapa's thatching. Thatching is dried grass and it burns easily and quickly. Keep a fire extinguisher or a hose pipe nearby in case a fire starts.
- Have some fire extinguishers in the house. Keep it in the kitchen if you only have one fire extinguisher (this is where a fire is most likely to start).
- Have an evacuation or emergency plan for your family. Make sure you practice the procedure often.
- Make sure that everyone knows the emergency number for the nearest fire station or emergency service.



## WHAT TO DO IF THERE IS A FIRE



- Remain calm.
- Shout, "FIRE!" very loudly and as many times as you can so that everyone knows there is a fire.
- Get out fast! Never hide or try to grab your belongings.
- Feel a door before you open it. If it is hot, then there may be a fire on the other side. Find another way out if the door is hot.
- Follow your escape plan. Stay low on the floor. Cool air sinks and hot air rises so the coolest place will be close to the floor.
- Call the fire department or emergency services once you are out of harm's way.
- Stay out!!! Do not go back to the area of the fire for anything.
- If the fire is a small one, try to put it out if you will not be endangering yourself or anyone else.
- If the fire is a large one, get out of its reach – remember that fires can cause explosions.
- Check that everyone is safe. If somebody is missing, tell the emergency services when they arrive.
- If your clothing is on fire then do the following: Stop, drop and roll.



### Activity 10.3.1

Learn about evacuation

Discuss the school evacuation plan with your teacher. Find the route that you must use to get to the emergency assembly point during a fire evacuation. Without talking, practise walking from your classroom to the assembly point. How long did it take you? Do it again. Could you do it in less time, without running? Running during an evacuation is dangerous because you could bump or be bumped by other people or fall and hurt yourself.

## Unit 10.4 - Reading

### Children's deaths in house fire caused by cigarette an accident, finds coroner

*A judge has ruled that the death of three children, in a house fire, in Bridlington, England, was **accidental**. Investigators stated that the fire was probably caused by a **discarded** cigarette. Maddie Hudson, three, William Beale, nine, and Anthony Fothergill, five, died in a blaze. Their mother was **resuscitated** by a paramedic and taken to hospital. Samantha Hudson suffered brain-damage as a result of lack of oxygen.*

*Samantha Hudson had been to her sister's birthday party and began drinking at lunchtime. She then visited several pubs during the day and returned to her house at 11pm. She sat on the floor of the living room and continued drinking and smoking with a friend, David Hall, and her brother, John Hudson. The two men left the four-bedroomed **terraced** property at about 2pm. It is thought that Samantha Hudson then fell asleep, leaning against an armchair.*

*Fire investigators concluded that a discarded cigarette was the likely cause of the fire. It **smouldered** for a time before igniting clothing, possibly school uniforms, left in the room under a bay window. Police said there was nothing to indicate the fire was started deliberately. When she heard a smoke alarm, Samantha Hudson had taken the children as far from the flames as possible. That was to a second-floor bedroom where all the windows were locked and there was no key, leaving the family trapped.*

*Humberside fire service said: "This was a tragic event with the most dreadful consequences. Samantha Hudson was incredibly brave when she put her own life in danger to try to save her children in what must have been a terrifying situation."*

*During the court hearing, the children's grandmother, Sharon Hudson, said that her 27-year-old daughter had suffered devastating injuries as a result of being starved of oxygen. She spent many months in hospital and is now in a rehabilitation centre but has "no quality of life". She added that she believed her daughter should not have been resuscitated.*



William (9), Anthony (5), and Maddie (3)

### Activity 10.4.1

#### Reading and Discussion

Work in groups of 3-4. Discuss the questions below and prepare for a report back during a class discussion.

1. Discuss the meaning of the following words, as they appear in the article: accidental, discard, terraced, smoulder, consequence and resuscitate. You may use a dictionary to help you.
2. Identify three things that Samantha Hudson could have done differently to avoid this tragedy.
3. Samantha's mother wishes that Samantha had not been saved by the emergency worker. Why do you think she wishes this?
4. In this sad incident, a smouldering cigarette caused a fire. Think of two other situations where a lit cigarette could cause a fire.



# Module 11: Water Conservation and Appreciation

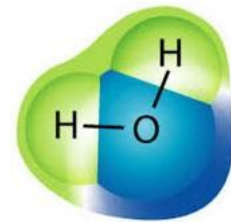
## Introduction

The existence of water is essential for life on Earth. Every living thing needs water in order to survive. Some animals and plants can survive in salt water or water that is not completely clean. However, most plants and animals (including humans), need fresh clean water to stay healthy and survive.

### What is water?

Water is made up of two elements, hydrogen and oxygen.

Its chemical formula is  $H_2O$ .



Water has three different states, **liquid**, **solid** and **gas**. The word *water* usually refers to water in its liquid state. The solid state of water is known as ice while the gas state of water is known as steam or water vapour.

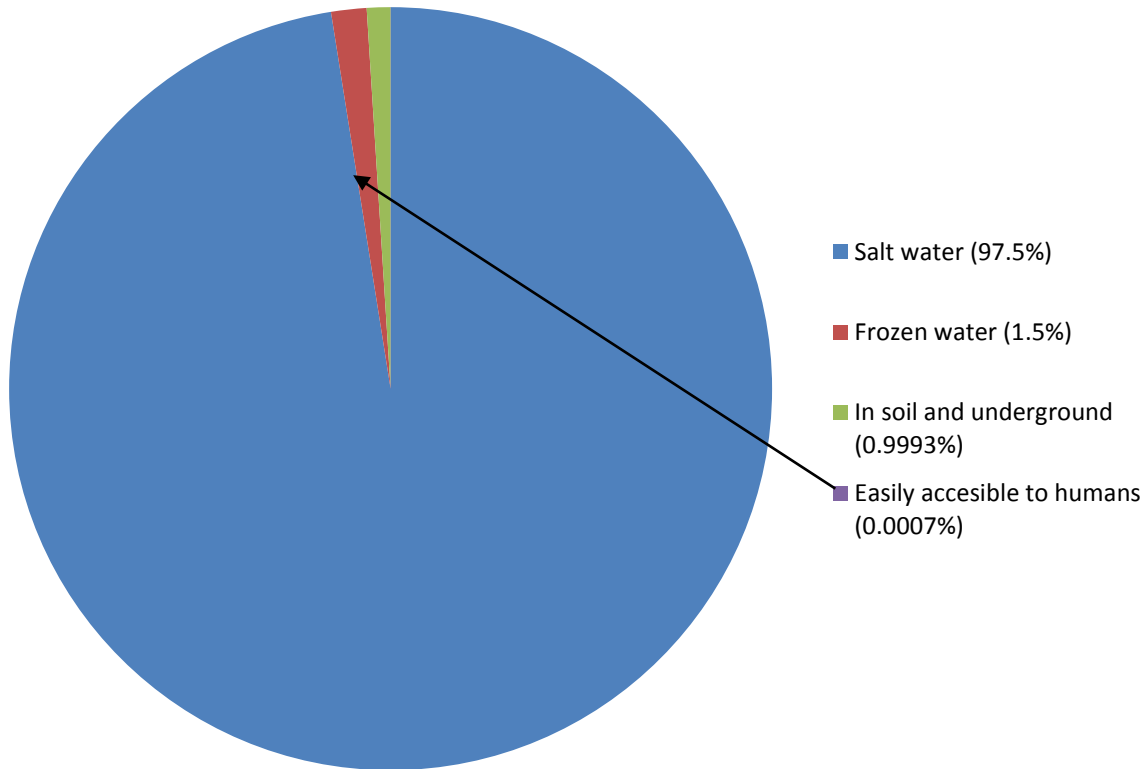
### **Why do we need to conserve and appreciate water?**

Water, in liquid or solid form, covers about 70% of the surface of our planet. Seventy percent sounds like a lot of water, doesn't it? Why then is everybody so worried about water conservation and water pollution? Here is why: 97.5% of all water on Earth is salt water. This leaves only 2.5% suitable for most animals and plants. Of this 2.5% of fresh water, about 1.5% is frozen in the icecaps of the North and South Poles. This leaves only 1% suitable for most animals and plants. Most of this 1% is found in the soil as moisture or it lies in deep underground lakes and humans can't get to it. What's left for humans and other animals? Only 0.007% of all water on earth.

This small percentage of useable water is found in rivers, lakes, dams and underground sources that are shallow enough to be reached at an affordable cost.



## Fresh water on Earth



### Unit 11.1 - The Importance of Water

#### Why is water important for humans?

Human beings use water for washing, cooking, flushing toilets, watering gardens, **recreation**<sup>1</sup>, farming, **industry**<sup>2</sup> and generating power. However, this is not what makes water so important to us. The human body cannot survive without water. People can survive for up to 4 weeks without food but cannot live without water for more than a few days.

To stay healthy, experts recommend drinking approximately eight glasses of water each day. Of course, if you live in an extremely hot or cold area - or if you exercise a lot - you may need to drink more water every day.



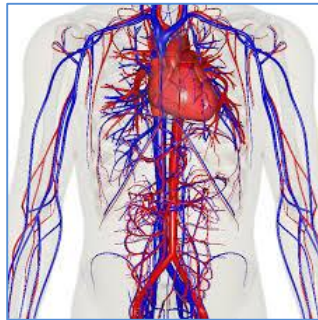
<sup>1</sup> **Recreation** (Say: rek ree aye shin) – activities for pleasure, e.g. sport

<sup>2</sup> **Industry** (Say: in dust ree) – factories or companies that make things

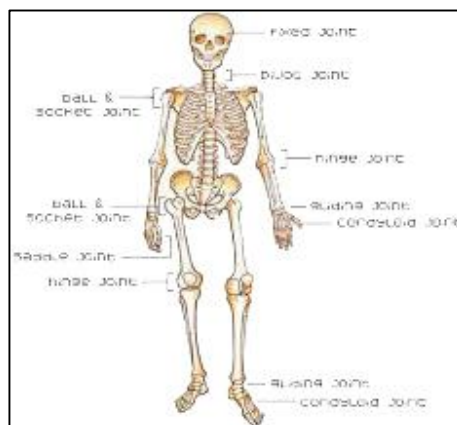
## What does your body do with all the water?

More than half of your body weight is water. This doesn't mean that your body is like a glass that you fill with water. What it does mean is that water is the biggest part of all the fluids (liquids) that travel round your body. There is a lot of water inside your cells too. Even bones have a lot of water in them! Read through the following information to help you understand why your body needs so much water:

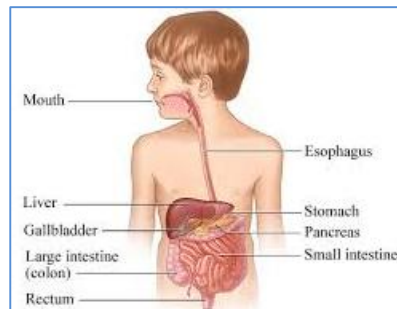
- The blood that moves around your body is mostly made up of water. Blood is the main way the body gets food and oxygen to your cells.



- Water assists the body with removing waste and toxins. All the stuff the body doesn't need has to get out of the body somehow. The kidneys make urine and the intestines make faeces – both of these waste products contain water.
- Saliva, or spit as we usually call it, is mostly made up of water. We know when we need more water because our mouth feels dry.
- The human body also uses water to regulate body temperature and keep it at about 37°C. Water comes out through the tiny holes in your skin called pores. This water is called perspiration or sweat and it helps to cool our bodies.
- Water is found in the fluids that keep joint movement smooth (like knees and elbows) so that your bones don't creak and groan like a rusty swing.



- Mucous is also mostly water. That's the stuff that you see too much of when you've got a runny nose! But mucous is very important, as it keeps the eyes, ears, nose, throat and all the inside bits smooth and slippery so that everything can run around your body systems without getting stuck!
- Water makes up 75% of the brain, 22% of all the bones in your body and 70% of muscles.
- Water assists with digestion of food. Water carries digestive enzymes around your digestive system so that food can be broken up into all the bits your body needs.



### Activity 11.1.1

Why water is important to humans?

#### Group work

Make a list of at least 10 ways in which you use water in your daily life. Share the list with the rest of the class during a class discussion.

### Activity 11.1.2

Why water is important to humans?

#### Work on your own

Your teacher will give you a copy of a diagram of the human body. Write the date and heading (Activity 11.1.2) in your LS book and paste the diagram into your book, under the heading. Provide a suitable description for each of the label lines. Briefly describe how water works in that part of the human body or how much water it contains. Two of the labels have been completed for you as examples.

#### Why is water important for the Earth?

There are many life forms that can live with very little water, but nothing living on Earth exists without water. A fluid is needed for the transportation of the nutrients that are required by all living things. All life on Earth uses water as this fluid transport system.

Without enough water, plants wither and die. Animals, including human beings, rely on some plants as a source of food. Plants also help to ensure that the oxygen levels on our planet stay constant. If all of the plants on our planet died because there was not enough water, then all living creatures would suffocate or starve to death.



We can see the impact of lack of water has in areas where there has been no rain for a long time. The **famine**<sup>1</sup> that results from long term drought can result in people and animals starving and eventually dying.



## Unit 11.2 - Ways of Conserving Water

Children can make a very important **contribution**<sup>2</sup> to water **conservation**<sup>3</sup>. Although children don't work at large companies or for the government, they can still make a huge impact simply by changing the way they and their families and friends use water.

To get an idea of how much water we could all save if we all made a small effort, think about this: If every person across the nation flushed their toilets one time less every day, together they could all save enough water to fill a lake as large as 3 kilometres wide and long and 2 metres in depth!



Now that you know what a huge difference you can make, try some of the ideas listed in this unit and start doing your part to conserve our Earth's water supply.

- When you wash your hands, wet your hands and turn the water off. Use soap and **lather**<sup>4</sup> your hands well. Then, turn the water on to rinse the soap off.
- Tell adults when taps are dripping. This is normally caused by a faulty seal (washer) and can easily be replaced.
- Use a wastebasket for used tissues. Don't flush them – the average flush uses as much as 15 litres of water!

<sup>1</sup> **Famine** (Say: fa min) – extreme shortage of food

<sup>2</sup> **Contribution** (Say: kon tra byew shin) – the part somebody or something plays to help something be achieved

<sup>3</sup> **Conservation** (Say: kon sir vay shin) – looking after or protecting

<sup>4</sup> **Lather** (Say: lah thir) – to create bubbles and foam using soap and water

- When you brush your teeth, turn the tap on to get the toothbrush and toothpaste wet. Turn the tap off while you brush your teeth and turn it on again to rinse your mouth and toothbrush. Don't leave the water running while you're brushing.



- Do you have plants in your house? When meals are prepared and vegetables or other fresh produce are washed, collect that water and use it to water the plants.
- Sweep driveways and patios rather than hosing them down.



- If you notice a burst pipe or overflowing drains in your neighbourhood or town then tell an adult so that they can notify the town council.
- Is there a leaky tap or toilet in the bathroom at school? Be sure to let someone know so that it can be repaired.
- Since baths use a lot of water (about 100 litres on average), take short showers instead and use only about 50 litres of water, instead.





- Do you use hot water to wash dishes? Rather than letting the cold water from kitchen tap run down the drain while you wait for the water to get hot, keep some empty 2 litre bottles handy. Collect the cold water and use it for cooking or watering plants.
- If the adults in your home water the lawn, encourage them to water in the cooler parts of the day (early morning, or at or after sunset), and never on windy days. This reduces the amount of water being lost to **evaporation**<sup>1</sup>.

Even if you do just one thing each day to contribute to your home's water conservation, you're doing the right thing!



### Unit 11.3 - Ways to Protect the Quality of Water

Fresh water is one of our most important resources, and when our water is polluted it is not only destroys the environment, it also causes human health problems. Polluted water isn't just dirty—it can be deadly. Around the world, 1.8 million people die every year from diseases like **cholera**. These diseases can be directly linked to drinking polluted water.

**Cholera** is a disease that infects the small intestine, an organ of the digestive system. It is caused by a bacterium called *Vibrio cholerae*. Symptoms are severe diarrhoea, vomiting, and dehydration. People mainly get infected by eating food or drinking water that is contaminated. If you are ever in an area that has cholera, boil or disinfect water, avoid raw food and wash your hands often.



<sup>1</sup> **Evaporation** (Say: ee va pir ay shin) – when water changes from a liquid to a gas because of heat



In South Africa, some people are fortunate enough to have clean water delivered to their homes through pipes and taps. Dirty water and toilet water are also removed through drains and sewerage systems. Before it is delivered to homes, water is treated to remove chemicals, bacteria and **particulates**<sup>1</sup>. This clean water can be used for cooking, drinking, cleaning, bathing, watering lawns and so forth.

Most of the piped water in South Africa comes from **dams and reservoirs**<sup>2</sup>. Dams are fed by rivers that flow into them. If the rivers that feed these dams become polluted then it is more difficult and expensive, to clean the water before it is delivered to people's homes.

Unfortunately, not all South African citizens live in homes that have the luxury of tap water. Some people have to walk long distances to collect drinkable water and transport it back to their homes.



Many South Africans do not even have access to this basic service and are forced to use and drink water from rivers near where they live or to collect rain water in barrels or from wells. If this water is not clean, then it is dangerous for people to use and drink it.



All South African Citizens have a responsibility to protect the country's water supply and keep it clean – even if they are not lucky enough to have access to municipal tap water. The

<sup>1</sup> **Particulates** (Say: par tick you lits) – soot and other small bits of sand

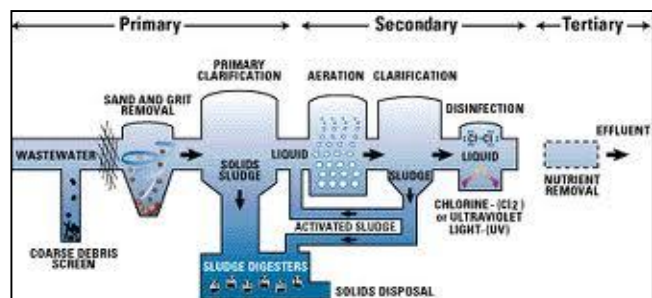
<sup>2</sup> **Dams and reservoirs** (Say: reh zur vwaha) - A *dam* is the object/wall made to hold back the water flowing in a river. The *reservoir* is the collected water/lake that is held back by the *dam*.

more money our government has to waste on purifying polluted water, the less money there will be to lay pipes to provide tap water to those people who don't have any at the moment. We can protect our water and keep it clean by:

- Keeping our rivers and dams litter free.
- Using suitable ablutions for personal hygiene instead of rivers or dams.
- Disposing of rubbish and sewage in a way that doesn't pollute water.
- Not pouring harmful household products down kitchen drains, basins or toilets.
- Volunteering to take part in community clean up campaigns.
- Reporting people or companies that you know are polluting water.
- Pick up the 'mess' your pets make outside – pet waste is raw sewage and can be washed into drains when it rains. Drain water is transported to municipal holding tanks - this water is purified and treated and often recycled back to household drinking water.



An aerial (from above) view of a sewage treatment plant.



How water is purified at a sewage treatment plant.

## Unit 11.4 - Reading with Understanding

Many of the diseases caused by **water-borne**<sup>1</sup> bacteria can be destroyed by **purifying**<sup>2</sup> water. Remember that it is not only dirty water that carries germs. Clear mountain water, river water and crystal-clear lake water can contain organisms which can make you very sick. Even if you live in a house with municipal water, it is good to know a few methods to purify water – a flood or other disaster might put a stop to your convenient water supply and your knowledge will prepare you for this emergency and might even save some lives (including your own).

<sup>1</sup> **Water-borne** (Say: water born) – carried by or in water

<sup>2</sup> **Purifying** (Say: pyur ee fig eeng) – to take harmful parts out of something so that it is pure

Do-it-yourself water purification involves two important steps.



**First:** Get rid of the dirt.

**Second:** Get rid of the harmful organisms.

There are many ways to accomplish these two steps. Getting rid of the dirt and other grit can be achieved by filtering the water. Getting rid of the harmful organisms can be achieved by boiling the water or treating it with chemicals. You can try some of the basic filtration methods on your own. However, **when you boil water or add chemicals to purify the water, always have an adult assist you.**

### Purification Using Sand

One way to get rid of twigs and other particles is to build a simple **aquifer**<sup>1</sup> using stones and sand. This method involves creating a layer of tightly packed stones at the bottom and putting a layer wet sand on top of the stones. The dirty water is slowly poured through the layers and collects in a container placed under the aquifer. Some aquifers use more than two layers and they also have additional filters such as charcoal and material. The disadvantage of this system is that it does not destroy bacteria and other harmful organisms.



### Purification Using Chemicals

Some basic household chemicals can be used to purify water. Liquid iodine (2%) can be used to purify water. Chlorine will also purify water.

**WARNING: Unless you know exactly what amounts of iodine and chlorine to use then this can be a dangerous way to purify water. Chlorine and iodine are harmful substances when they are not used correctly. Children should never use this method without adult supervision.**

<sup>1</sup> **Aquifer** (Say: ack we fir) – a system of filters used to purify liquids

Sometimes, people who are going into areas where clean water is not available stock up of specially made iodine and chlorine tablets that can easily fit in water bottles.

### **Purification by Boiling**

Purifying water by boiling avoids the use of dangerous chemicals and ensures that the water is sufficiently purified. In order to kill all the bacteria or micro-organisms in the water, the water must reach boiling point and be kept at a steady boil for at least one minute.

**WARNING: Children should be properly supervised at all times when near boiling water.**



Burns caused through contact with boiling water

### **Activity 11.4.1** Building a basic aquifer

Work in groups of 3-4 for this activity.

#### **You will need:**

- An empty 2 litre plastic bottle with the bottom cut off.
- An elastic band
- A square piece of material (10cm by 10 cm)
- One plastic jug (1 litre) filled with dirty water
- One plastic container (1 litre)
- Two cups of pebbles
- Four cups of sand
- One kitchen cloth cut into two pieces
- One cup of charcoal (broken into chunks and pieces)



### Other information

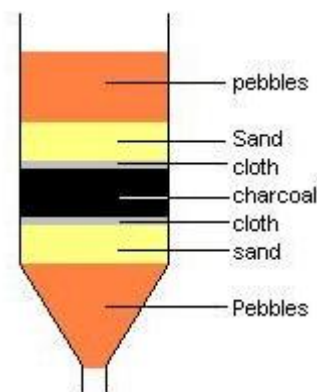
The cloth or bandages are used to ensure that all the different materials do not mix. The pebbles and sand filter the particles and the dirt out of the water. The charcoal gets a big portion of the chemicals out of the water, but it won't get it all out.

### Instructions for building the aquifer:

1. Remove the lid of the bottle if it is still in place.
2. Attach the square piece of material to the opening where the lid used to be by pulling it tightly over the opening and securing it with the elastic band.
3. Turn the bottle upside down so that the cap side faces the floor.
4. Put the following materials into the bottle, in this order:

- First: 1 cup of pebbles.  
 Second: 2 cups of sand.  
 Third: 1 piece of kitchen cloth (make sure it covers the sand).  
 Fourth: 1 cup of charcoal.  
 Fifth: 1 piece of kitchen cloth (make sure it covers the charcoal).  
 Sixth: 2 cups of sand.  
 Seventh: 1 cup of pebbles.

The layers should look like this once they have been placed in the bottle.



### Instructions for purifying the water:

1. Place the bottle, cap side down, into the 1 litre plastic container. Hold it in place.
2. Slowly pour the dirty water from the 1 litre jug into the water filter.
3. Once all of the water has filtered through the aquifer, remove the bottle from the plastic container.

### Conclusions

1. Do you notice a difference between the water in the container and the water that was in the jug? What is the difference?
2. What do you think will happen to the water in the container if you pass it through the aquifer again? Test your theory by filtering the water once more.
3. Can you drink this water? Why?



## Module 12: Healthy Eating for Children

### Unit 12.1 - What our Bodies Need to Stay Healthy



This impressive sports car is a Lamborghini. If you would like to buy one, it will cost you three and a half million rand. Anyone who spends that much money on a car would service it regularly, drive it often and make sure it was kept clean. They would also use fuel that would make the car run smoothly.

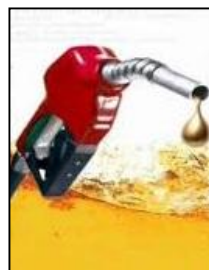
**Which of the substances on the next page would be suitable to use as fuel for this Lamborghini?**



Carrot juice



Milk



Petrol



Honey

If you answered anything other than petrol, then make sure you have a good insurance plan for your Lamborghini.

Your body can be compared to a Lamborghini except for the fact that it is far more complicated and efficient and....it was given to you for free! The human body is more complicated than the most advanced computer. However, just like the Lamborghini, your body must get the right fuel to keep it running smoothly. Your body runs on the fuel it gets from what you eat. If it doesn't get the right kind of fuel then it doesn't work very well or, like a car, it could break down.



## What fuel does your body need?

According to the South African department of Health, most adults and children over the age of seven years need protein, carbohydrates, fat, vitamins, minerals and water. Your body needs all of these, to grow, repair itself and function properly.

## What is protein?

There are 20 chemicals called amino acids, which join together in different ways to make thousands of different proteins.

### Where do these amino acids come from?

11 of these amino acids are made by your body and are called 'non-essential' amino acids. The other 9 'essential' amino acids are in food.

### What does protein do?

Protein builds up your muscles, organs and glands.

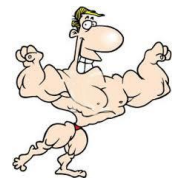
It helps repair and replace them so that your body can keep on working.

It helps to form haemoglobin (pronounced 'heem-o-glow-bin') which carries oxygen around the body in your blood.



It creates antibodies that help to fight diseases.

It provides the building blocks that help our bodies to heal cuts and grazes.



### Where do you get protein?

Meat, chicken, fish, eggs, nuts, dairy products and legumes (the pea and bean family), can supply your body with protein. Protein from animal foods has **all** the essential amino acids you need. Plant foods have each got **some** of the protein you need.



A vegetarian (somebody who doesn't eat animal foods) must plan a diet very carefully to make sure that all of the protein that his/her body needs are in the plant foods that they eat.

## What are carbohydrates?

There are two types of carbohydrates (pronounced car-boh-hi-drayts):

### Sugars

Simple carbohydrates (because your body digests them quickly and easily)

### Starches

Complex carbohydrates (it takes your body longer to digest them)

### What do carbohydrates do?

They give energy to all the cells in your body.

They produce glucose (pronounced 'gloo-kohws').

Glucose gives you quick energy, but your body cells can't use a lot of it all at once so it saves some in your liver and muscles, as glycogen (pronounced 'gly-koh-jin').

It's a bit like having two tanks of petrol, the one your car is using and a reserve tank in case you run out of fuel.

So, if your body runs out of glucose it switches to the reserve tank, glycogen. Once there is enough glycogen stored in your liver and muscles the rest turns into fat.

Some simple carbohydrates come from foods like fizzy drinks and lollies.

These foods have lots of sugar but they don't have important vitamins which your body needs.



Other simple carbohydrates come from foods such as apples, bananas, grapes, raisins, as well as low-fat ice cream and frozen yoghurt.

These foods give you simple carbohydrates as well as extra benefits such as vitamins and minerals.



Complex carbohydrates come from food like bread, cereals, pasta, corn, potatoes and carrots. They give you energy more slowly so it lasts longer and they have many of the vitamins and minerals that your body needs.



## What is fat?

In your body, fat is the way you store energy - for later.  
There are three types of fat in the food that we eat.

### Saturated fatty acids

from animal foods, dairy foods and some oils that come from plants.



### Unsaturated fatty acids

from plants, fish and most plant oils.



### Mono unsaturated fatty acids

from some plant products such as olive oil and canola oil.



### Some good things about fat

- It acts as the body's reserve tank of energy.
  - It protects our organs - like a cushion.
- It helps our bodies stay warm in cold weather.
- It helps hormones keep blood pressure steady.
  - It helps keep skin and hair healthy.
  - It stores some vitamins.

### Some bad things about too much fat

- It can lead to obesity.

(when a person weighs too much for his/her height and body type).

- It can lead to illnesses when you're older (heart disease).
  - It can make you feel bad about how you look.

### How to avoid too much fat

- Choose low fat milk, yoghurt, cheese, etc.
- Cut fat off meat before cooking/eating and avoid chicken skin.
- Avoid fried food and pastries (make them 'sometimes foods').

## What are vitamins and minerals?

There are two types of vitamins and two types of minerals: Fat soluble and Water soluble.

### Fat soluble vitamins

Here are a few examples of fat soluble vitamins and what they do.

<b>Vitamin A</b>	Helps you see at night and help your body fight infections.
<b>Vitamin D</b>	Helps to make strong bones.
<b>Vitamin E</b>	Helps to protect your skin.
<b>Vitamin K</b>	Helps to stop bleeding

Fat soluble vitamins are stored in the fatty tissues of your body and in the liver. Some are stored for a few days and others for months, until your body needs them.

## Water soluble vitamins

Here are two examples of water soluble vitamins and what they do:

<b>Vitamin C</b>	Helps to fight infections.
<b>Vitamin B</b>	Helps to make energy and protein and red blood cells.

These vitamins are always on the move through your bloodstream. If your body doesn't need them right away they just keep going until they leave your body when you urinate.

## What are macro minerals?

Macro is a Greek word, which means large. Your body needs lots of macro minerals.

Calcium, iron, phosphorous, magnesium, sodium, potassium and sulphur  
are examples of macro minerals.

**Calcium** builds strong bones and teeth.

It is found in dairy foods like milk, yoghurt and cheeses.

**Potassium** helps to control the contraction and relaxation of muscles such as the heart.

It is found in fruit, seeds and nuts, bananas, potatoes and legumes.

**Sodium** and **chloride** help to transport proteins.

They can be found in table salt and food like processed meats, bread and cheese.

**Phosphorous** (say: fos four us) helps develop strong bones.

It can be found in meat, fish, poultry, dairy products and lentils.

## What are trace minerals?

Trace is a word which means 'only a tiny bit' so that's how much you need of minerals like manganese, copper, iodine, zinc, cobalt, fluoride, and selenium.

**Zinc** is so powerful that you only need a little bit to help you grow.

It is found in meat, fish and poultry (chicken and other birds.)

**Iron** helps make the red blood cells which carry oxygen through your body. It gives the body lots of energy. Iron is found in red meat, liver, and some cereals.

**Copper** plays a part in producing energy in your cells.

Copper can be found in nuts, seeds, organ meats, and seafood.

**Manganese** helps to improve the body's immune system (fighting disease). Manganese can be found in whole-grain products, lentils, fruits (pineapple and strawberries) and vegetables (kale).

**Activity 12.1.1**  
Design a Vitamins and Minerals Logo

This is a challenging activity so you may discuss some ideas in groups of 2-3.

However, you need to complete the task on your own.

Use a blank sheet of A4 paper for this activity.

1. Select one vitamin or mineral and design (plan and draw) a picture to represent the vitamin or mineral you have selected. Make sure that your drawing shows what vitamin or mineral you have selected and that it illustrates one of the following:
  - what its purpose/function/benefit is to the human body
  - OR
  - what food it can be found in.
2. Use colour where and if you think it is required in your drawing.
3. Give a brief description of what your drawing shows.

Take note: You do not have to be an excellent artist to complete this activity. A simple and well thought out basic drawing will do. It is the message that is important.

Here are two examples:



**Vitamin C is  
found in  
oranges.**



**Calcium is found  
in milk.  
OR  
Calcium builds  
strong teeth.**



## Unit 12.2 - Factors that Influence Children's Diets

There are many things that influence what and how much children eat. These factors may be external, internal, physical or emotional.

### Some external influences

- Advertising: Half of the adverts aimed at children are food adverts and most of them encourage children to eat unhealthy foods. Advertisers are not concerned about healthy eating - adverts are designed to make you purchase and eat a food product because high sales mean high profit for the company selling the food.
- Many unhealthy foods taste good because they have been processed - additives and chemicals have been used to improve the look or flavour of the food. Good taste does not equal good health but advertisers don't always tell you that. Very few advertisers warn people the effects of over-eating that food.



- Today, most food packaging is required to have a label that explains the nutritional value and ingredients that have been used. Normally, this information is printed in very small letters – usually in a boring format and in black and white. Why do you think the manufacturers of the food do this?
- Poverty: Some children do not have enough food to eat because their parents do not have enough money to buy food.
- Parents' eating habits: Children learn by following the example of important adults in their lives. Research has shown that parents who eat unhealthy food usually have children who eat unhealthy food.



- Some children like to go to shopping centres - most of the time the food outlets in these locations sell low nutrition fast foods.



- Peer pressure: Sometimes, children who bring healthy snack to school are teased and called names.
- Parents that work: In modern families, both parents work during the day. Sometimes, they don't have the time or energy to cook a healthy meal so the family ends up eating fried food that can be quickly prepared or they eat out or order take-away meals.



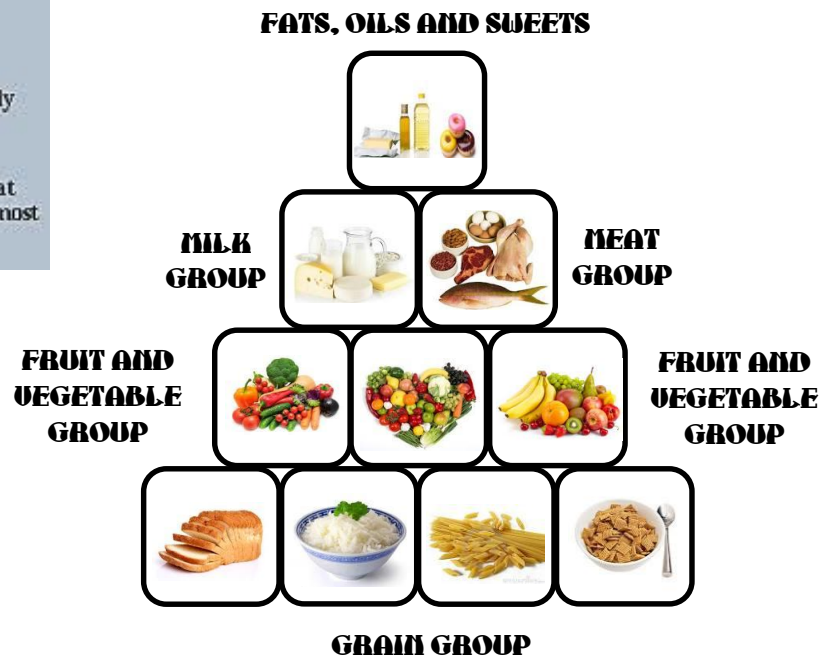
- Availability of food: Because food is so readily available in our culture, it is easy to eat without thinking about how hungry you really are or how much you have already eaten that day.

### Some internal influences

- Some children are sick and don't feel like eating.
- Some children don't get up early enough to eat breakfast. This results in their bodies needing energy quickly – the choices of food then tend to be unhealthy carbohydrate foods that give a quick energy boost.
- Healthy food does not always taste as good as processed fast food so children choose to eat what tastes good rather than what **IS** good.
- Emotions such as depression, anxiety, boredom, and stress often lead to unhealthy eating habits in children. Sometimes attempts to change eating habits cannot succeed until we learn to manage the emotions and stress in our lives.

## Food choices

Eating in a way that is healthy does not mean that you can never eat food like hamburgers, sweets or pizza. However, it is important that you have a balanced eating plan that gives your body the opportunity to get rid of the junk when you eat sugar or saturated fats. Dieticians have done a lot of research into the best way to plan meals and eating habits. Here are a few of the suggestions that they have made for healthy eating:

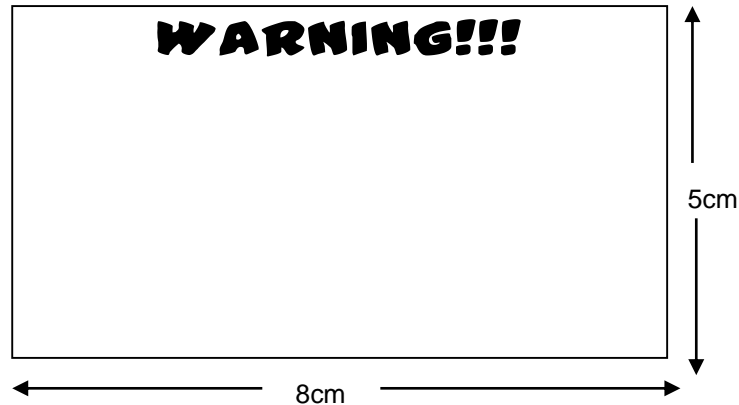


### Activity 12.2.1 Healthy food choices

Work on your own. Write the date and heading (Activity 12.2.1) in your LS book. Answer the following questions:

1. What group of food should we eat the most of on a healthy eating plan?
2. Should we eat more fruit or more vegetables in order to stay healthy?
3. Only one of these food pyramids has something important included that is essential for keeping our bodies clean inside. What is it?
4. Select from the factors listed in this Unit. What three factors, in order of importance, influence the kind of food that **you** eat?

5. If companies that sell foods that are not healthy were forced, by law, to put warnings on their food, like they have to put on cigarette packets, what warning do you think they should use? Draw a block, similar to the one below and write your suggestion into the block.



### Unit 12.3 - Reading

The idiom ‘You are what you eat.’ summarises how important it is for children to eat food that is good for growing bodies and active life styles. If children eat correctly, it will have a positive effect on their physical health and on their mental and intellectual ability.

The body relies on the nutrients it gets from food to keep it running smoothly and in good health. In today's society, the **abundance**<sup>1</sup> of **processed**<sup>2</sup>, high-calorie, low-nutrient foods is responsible for a wide range of illnesses and diseases.

If children develop bad eating habits when they are young, then they are likely to have bad eating habits as adults. Eating incorrectly for long enough can have a serious impact on the health of both the mind and the body.

The most common problem among children today is poor nutrition. Since we are now in a modern economy, foods are processed with preservatives. Manufacturers do this to **prolong**<sup>3</sup> the life of their products. Processed foods are high in sugar, fat and salt that can cause illness and disease.

<sup>1</sup> **Abundance** (Say: a bun dins) – in large amounts

<sup>2</sup> **Processed** (Say: pro sest) – changed by adding or taking something away

<sup>3</sup> **Prolong** (Say: pro long) – to make something last longer

The most common negative effects of eating unhealthy food among children nowadays are obesity, liver diseases, diabetes, poor school performance, and heart problems. Here is some more information on what a poor diet can do to your body:



### **Indigestion**

Indigestion refers to uncomfortable sensations in your upper stomach during or after eating. Some causes are eating greasy or fatty foods, eating too fast, overeating and drinking too much alcohol or caffeine.

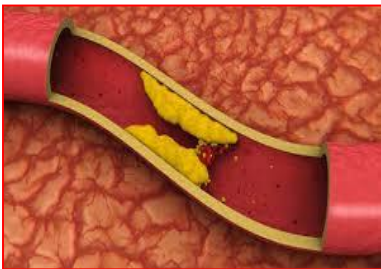
### **Heartburn**

Heartburn -- burning in your upper chest area -- often accompanies indigestion. Some people also experience nausea or bloating if acidic stomach contents move back up into their throat.



### **Heart Diseases**

Food that is high in salt (sodium) can lead to high-blood pressure and certain heart diseases. Eating too much fat can cause a fatty layer to form inside a blood vessel. This blockage means that the heart has to work much harder to move blood around the body.



### **Obesity** (Excessively overweight)

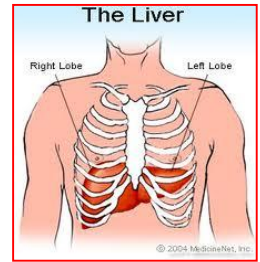
Obesity is a problem in today's society because of inactivity and poor diet. Foods that are high in sugar and saturated fats can lead to obesity and this can open the door to a number of other diseases, including heart problems and diabetes. Processed foods are high in saturated fats and sugar. Some of the food that is high in fat includes French fries, fried chicken, processed cheese, hot dogs and pizza.





### Liver Disease

The liver helps to digest food, makes proteins and gets rid of waste. When we eat foods that are processed, this increases the risk of having a fatty liver. This means that the liver will not be able to make the proteins the body requires and will not be able to get rid of the toxins that could hurt the body.



### Poor Sleep

While eating a small, balanced snack before bed may help you sleep, going to bed hungry and overeating can stop you from sleeping or stop you from sleeping well. Poor sleep can then cause or worsen other short-term effects of an unhealthy diet.

### Poor Performance in School

When a child does not get all of the nutrients needed, a symptom might be slow performance in school. There is poor progress when it comes to examinations and children get tired easily and can't concentrate for long periods of time.

### Tooth Decay

Many different types of food can cause tooth decay in children, not just sweets. Foods that are high in carbohydrates, as well as some fruit, juices and sodas, peanut butter, crackers and potato chips are culprits. Children should rinse their mouth with water after meals, if they can't brush their teeth. This will remove most of the sugar and acid that can lead to tooth decay. Use a straw when drinking soda to keep sugar away from teeth.



## ***Your health is in your hands***





**Activity 12.3.1**  
Unhealthy eating habits and illness

Work on your own. Write the date and heading (Activity 12.3.1) in your LS book. Your teacher will give you a copy of the Activity Sheet.

Find or draw two pictures of unhealthy food and paste them into the left hand column. Describe 5 unhealthy effects these foods can have on our bodies, in the right hand column.

<b>Can cause</b>	

Visit the following website if you would like to know more about 33 of the unhealthiest foods: <http://bembu.com/most-unhealthy-foods>

## Formal Assessment: Project

### Information booklet: Festivals and Customs of South African Religions

This project will be assessed, recorded and shown on your Term 3 report.

#### Compiling an Information Booklet

##### Important Information

1. You will be required to compile an information booklet about one of the common religions in South Africa.
2. You must work on your own to complete this project.
3. Your research can be done at home or at school (using resources provided by your teacher or the media centre).
4. Your information booklet must be compiled and completed at school.
5. You may not complete this project at home.

6. Your project information must be handwritten. You must write the information in your own words. If you copy straight from an article or book you will lose marks.
7. You may use pictures or draw illustrations yourself.
8. Your booklet may be presented in any 'book form'. You are not permitted to use a flip file.
9. Your booklet must have the following:
  - A cover page
  - A table of contents showing which information appears on which page
  - The last page must contain a bibliography that lists the books or articles that you used to find information
  - Clear headings and sub-headings.
10. Use the rubric provided to guide you.

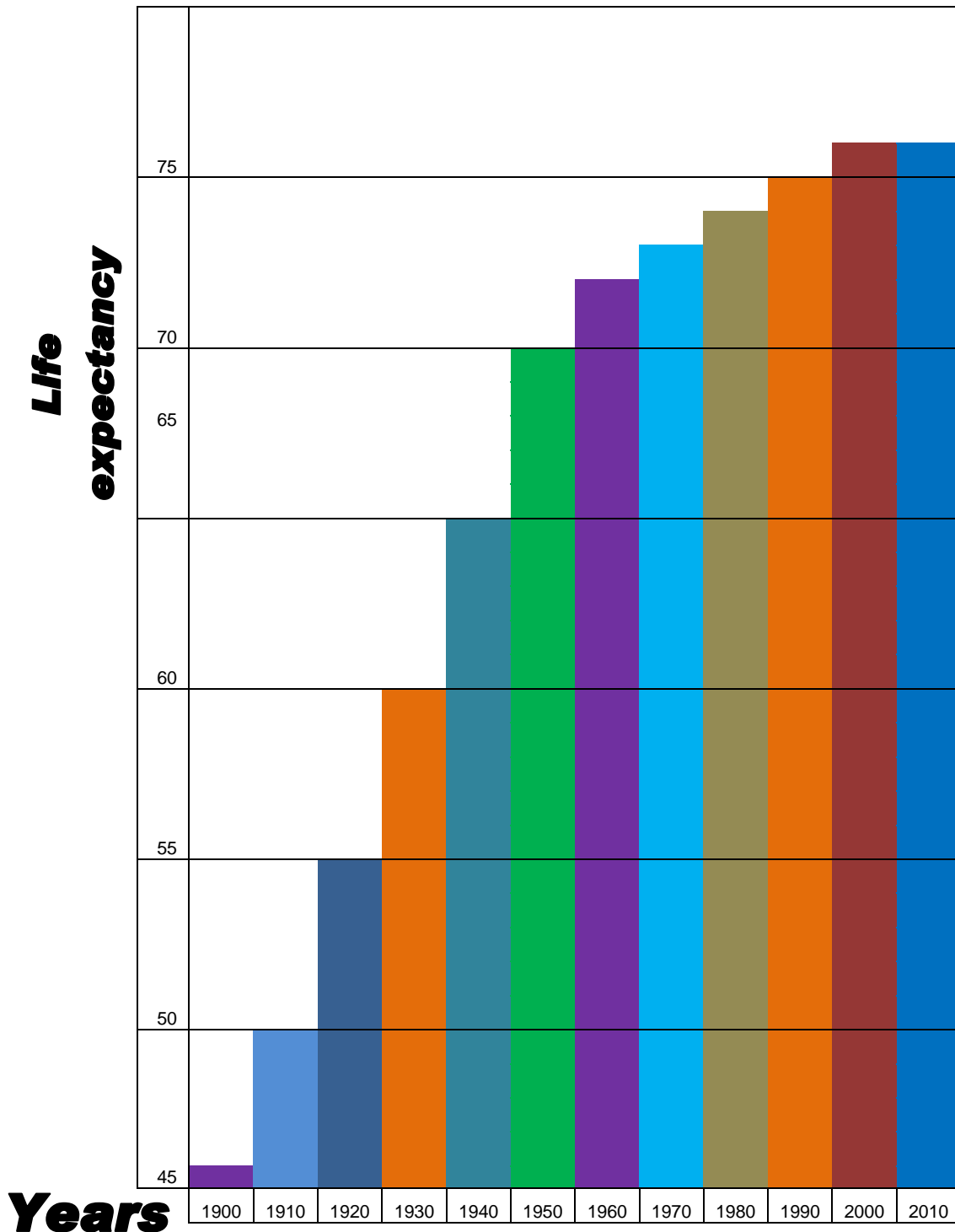
### **Instructions**

1. Choose one of the following religions: Hinduism, Judaism, Christianity, Islam, African Traditional Religion or Buddhism.
2. Research the following headings and sub-headings and include them in your project, in the following order.
  - a. How and when the religion began
  - b. The main beliefs of the religion
  - c. Important religious celebrations (present two). Discuss
    - The name of the celebration
    - What the celebration is
    - What the importance of the celebration is
  - d. Sacred places and spaces
  - e. Sacred symbols and texts
  - f. Important Customs (present one). Discuss
    - What the custom is
    - What the importance of the custom is
  - g. Other interesting information (e.g. Food and drink normally associated with the religion)

## Module 13: Locally Occurring Health Problems

### Introduction

Five hundred years ago, the average number of years that a human being could expect to live was between 35 and 40. In the last 100 years, the average life expectancy has almost doubled to between 65 and 70 years. The graph below shows this development.



The following things have played a part in this massive jump:

- Better health care and the discovery of new medicines.
- Better sanitation, e.g. waste removal and the invention of flushing toilets.
- **Immunization**<sup>1</sup> of people to prevent disease.
- **Access**<sup>2</sup> to clean running water.
- Easier access to good nutrition.

### Activity 13.1

Work in groups of 3-4. Talk about the following in preparation for a class discussion:

1. Between 1910 and 1950 the average increase in **life expectancy**<sup>3</sup> every **decade**<sup>4</sup> was about 5 years. Since 1960, this number has dropped. What is a possible reason?
2. According to scientists, the high number of **obese**<sup>5</sup> children in modern times could result in the average life expectancy of human beings dropping to 45 years by 2050? Do you think these scientists could be right? Why?
3. The graph on the previous page shows figures for the world. When this graph is broken down into different regions of the world, the figures for South America and Africa show a much lower life expectancy. Can you think of a good reason why the life expectancy in these two regions is so much lower than the worldwide figures?

One of the main reasons for an increase in life expectancy is a better knowledge of what causes various diseases and how to make medicines that will cure or control the illness. Some of the diseases that can make humans sick and even cause their death are found all over the world. Others are more common in certain areas of the world.

The next few units will examine some of the diseases that are most commonly found in Southern Africa. It is important for all people living in this area of the African continent to understand the causes, symptoms, possible cures and **preventative measures**<sup>6</sup> associated with these common diseases.

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<sup>1</sup> **Immunization** (Say: ee myew nigh zay shin) – to make something safe from something else

<sup>2</sup> **Access** (Say: Ack ses) – a way of getting to or reaching something

<sup>3</sup> **Life expectancy** – The number of years that a person is expected to live.

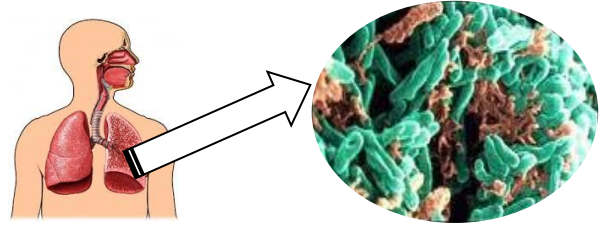
<sup>4</sup> **Decade** (Say: deh kay d) – A period of ten years

<sup>5</sup> **Obese** (Say: Oh bee ss) – Extremely fat

<sup>6</sup> **Preventative measures** (Say: pree vent ah tiv mez uurz) – Things that can be done to stop something before it happens

## Unit 13.1 - Tuberculosis

Tuberculosis is commonly known as TB. It is caused by **bacteria**<sup>1</sup>. The bacterial infection can spread, through the bloodstream, to any organ in the human body. However, it is found most often in the lungs.

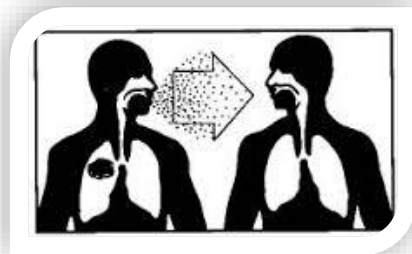


Most people who are exposed to TB never develop symptoms because the bacteria can live in an **inactive**<sup>2</sup> form in the body. But, if the body's **immune system**<sup>3</sup> gets weak then the TB bacteria can become active. In their active state, TB bacteria cause the death of tissue in the organs they infect. The active TB disease can be **fatal**<sup>4</sup> if left untreated.

Symptoms of TB depend on where in the body the TB bacteria are growing. TB symptoms may include:

- A bad cough that lasts 3 weeks or longer.
- Pain in the chest.
- Coughing up blood or phlegm
- Weakness or fatigue.
- Weight loss and/or no appetite.
- Chills or fever.

The bacteria that cause tuberculosis are carried through the air in saliva droplets. This means that the disease is highly **contagious**<sup>5</sup>. The bacteria can also be spread by sharing eating utensils, towels, beds and toothbrushes.



<sup>1</sup> **Bacteria** (Say: back teh ree ah) – tiny forms of life that can only be seen with a microscope (One bacterium, many bacteria)

<sup>2</sup> **Inactive** (Say: een akt hiv) – Not doing anything

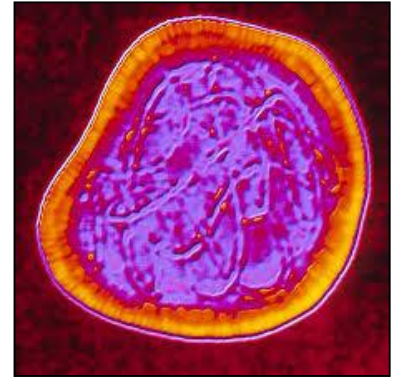
<sup>3</sup> **Immune system** (Say: Ee myoon sis tim) – The cells in the body that help to fight the germs that make us sick

<sup>4</sup> **Fatal** (Say: Fay till) – Deadly

<sup>5</sup> **Contagious** (Say: kon tay jis) – Can be passed from one person to another person

## Unit 13.2 - Measles

Measles is a disease that is caused by a **virus**<sup>1</sup> called Rubeola. In the past, measles infection was very common in childhood. Today, due to immunisation, measles infection is **rare**<sup>2</sup> in developed countries. However, in less developed countries where governments are too poor to provide free immunisation, many children still catch measles and some of them die. The first symptoms of infection with measles are: Fever, tiredness, a runny nose, a cough and sore red eyes.



These symptoms usually last for a few days before a red blotchy rash appears. The rash starts on the face and then spreads down to the body. The rash normally lasts for 4-7 days. One out of three people infected with measles will also experience complications such as ear infections, **diarrhoea**<sup>3</sup> and **pneumonia**<sup>4</sup>.

Measles is usually spread when a person breathes in the measles virus that has been coughed or sneezed into the air by an infected person. Measles is one of the most easily spread of all human infections. Just being in the same room as someone with measles can result in infection. Anyone who comes into contact with measles during the infectious phase and who has not received two doses of vaccine is at risk of catching measles. Luckily, humans can only get measles once.

## Unit 13.3 - Malaria

Malaria is a human blood disease that is caused by a parasite called Plasmodium. A **parasite** is an animal or plant that depends on another creature (a host) for its food and shelter. Unfortunately, the host is often damaged by the parasite and, in many cases the parasite causes the host's death.

<sup>1</sup> **Virus** (Say: Vigh ris) – A microscopic organism that can cause diseases.

<sup>2</sup> **Rare** (Say: rair) – Not often found or seen

<sup>3</sup> **Diarrhoea** (Say: die or hee aah) – Frequent and watery emptying of the bowel (going to the toilet)

<sup>4</sup> **Pneumonia** (Say: new moan ee aah) – A serious infection of the lungs





The Plasmodium parasite is normally transferred into a human host by the female Anopheles mosquito. No other type of mosquito can transfer the Plasmodium virus. But, because it is difficult to tell which mosquitoes belong to the group that are dangerous, it is better to protect yourself from all mosquitoes when you visit any part of Africa where Anopheles mosquitoes are usually found.

The Plasmodium parasite lives in the red blood cells of a human being so it is possible for the malaria parasite can be passed on from one person to the another through organ transplants, shared use of needles/syringes and blood transfusion. An infected mother can also pass malaria on to her baby during birth.

However, people cannot 'catch' malaria from other people just by being near them. You can sit next to an infected person quite safely, with no risk of infection, even if they cough or sneeze. Early stage symptoms of Malaria can be: A high temperature (fever), chills, a headache, sweats, extreme tiredness (fatigue), nausea and vomiting. Other common symptoms may include: A dry cough, back pain, muscle ache, and an enlarged spleen. People get more and more sick as the Malaria parasite multiplies in the blood stream. If people with Malaria do not get special medicine to kill the parasite, they will eventually die.

### **Preventing Malaria**

The two main ways of preventing malaria are: Avoiding mosquito bites and/or taking medicine that makes you immune to the malaria parasite.

#### **Avoiding mosquito bites**

##### **Controlling mosquito populations**

The less mosquitos there are, the less the chances are of catching malaria. Mosquitoes lay their eggs in **stagnant**<sup>1</sup> water so avoid leaving containers like buckets and old tyres lying around – water can collect in them and this will attract mosquitoes.

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<sup>1</sup> **Stagnant** (Say: stag nint) – not moving

## Using Bed Nets

Using special bed nets reduces the opportunity for mosquitoes to bite people while they are sleeping.

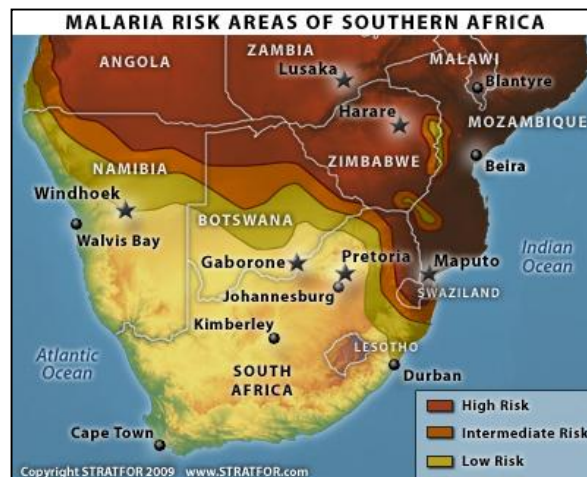
## Mosquito repellent

Skin creams, sprays and bracelets that repel<sup>1</sup> mosquitoes are available and these products can reduce<sup>2</sup> the risk of being bitten. Some companies also make repellents that can be placed in the house to chase mosquitoes away.

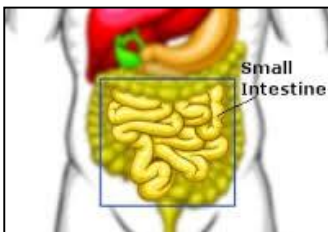


## Anti-malaria medication

Special medicine can be taken when you know you will be visiting a high risk area. This medicine does not stop the parasite from entering your bloodstream, but it can stop the parasite from reproducing<sup>3</sup> in the blood.



## Unit 13.4 – Cholera



Cholera is an infection of the small intestine that is caused by the bacteria called *Vibrio cholerae*. Cholera bacteria are usually found in water or food sources that have been contaminated by **faeces**<sup>4</sup> from a person infected with cholera. Cholera bacteria can also live in polluted rivers and sea water near the coast.

<sup>1</sup> **Repel** (Say: ree pal) – chase away or discourage

<sup>2</sup> **Reduce** (Say: ree juice) – to make something less

<sup>3</sup> **Reproduce** (Say: ree pro juice) – to make more of the same thing

<sup>4</sup> **Faeces** (Say: fee sees) – solid waste products that animals or humans get rid of via the bowels

Shellfish such as lobster, oysters and prawns that are caught in these areas and eaten, raw, have also been known to infect human beings.



The main symptoms of Cholera are watery diarrhoea and vomiting. This may result in **dehydration**<sup>1</sup> and, in **severe**<sup>2</sup> cases, greyish-bluish skin. If the dehydration becomes severe, it can cause death.

Cholera is most likely to be found and spread in places with poor water treatment or sanitation. People who live in or who are visiting areas where Cholera is common or has occurred should take the following precautions to prevent infection:

- Drink only bottled, boiled or chemically treated water and bottled or canned fizzy drinks.
- Avoid tap water, fountain drinks and ice cubes.
- Wash your hands often with soap and clean water.
- Eat foods that are factory packed or that are freshly cooked and served hot.
- Do not eat raw and undercooked meat and seafood or unpeeled fruit and vegetables.
- **Dispose**<sup>3</sup> of faeces in a sanitary manner to prevent **contamination**<sup>4</sup> of water and food sources.

## Unit 13.5 – Read about Reducing the Risk of Health Problems

Many organisms, some of which can only be seen with the help of a microscope, live in and on our bodies. Most of these organisms are normally harmless or even helpful. However, under certain conditions, some organisms can cause diseases. Infectious diseases are illnesses that can be caused by organisms such as bacteria, **fungi**<sup>5</sup>, viruses or parasites.

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<sup>1</sup> **Dehydration** (Say: dee high dray shin) – loss of water

<sup>2</sup> **Severe** (Say: s a veer) – very serious

<sup>3</sup> **Dispose** (Say: dis poh z) – Get rid of

<sup>4</sup> **Contaminate** (Say: con tam ee nate) – To make something impure, dirty or polluted

<sup>5</sup> **Fungi** (Say: fun guy) – A group of organisms that include moulds, yeasts, mushrooms, slime moulds and water moulds

Here is a list of some of the more common human diseases and the type of organism that causes them.

Caused by bacteria	Caused by viruses	Caused by fungi	Caused by parasites
Anthrax Botulism Cholera Meningitis Pneumonia Tuberculosis	HIV/AIDS Hepatitis Influenza Rabies Measles	Beriberi Ringworm Fungal Meningitis Psoriasis	Sleeping sickness Giardiasis Malaria Pork tapeworm disease Roundworm disease

Some **organisms**<sup>1</sup> enter our bodies and, once they have done so, they cannot move out of the body easily in order to find a new **host**<sup>2</sup>. However, other organisms can easily be transmitted (passed on) from one host to another. We call the diseases caused by these organisms 'infectious diseases'.

Some infectious diseases are transmitted by bites from insects or animals. African sleeping sickness, for example, is a disease spread by some tsetse flies that carry a parasite called *Trypanosoma brucei rhodesiense*.



Other infectious diseases are caused by eating contaminated food or water or being exposed to organisms in the environment. Many infectious diseases are air-borne (we breathe them in). Some very dangerous diseases can be transmitted when **body fluids**<sup>3</sup> are exchanged, e.g. through blood transfusions or sexual intercourse.

The number of diseases that can be **contracted**<sup>4</sup> by humans and passed on to other humans is **overwhelming**<sup>5</sup>. This means that making our environment totally disease free is not possible. However, it is possible to control the spread of infectious diseases through healthy behaviour and action. For the average person, following some basic guidelines may reduce the chances of contracting a disease. Follow these tips to **decrease**<sup>6</sup> your risk of becoming infected or infecting others:

<sup>1</sup> **Organisms** (Say: or gan izm) – a living creature

<sup>2</sup> **Host** (Say: hoh st) - an animal or plant on (or in) which an organism lives

<sup>3</sup> **Body fluids**: (Say: body flu wids) – liquids inside the body, e.g. blood, urine and saliva

<sup>4</sup> **Contracted**: (Say kon track tid) – to catch a disease by being exposed to something infectious

<sup>5</sup> **Overwhelming**: (Say: over well meeng) – a very large amount or quantity

<sup>6</sup> **Decrease**: (Say: dee krees) – to get less

- **Wash your hands.** This is especially important before and after preparing food, before eating and after using the toilet. Try not to touch your eyes, nose or mouth with your hands, as this is one way that organisms can enter the body.
- **Get vaccinated.** Immunization helps to fight harmful organisms and can drastically reduce your chances of contracting many diseases.
- **Stay home if you are infected.** Don't leave the house, except to go to the doctor, if you think you have an infectious disease.
- **Prepare food safely.** Keep counters and other kitchen surfaces clean when preparing meals. Don't let cooked food remain at room temperature for long periods of time – put the food into the fridge (most organisms can't survive in cold temperatures).
- **Don't share personal items.** Use your own toothbrush, comb and razor. Avoid sharing drinking glasses or eating utensils.
- **Travel wisely.** If you're traveling out of the country, talk to your doctor about any special vaccinations you may need.

### Activity 13.5.1

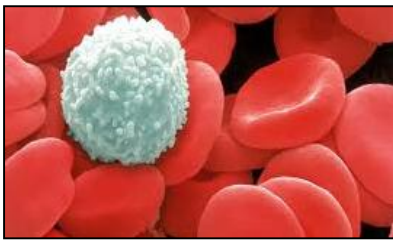
Your teacher will give you a copy of an activity worksheet. Write the date and heading (Unit 13.5.1) in your LS book and paste the worksheet in. Complete the activity:

*Do you think you would make a good doctor, nurse or health worker? The people in the pictures do not know much about common diseases in South Africa and how they are spread. Help to educate them by filling in a suitable response to their question.*

## Module 14: HIV and Aids Education

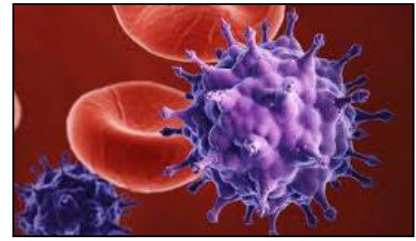
The white blood cells in the body of a human being are responsible for fighting organisms that could harm it – they form the immune system of a human being. Without the help of these 'soldier' cells to fight bacteria, viruses and parasites, the human body cannot stay healthy.

The Human Immuno-Deficiency Virus (HIV) is an organism that destroys the white blood cells and leaves the human body defenceless.



A white blood cell

An HI Virus cell



HIV and AIDS are terms that are often used together but they are not the same thing. HIV is a virus. AIDS is a medical syndrome (group of illnesses) caused by the virus HIV. You can have HIV without having AIDS, and many people live for many years with HIV without ever developing AIDS. But, if you have AIDS, you have to have HIV.

Here is some information about what these acronyms (words shortened to letters) stand for:

Letter	What does it stand for?	What does it mean?
<b>H</b>	Human	This virus can only infect human beings.
<b>I</b>	Immuno-Deficiency	The effect of the virus is to create a deficiency (a failure to work properly) within the body's immune system.
<b>V</b>	Virus	A microscopic organism that can cause diseases.

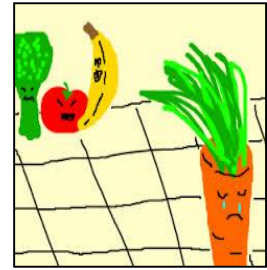
Letter	What does it stand for?	What does it mean?
<b>A</b>	Acquired	It is a condition one must acquire (get infected with). It is not something hereditary (something you inherit from your parents).
<b>I</b>	Immune	It affects the body's immune system, the part of the body which usually works to fight off germs such as bacteria and viruses.
<b>D</b>	Deficiency	It makes the immune system deficient (makes it not work properly).
<b>S</b>	Syndrome	Someone with AIDS may become infected with a wide range of different diseases.

## Unit 14.2 – Prejudice and Stigma

**Prejudice** is an opinion about or fear of something that is based on very little logic or personal experience. This illogical opinion or fear is often directed at culture, colour, gender or nationality. For example, if hospital hires only male doctors and rejects all qualified women who apply for this job then it is possible that the hospital is prejudiced against women.



**Stigma** means that something or somebody has a bad reputation or a negative label. For example, if a person has been to jail, people might say things like: *That one, he is bad and violent. Stay away from him.* They might not even know what he went to jail for but they stigmatise him along with all criminals.



For various reasons (mainly fear and ignorance), the HI Virus (and AIDS), has developed a bad reputation. This reputation has developed for two main reasons:

1. Many people still think that they can become infected by the HI Virus simply by being close to or touching somebody with the virus so they avoid or exclude people with HIV – a fancy way of describing this behaviour is to say that people with HIV or AIDS are ostracised.

***Medical research has proved, beyond a doubt, that this is not true. But, people are still scared that they will catch the virus and people who are HIV positive are often stigmatised and treated in a prejudiced manner, e.g. their friends no longer invite them out; they get fired or they can't find work; people say mean things to them or about them.***

2. Many people still think that people with HIV did something bad or illegal and that is why they have become infected. They judge HIV positive people and don't want to 'mix with that type of person'.

***Research shows that many people who have become infected are not drug addicts or criminals.***

The South African Constitution tells us that everyone has the right to their dignity (their feeling of self-worth). When people with HIV are treated in a prejudiced way, their constitutional right is being denied – the people that treat them in this way are breaking the laws of our country. Remember, the HI Virus can only be passed on to another person by coming into direct contact with an infected person's body fluids, such as blood.

**HIV cannot be passed on** by hugging somebody.

**HIV cannot be passed on** by touching somebody.

**HIV cannot be passed on** by sharing eating utensils, cups or plates.

**HIV cannot be passed on** by sitting close to somebody.

**HIV cannot be passed on** by using the same toilet as somebody.

## Unit 14.3 – Ways to Change Attitudes

When ignorant people think of HIV/AIDS they usually think that the person became infected because they

- are **homosexual**<sup>1</sup>,
- are **promiscuous**<sup>2</sup>,
- are careless about who they have sex with or
- they are drug addicts.

While this might be true in some cases, well informed people know that many people who are HIV positive did not become infected because of their lifestyle or careless approach to sexual relationships. Even for those people who became infected because they were careless, living with HIV and the certainty that they will eventually die from AIDS is a scary thing to deal with – they need all the support and understanding they can get. Well informed people don't judge people with HIV/AIDS or ostracise them.

The best way to change attitudes and prejudice about HIV/AIDS is by making sure that people are well informed about the virus.

## Unit 14.4 – Reading about Attitudes to HIV and AIDS

### *Born with HIV: A Rough Beginning*

*Cecilia is 16 years old. She is HIV positive and has been taking special medication since she was born. She was infected, at birth, by her mother, who wasn't aware that she was HIV positive. Cecilia's mother got the virus from her father. Cecilia's father died from AIDS three years after she was born.*

*As a child, Cecilia was unaware of her HIV status – she didn't even know what HIV/AIDS was.*

<sup>1</sup> **Homosexual** (Say: ho mo sex you will) – people who are attracted to people of their own gender

<sup>2</sup> **Promiscuous** (Say: prim iss kew us) – having many different sexual partners

*She often heard the word HIV at doctor's appointments and started wondering why she was taking medication.*

*Her curiosity grew, and when she was in Grade 5, she asked her mom if she was HIV positive or negative. Cecilia's mother told her the truth and assured her that as long she kept taking her medicine, she'd be fine. "I wasn't really old enough to completely understand at the time," Cecilia says.*

*Her mother never told her she should be ashamed or secretive, so in sixth grade Cecilia told her best friend that she was HIV positive.*

*"I still didn't really understand what HIV was yet," she recalls. "To me it was like telling her that I had asthma. I didn't see the big deal. That ended up kind of blowing up in my face."*

*Within two weeks, the entire school knew, Cecilia says. People called her names and some students threatened to beat her up. "That's when I started realizing that not everyone was going to be completely fine with me being HIV positive." Cecilia says that none of the students who teased and threatened her received anything more than a verbal warning for their bullying and threats.*



*Students weren't the only people guilty of ignorance and HIV stigma. Early in her Grade 7 year, a soccer coach asked her whether it was true that she had HIV. When she told the coach that it was true, the coach asked her to be on the team because he thought she would be able to score goals easily if players from the other team were too scared to touch her.*

*Cecilia's mother was shocked by the coach's behaviour. When she told the school Principal, he said he would talk to the coach but that he couldn't promise to protect Cecilia from everybody at the school. Cecilia's mother home schooled her for the rest of her Grade 7 year.*

*When Cecilia went to High School, the school Principal made sure that all Life Skills teachers taught students the facts about HIV and AIDS. She also sent information pamphlets home to parents. Finally, she had a special assembly at which she told the students that they would be expelled if they were found to be stigmatising people with HIV or treating them with prejudice.*



*So far, this combination of education and consequence has helped Cecilia to enjoy her first few years at High School. She has many friends who care about her. She is on the debating team and is captain of the hockey team.*

### Activity 14.4.1

Work in groups of 3-4. Discuss/Answer these questions in preparation for a class discussion.

1. How long has Cecilia been HIV positive?
2. Why doesn't she have AIDS?
3. Do you think Cecilia's mother should have explained to her what being HIV positive meant?
4. Do you think Cecilia should have kept her HIV status a secret?
5. Why do you think Cecilia's Grade 7 school mates treated her so badly when they found out that she was HIV positive?
6. Do you think the coach made an accurate statement when he said that players from the other school's team would be too scared to touch her? Explain your answer.
7. Which of the two school principals was more informed about HIV and AIDS? Give a reason for your answer.
8. The Principal of the High School used education and consequence to stop prejudice. Describe what you think the phrase 'education and consequence' means.

## Module 15: Substance Abuse

### Unit 15.1 – What is Substance Abuse?

**Substance abuse** is also known as drug **abuse**<sup>1</sup>. Substance abuse is the use of a substance (drug) in ways that are harmful to the person using the substance or other people.

Usually, people who abuse drugs do so because it gives them a **temporary**<sup>2</sup> feeling of well-being or happiness.

### Unit 15.2 – Legal and Illegal Drugs

The use of some drugs is **legal**<sup>3</sup> while the use of others is **illegal**<sup>4</sup>. The abuse of both legal and illegal drugs can be harmful.

#### Activity 15.2.1

Work in groups of 2-3. Discuss the pictures and decide whether the substances are legal or illegal for Grade 5 children to use. Report back to the class.



Marijuana



Headache tablets



Tobacco



Cocaine



Sugar



Caffeine



Alcohol

<sup>1</sup> **Abuse** (Say: ab you ss) – the use of something in a bad way or in an improper way

<sup>2</sup> **Temporary** (Say: tem pour airy) – something that does not last for long or that is not permanent

<sup>3</sup> **Legal** (Say: lee gull) – it is not a crime

<sup>4</sup> **Illegal** (Say: ee lee gull) – it is a crime and you can be fined or go to jail

The pictures with a purple border are legal for adults to use. The pictures with a pink border are legal for adults and children (even if they are not very healthy). The pictures with a red border are illegal. However, there are many other substances that adults are not allowed to use because it is against the law.

There are many reasons why some drugs are illegal. Here are three important ones:

- a) Use of the substance could harm or kill the person using or abusing the substance.
- b) Use of the substance makes the person behave in a way that puts him/her in danger or endangers somebody else.
- c) These substances are very addictive and people find it difficult to stop using them even when they know it is bad for them. People who become addicted to expensive drugs need money to feed their habit – their need for money to buy the drugs might make them turn to crime.

The drugs listed below are all illegal and very addictive. If anybody ever offers you any of these drugs...**SAY NO!** If anybody ever tries to sell you any of these drugs...**REPORT THEM TO AN ADULT THAT YOU TRUST.** If you know of somebody who is using these drugs...**REPORT IT TO AN ADULT THAT YOU TRUST.**

### **Marijuana** (Say: mah rah wanah)

Marijuana (DAGGA) is a green or grey mixture of dried, shredded flowers and leaves of a plant called Cannabis. The drug contains chemicals called cannabinoids and these cannabinoids affect the brain, heart and lungs. There are over 200 slang terms for marijuana including "pot," "herb," "weed," "boom," "Mary Jane," "gangster," and "chronic." Use of marijuana damages the brain's ability to remember things. The drug is usually smoked like a cigarette and it makes people feel quite relaxed. People who become addicted and use the drug for a long time become lazy and disinterested in life. Sometimes, however, the drug makes people violent and aggressive.





## Cocaine (Say: coke ain)

Cocaine is a very addictive drug made from the leaves of the coca plant. The powdered form of cocaine is either inhaled through the nose (snorted), where it is absorbed through the nasal tissue, or dissolved in water and injected into the bloodstream. Cocaine makes people feel very happy for a **very short time**. They have lots of energy and are usually very talkative.



### Unit 15.3 – Negative Impact of Drugs on the Body and Mind

Different drugs do different things to the body and the brain. Some drugs slow your brain down and make you feel relaxed and sleepy. Drugs that do this are called **depressants**. Alcohol and marijuana are examples of depressants.

Other drugs speed up the messages to the brain and nervous system. These drugs are called **stimulants**. They increase your awareness and make you experience things in a more intense way. Caffeine, nicotine, tik, cocaine and ecstasy are examples of stimulants.

The impact of drugs on the way you feel or think is usually only experienced for a short while – minutes or hours. The damage that drugs do to your body and brain lasts for a lot longer. People who abuse drugs (legal and illegal) are ten times more likely to end up in jail or the hospital or the **mortuary**<sup>1</sup>.

Because most of the drugs that people use only make them feel better for a short time, people who become addicted to drugs like the feeling of temporary well-being so much that they begin to use the drugs regularly. After a while, their body and mind become so dependent on the drugs that they can't do without them. The most serious problem with this kind of drug use is that the chemicals and substances in the drug often damage the human body.

<sup>1</sup> **Mortuary** (Say: more chew erry) – a building where dead bodies are kept before being buried

An example of this is cigarette smoking. The substance in tobacco that makes people feel good, and that is addictive, is called nicotine. In order to get the nicotine into the bloodstream, the tobacco is usually smoked. Along with the nicotine, some other very harmful substances also enter the body, e.g. carbon monoxide (like the fumes from a car's exhaust) and tar (a sticky black substance similar to the stuff tar roads are covered with).

Healthy lungs



A smoker's lungs



## Unit 15.4 – Reading

*A website called Real Drug Stories has a blog for young people who have friends that are abusing substances. Here is what some of them blogged:*

**A 10-year old from Slipstream School in Gauteng submitted:**

*Someone I'm close to has been smoking the past year. I haven't told anyone because I don't want him to get into trouble at home. I'm glad he hasn't smoked around me or tried to get me to smoke as well, but I'm not sure what to do about it.*

**A 14-year old from C.H.Yoe School in Limpopo says:**

*I have a friend who is...just out of control. If he finds a pill...no matter what it is he will take it. I am trying to get him to alter his foolish ways. What do you suggest I do to help him?*

**A young boy from a school in Kwatema writes:**

*About two months ago, one of my friends, Thembile, started hanging around with a group of children who sniff glue. He says that the first time he tried it, it burnt his eyes and nose but that now he really likes it because it makes his head feel light. He*

*also says that he doesn't want to hang around with me anymore because I am a goody goody – he likes to feel he is part of the rebel group at school. He used to do well at school but now he is failing. His parents and the teachers at school can't understand what has happened. I want to tell them, but I am scared that Thembile and his friends will beat me up for snitching. What should I do?*

### **Tips for Helping a Friend**

It can be really upsetting and scary to have friends who are struggling with drug abuse and addiction. Here are some tips for helping them:

1. Start by being a good friend, which you probably already are because you're concerned. As a good friend, you're someone who can be trusted to provide good advice and listen when your friend needs to talk.
2. Educate yourself about drugs and alcohol and the problems they can cause. Then, you can give your friend the facts and refer your friend to resources to help him or her learn more. A good place to start is on the **NIDA for Teens** Web site. This site includes fact sheets about many different drugs and their effects.
3. Encourage your friend to talk to an adult that he or she can trust—maybe a teacher, coach, or a parent of another friend. If your friend doesn't feel comfortable talking to a trusted adult but is ready to get help, then you can try to find drug abuse treatment centres in your community (some are available just for children). They can provide confidential support and advice.

## **Formal Assessment: Examination**

Your assessment task for this term is a Formal Examination. The exam will be set on all of the work that you have covered during the year. However, your teacher will give you some guidelines on which information you should pay special attention to. Your teacher will also revise and consolidate some of the more complicated topics that you have dealt with this year. If there is anything specific that you would like him/her to explain or revise, then all you need to do is ask. Your teacher should be available to help you prepare for the exam.

**Study Tip: Move Before You Study**

Exercising your body may help your brain. Moving before you start studying can help get your brain ready to study.

**Study Tip: Pick Your Study Spot**

The important thing is to find a place where you'll pay attention.

**Study Tip: Don't Cram for Tests**

When you have to remember information, it's best to go over it a many times over a few days. Don't wait and try to cram everything into your head the night before.

**Study Tip: Listen to Music While You Study**

Some people study better with music because it helps them ignore other sounds around them. Be sure to pick music that won't have you singing instead of paying attention to your studying. Instrumental music from the Baroque period is excellent music to study by. Bach, Handel and Vivaldi are examples of Baroque composers.

**Study Tip: Take Breaks While You Study**

Taking a short break might help you concentrate. When you work on something for a long time, you may start thinking about other things. Be disciplined - you can't work for 10 minutes and take a 20-minute break!

**Study Tip: Test yourself**

Find previous exam papers to check how much you know. If you can't find any then set your own exam or ask a friend or parent to set one for you.

**Study Tip: Find shortcuts**

Find clever ways to help you remember long lists, spelling or dates. You can use abbreviations, rhymes or pictures to do this.

Example: To help remember the 4 cardinal points (North West, South East) use the rhyme:

**Now We Shall Eat**

