



Lesson plans  
Grades 4 and 5



## Grade 4

List of warm up and cool down exercises

Lesson 1

Worksheet for lesson 1

Lesson 2

Worksheet for lesson 2

Lesson 3

Worksheet for lesson 3

Lesson 4

Worksheet for lesson 4

Lesson 5

Worksheet for lesson 5

## Grade 5

List of warm up and cool down exercises

Lesson 1

Worksheet for lesson 1

Lesson 2

Worksheet for lesson 2

Lesson 3

Worksheet for lesson 3

Lesson 4

Worksheet for lesson 4

Lesson 5

Worksheet for lesson 5



## Warm up exercises

### 1. Warm up exercise one (5 minutes)

Play some music and ask the learners to dance to the music.

- Each time you stop the music they must stop and hold the position for a few seconds. (This can be quite fun as some strange positions emerge)
- After two minutes or so ask the learners to find their pulse
- Instruct the learners to measure their heartbeat for 10 seconds
- Ask them if it's higher now than it was at the start of the lesson.

Repeat the activity, this time ask learners to work in pairs and to take turns copying each other's movements. Measure their heart rate again at the end of two minutes.

### 2. Warm up exercise two (5 minutes)

Divide the class into groups of 8 to 10 learners.

- Select one volunteer per group to be the leader
- The leader has to walk, skip and dance. Encourage them to move in different directions and to use as much of the space you have allocated for the lesson as possible.
- The rest of the group has to follow the leader
- Change the leader five times (1 minute per leader).

### 3. Warm up exercise three (5 minutes)

This warm up exercise is best suited to lesson five.

Divide the learners into groups of six to eight, depending on the number of balls you have.

- Give each group a ball
- The aim of the game is to keep the ball in the air and not to let it touch the ground
- The learners will stand in a circle
- When the ball comes their way the first time, they must punch it back in the air from a standing position. After that, they will kneel down (one knee touching the floor)
- They must stay in this semi-kneeling position until they have punched the ball in the air a second time
- Then they must kneel with both legs on the ground and stay like this until they punch the ball a third time
- After this, they must lie on their backs for the fourth punch and return to standing position afterwards. When lying on their backs, the learners can use their legs to kick the ball back in the air.

If the ball touches the ground, the game starts from scratch, with all of the learners standing up.

## Cool down exercises

### 1. Cool down exercise one (5 minutes)

This exercise is best suited to lesson one.

- Ask the learners to walk around the circuit slowly three or four times (for about 2 to 3 minutes)
- Do the following stretches:



Quadriceps



Calf



Shoulder (front)



Shoulder (back)

The learners must hold each stretch for 20 seconds and repeat them twice on both sides.

### 2. Cool down exercise two (5 minutes)

- Ask all the learners to walk in a circle
- While walking, ask them to do the following stretches:



Back shoulder



Front shoulder



Tricep

The learners must hold each stretch for 20 seconds and repeat them twice on both sides.

## Lesson one: Heart rate and physical activity (40 minutes)

### 1. Outcomes

By the end of this lesson, the learners should be able to:

- measure their pulse and recognise the difference in their heart rate after performing activities of different intensities
- recognise the link between their increased heart rate and increased exercise intensity
- explain the purpose of doing cardiovascular activities and give some examples of these activities.

### 2. Teacher's corner

The aim of lesson one is to teach learners to measure their own heart rates and recognise that their heart rates increase with increased intensity activity.

#### Cardiovascular training and why your heart rate increases

You may want to start the lesson in your classroom. Write the word 'pulse' on the board and ask your learners what they understand by this term. Teach them that the pulse is an indication of a heartbeat and therefore can be used to measure how fast their heart is beating. Our heart rate changes as we do different types of activities of different intensities.

By grade 4, the learners should be familiar with the various components of an exercise session. Help them to understand that their heart rate should be lower during the warm up than during the main activities of the lesson.

Learners also need to be taught that cardiovascular activities strengthen the heart and make them fitter. Give them examples of cardiovascular activities – activities that use large groups of muscles and that we do for at least a few minutes at a time. They include walking, running, skipping, jumping, swimming, cycling, skateboarding, roller-blading and playing soccer.

Remember that the suggested length of each activity is a guide and you can increase it if the learners are enjoying themselves.

### 3. Activities

For lesson one you'll need the following equipment:

- Whistle
- Stop watch
- Music system such as a CD player
- Dance CDs (If you are unable to access a music system, use drumming and clapping for the dance activity)
- Paper and pencils (one pencil for each student to record their heart rate at various stages of the lesson)
- A large flat area, such as a field or a netball court
- Have either a big clock that all the learners can see or make sure that at least one learner per pair has a watch (or any time piece).

#### Activity one: Finding the pulse (5 minutes)

Start by teaching learners to find their pulse and measure it.

Place two fingers on the opposite wrist as shown below.



The fingers should be on the thumb side of the wrist, diagonally behind the small bone.

- Each time you feel a slight bump (your pulse), it's a heartbeat
- Ask the learners to count their pulse for 10 seconds
- Ask them to count their partner's pulse.

Note that we only measure the heart rate for the first 10 seconds after an activity because it slows down very quickly when you've stopped exercising.



## Grade 4

### Activity two: Warm up (5 minutes)

Choose a warm up activity from the list of warm up and cool down exercises.

### Activity three: Circuit (10 minutes)

You should have a small circuit marked out in a large flat area such as a field or a netball court for activity three. The circuit should have several stations at which the learners do a specific activity.

- The learners need to work in pairs
- More than one pair can be at the same station at a time
- The learners need to measure their own and their partner's heart rate after doing the activity at each station (for 10 seconds) and record it on the paper provided
- Ensure you give the learners enough time to find their pulses and their partner's pulses
- Blow the whistle each time learners need to move from one station to the next
- Ensure that the learners move in a clockwise direction
- The various circuit stations could include:
  - Run between two lines (about 10m apart) as fast as you can. Repeat.
  - Do 10 sit-ups
  - Balance on one leg for 10 seconds
  - Do 10 star jumps
  - Stand on your toes for 10 seconds.

#### Tips for activity three:

- Set up the circuit beforehand
- Use instruction cards to remind the learners of each station's activity.

### Activity four: Tag, you're it (5 to 8 minutes)

Activity four is a game of tag. The learner who is 'it' needs to touch another learner to make that learner 'it'. The aim of the game is not to be tagged and become 'it'.

- Divide the learners into three groups (depending on the size of your class, aim for about 10 learners per group)
- One person is 'it' and has to touch one of the other players to make them 'it'. They in turn then touch someone else and so on
- Play this game on a large field or playing area about the size of a soccer field or school quad
- Each time you blow the whistle, the learners need to stop and measure their pulse. They must record their most recent pulse reading on the sheet provided.

#### Tips for activity four:

Don't blow the whistle too often as it may disrupt the flow of the game and the learners might struggle to find their heart rates under pressure.

To add variation, you can have more than one person being 'it' at a time.

### Activity five: Cool down (5 minutes)

Choose a cool down activity from the list of warm up and cool down exercises.

## 4. Wrap up (2 to 5 minutes)

Revise what the pulse is and which types of activities can make your heart beat faster or slower. Remind the learners how to measure their heart rate.

Introduce the worksheet for lesson one to the learners.

Name \_\_\_\_\_

## Worksheet: Grade four lesson one

### Task one: Measure your heart rate

Work in pairs.

Get your partner to measure your heart rate (for 10 seconds), before exercise and at each station, and record them in the table below.

	Heart rate before exercise		Heart rate after exercise	
	Your heart rate	Your partner's heart rate	Your heart rate	Your partner's heart rate
Run				
Sit-up				
Balancing				
Star jumps				
Stand on toes				

#### Questions:

1. What is a pulse? \_\_\_\_\_  
\_\_\_\_\_
2. Which activity resulted in your highest heart rate? \_\_\_\_\_  
\_\_\_\_\_
3. Which activity resulted in your lowest heart rate? \_\_\_\_\_  
\_\_\_\_\_
4. Why is it important to exercise so that your heart works faster? \_\_\_\_\_  
\_\_\_\_\_

## Task two: Measure a friend's heart rate

Get your partner to do the following activities:

- Balance on one leg for 10 seconds
- Walk for one minute (this can be on the spot, around your yard or around the block depending on the amount of space you have available)
- Do five sit-ups
- Do five jumping jacks
- Sit down for one minute
- Jog or run or skip for one minute.

Measure their heart rate for 10 seconds before and after each activity.

Record their heart rate on the graph on the previous page.

Does their heart rate follow a similar pattern to yours? \_\_\_\_\_

Write down the activities that caused their heart to beat faster.

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## Lesson two: Muscle strength (40 minutes)

### 1. Outcomes

By the end of this lesson learners should be able to:

- understand and explain what strength training is
- identify activities that require strength
- be able to throw a shot-put, even if it's only a short distance
- identify two ways in which muscle strength can be improved.

### 2. Teacher's corner

The aim of lesson two is to teach learners about strength, which is another component of physical activity. See the chapter in the teacher's information guide that highlights strength as a component of fitness and the section on strength training for children.

#### Technique for throwing a shot-put

Make sure you know the technique properly before you teach the learners. For this grade and level, you can apply the following methods. Although the methods are technical, they have been simplified to for the learners.

Hold the shot-put at the top of your palm, gently resting on the fingers and supported by the thumb.



Push the shot-put against your neck, under the ear and near your chin. Keep the arm perpendicular to the ground.



Place your right foot against the front of the throwing ring so that you are standing sideways to the direction in which you would like to throw. Your right foot should be near the centre of the ring.

To start the throw, twist your right leg and torso towards the field. As you twist your torso, bend the knees and push the shot-put as hard as possible towards the field.

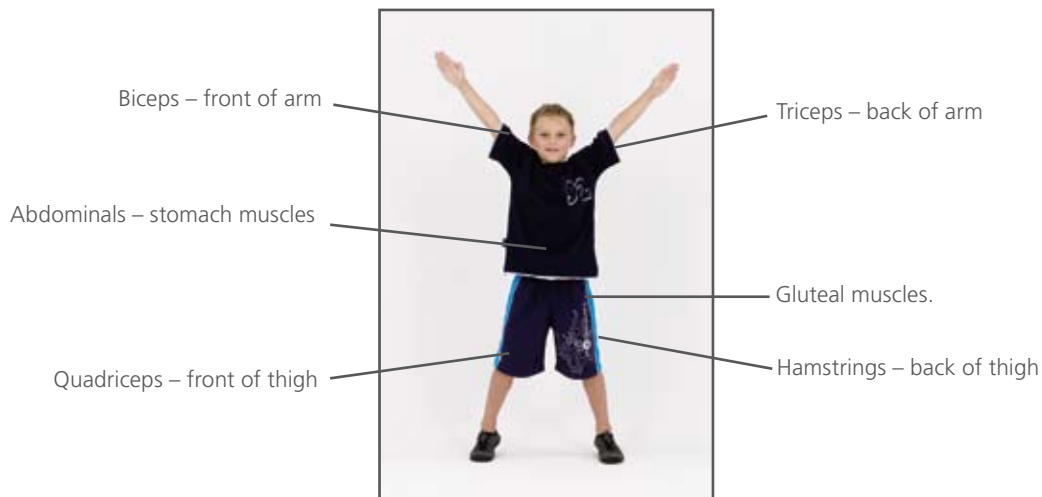
### 3. Activities

For lesson two you'll need the following equipment

- Large, flat area – preferably grass
- Cones or markers – at least eight if you have four groups in your class
- Whistle
- Rope at least four metres long and a piece of string
- Home-made dummy shot-put (must be made before the lesson). Tightly squeeze pages of newspaper into balls of about the same size as a shot-put
- Shot-puts or medicine balls.

#### Activity one: Muscles and strength (5 minutes)

Using the diagram below, show the learners the location and names of the following muscles:



Explain that in today's lesson, you will explore various ways of increasing muscle strength and why muscle strength is important.

#### Activity two: Warm up (5 minutes)

Choose a warm up activity from the list of warm up and cool down exercises.

#### Activity three: Partners (8 to 10 minutes)

Activity three consists of four activities that learners must do in pairs. Start by dividing the class into pairs.



### Cone running

- Set up a row of four cones, spaced two metres apart from one another. Create two lines at each end of the row of cones. (five metres away from the cones)
- The learners must stand behind a line, five metres from the first cone
- Partner A aims to reach a line five metres after the last cone before getting caught by partner B, who can only start chasing once partner A reaches the first cone.
- The learners must weave between the cones while they run



### Tug of war

- Try to match pairs of learners of similar size and strength with each other to compete in tug of war
- Tie a piece of string in the middle of the rope
- Each pair must start behind a mark in the ground; the marks must be two metres apart
- The pair that forces the string in the middle of the rope to cross over their mark in the ground wins
- Ensure the learners stay on their feet during the tug – if a learner falls over, that pair forfeits.



### Wheel barrow

- Partner A must face down and prop him- or herself up with his or her hands on the ground, placed shoulder-width apart. His or her arms must be straight. Partner A's abdomen must be lifted and his or her body must be parallel to the ground to prevent the lower back from bending.
- Partner A will then use his or her arms to walk forward
- Allow the partners to walk like this between two markers and then swap positions.
- Allow each pair a practice round. The learners must move slowly as the emphasis is on doing the activity correctly rather than quickly.



### Leap frog

- Partner A should crouch down with partner B standing behind A. They must both face the same direction.
- Partner B places his or her hands on partner A's shoulders
- Partner B must push him or herself over partner A by pushing on A's shoulders and leaping
- The partners should then swap roles so A can leap over B.

At the end of this activity, explain to the learners that the activities required muscle strength and coordination. Ask them which muscles were used for each activity:

**Cone running:** Legs (calf muscles, quadriceps and hamstrings)

**Tug of war:** Arms (biceps and triceps), back, chest and shoulder muscles are used to tug. To keep their footing, learners use their legs (calf muscles and hamstrings).

**Wheel barrow:** Partner on ground – arms (biceps and triceps), shoulders, back, abdominal muscles and chest. Partner carrying legs – arms (biceps and triceps) and abdominal muscles. Legs (calf muscles, quadriceps and hamstrings).

**Leap frog:** Partner crouching – legs (quadriceps) and arms (triceps). Partner leaping – arms (triceps), shoulder muscles and legs (calf muscles and quadriceps).



## Grade 4

### Activity four: Shot-put (10 minutes)

Set up a line or ring, using cones, that the learners should throw the shot-put from into a wide open space. Set up a separate marker that the learners must run to and come back before they throw the shot put. This marker must not be in the direction the learners will throw the shot-put.

- Give each learner the homemade dummy shot-put and explain the correct technique for throwing the shot-put (see the teacher's corner for details)
- Have each learner practice throwing their dummy shot-put
- Depending on the availability of medicine balls or shot-puts, divide the learners into groups. Try not to have more than five learners per group.
- The learners must line up, one behind the other, and run to and from the marker.
- Once they get back to the starting position, they must throw their new shot-put.

#### Tips for activity four:

- Set up the cones and markers before the lesson
- Use one of the learners as a model to show the muscle groups in activity one. Rather do this at the beginning of the lesson so that when they are doing the activities, they know which muscles are working.
- Blow the whistle each time you want the learners to change the activity
- The running to and from the marker simply adds some variation to the activity and provides the learners with cardiovascular exercise.

### Activity five: Cool down (5 minutes)

Choose a cool down activity from the list of warm up and cool down exercises.

## 4. Wrap up (5 minutes)

Revise the importance of muscle strength and go over the proper names for the groups of muscles identified in activities one and three. Introduce the learners to the worksheet for lesson two.

Name \_\_\_\_\_

## Worksheet: Grade four lesson two

### Task one: Word search

Find the following words:

Quadriceps

Bicep

Abdominal

Fitness

Shot put

Hamstring

Tricep

Muscle

Active

Strong

T	D	B	A	C	T	I	V	E	U
R	O	M	B	V	A	N	O	T	P
I	T	H	D	B	U	E	R	S	G
C	R	A	O	T	I	T	T	F	N
E	O	M	M	T	R	C	H	J	O
P	N	S	I	R	N	S	E	L	R
F	I	T	N	E	S	S	E	P	T
U	E	R	A	N	E	E	T	B	S
N	S	I	L	B	R	B	H	A	E
A	A	N	M	U	S	C	L	E	A
T	N	G	S	H	O	T	P	U	T
S	P	E	C	I	R	D	A	U	Q

### Task two: Muscle groups

Match the muscle group to the action:

Ask two family members or friends which sports and activities they play or played when they were at school. List these activities, if they needed strength and which muscles they used.

	Activity	Strength needed?	Muscles Used
	Example: Rowing	Yes	Shoulder and back muscles, biceps, triceps and pectorals.
A			
B			

### Lesson three: Cultural food fare (30 to 40 minutes)

Lesson three consists of one activity that needs to be done over two to three lesson periods

#### 1. Outcomes

By the end of this lesson the learners should be able to list three different cultures in South Africa and a food typically eaten by each of the three cultures.

#### 2. Teacher's corner

Lesson three provides the learners with an opportunity to investigate menus from various cultures and teaches them health promotion. It's important to make learners aware of the different cultures within their own learning environments.

##### Indigenous Africans

Indigenous Africans have thrived on diets of unprocessed grains such as millet, maize, sorghum, wild fruits and vegetables for thousands of years.

Occasionally their diet would include meat in relatively small quantities. Beef was rare – cattle were seen as a form of wealth, not to be consumed as food. But when they were eaten, no part of the animal was left untouched – from the head (skop) to the feet (trotters or amaqina) to the insides (tripe – in Sesotho, mala and mogudu). Goat meat was preserved for special occasions. Chicken was eaten in great quantities as it was proven to be a very good source of protein.

Delicacies included amasonja, mopani worms, locusts and flying ants. One consistent feature in a meal was the starch base. Registered dietitian, Dr Ingrid van Heerden, believes that people who lived on more traditional diets, like our rural ancestors, hardly ever suffered from the diseases associated with western lifestyles.

##### South African cultures

South Africans are made up of many different ethnic and racial groups, which creates a very diverse cultural mix. The list of foodstuffs below represents ethnic dishes of particular groups. This list is not complete and represents only a sample of South African food.

- **Achaar:** a relish made from mango, oil and spices. It was brought to South Africa by migrant Indians.
- **Amanqina:** boiled and spiced cow, pig or sheep hoof
- **Biltong:** dried and salted raw meat, which can be made of ostrich, beef, kudu or any other red meat. Afrikaners used to preserve their meat by making biltong.
- **Bobotie:** a dish of Malay origin made with minced meat and curried spices topped with an egg sauce and then baked
- **Boerewors:** traditional spicy South African sausage made of beef or lamb
- **Chakalaka:** a relish of Indian/Malay origin made of onion, garlic, ginger, green-pepper, carrots and cauliflower, spiced with chillies and curry
- **Chotlo:** a Tswana dish, where meat is deboned and cut into very small pieces. The meat is boiled, then ground, cooked and stirred until it becomes very fine.
- **Frikkadel:** traditional South African meatballs made from minced beef, tomatoes, onions and other ingredients, shaped into balls and baked
- **Koeksisters:** syrupy and sweet traditional Afrikaner dessert, made from plaited dough
- **Mala:** intestines, especially chicken intestines, that are cleaned, boiled and then fried. This dish is usually eaten with pap
- **Maotwana:** chickens legs that are boiled to remove the hard skin. They are thoroughly washed, salted and then fried.
- **Mashonzha:** worms, similar to caterpillars, which are found in and around Mopani trees found in the Lowveld areas of Mpumalanga and the Northern Province.
- **Mogodu:** tripe, which is thoroughly cleaned and then boiled for two to three hours. Once softened, it simmers before being served with pap.
- **Morogo:** wild spinach, which is boiled, softened and served with stiff porridge
- **Pap:** boiled corn meal, often served with a sauce that usually contains tomato and onions
- **Rooibos tea:** a South African herbal tea made from the *Cyclopia genistoides* bush. Rooibos is an Afrikaans word, meaning "red bush".



## Grade 4

- **Samoosa:** a small, spicy, triangular-shaped pie that is deep-fried in oil. Made by the Indian and Malay communities, samoosas are popular with South Africans in general.
- **Serobe:** a Tswana dish made from a mixture of tripe, intestines and lungs that is thoroughly washed, then boiled and cut into small pieces before being spiced to taste
- **Snoek:** a fish, caught off the Cape coast that is often eaten smoked
- **Skop:** cow, sheep or goat head that is first scrubbed with a sharp instrument to remove skin. The unwanted parts such as the ears and nose are then cut out. The head is boiled and then simmered before serving.
- **Ting:** a sour porridge made of sorghum
- **Umnqusho:** a Xhosa dish made from samp that is boiled for more than three hours and then mixed with beans. Salt and oil are then added before it simmers.

*(adapted from [www.joburg.org.za](http://www.joburg.org.za))*

### 3. Activities

#### For lesson three, you'll need the following equipment:

- Paper plates, serviettes and spoons
- Indigenous foods challenge card.

#### Tips for the activity in lesson three:

- Get the learners to work in groups of four to six
- Each group should choose one traditional food that they can bring for the class to taste
- Try to get as broad a range of traditional foods as possible. Ensure that there are starters, main courses and desserts.
- The multicultural nature of most classes should provide a rich diversity of cultural traditions
- Organise the group so that as many different cultures as possible are represented in each group
- Set up the classroom so that groups are able to display their traditional foods and have the plates, serviettes and spoons ready for the food tasting.

#### Lesson period one

- Introduce the concept of traditional food and what it means
- Ask the children to give examples of foods that are indigenous to South Africa
- Go through the list of indigenous foods above to make the learners aware of the different types of South African indigenous foods (you can make a copy of the list for each learner)
- Revise the basic food groups and healthy meals with the learners
- Divide the learners into groups (read the tips for the activity in lesson three)
- Explain the food challenge cards and stamps. Every learner is responsible for completing his or her own food challenge card.
- In each group, learners must share the work load. They must decide:
  - who is responsible for making the food?
  - who is responsible for research on each food type?
  - who is responsible for making the stamp?



## Grade 4

### Lesson period two

- The learners should present their traditional food
- Allow learners to go around to each group in order to taste the different traditional foods
- Each time they taste a food, they get a stamp on their indigenous food challenge card
- During the tasting, one member of the group needs to tell the class the name of the food, what the food is made of and when and why it is eaten. They must also explain any interesting facts about that traditional food or cultural group.
- Get the learners to write the name of the food on the chalkboard
- Assist the learners as they identify the main ingredients in each dish.

You should try to match the food to one of the five food groups for the learners.

### Lesson period three

Part three concludes the activity and involves setting exercises for the learners.

- Get the learners to complete the Food Challenge Activity Card.

## 4. Wrap up (10 minutes)

The wrap up should be done in lesson part three.

- Let the learners complete the worksheet for lesson three
- Allow the advanced learners to design their own menu from the traditional foods they have tasted. The menu should include the correct name of the food and what it is made of.

Remind the learners of the importance of variety in their diet and discuss how they felt about trying new dishes.



Name \_\_\_\_\_

## Worksheet: Grade four lesson three

### Task one: Indigenous food challenge

- Work in groups. Your teacher will organise for you to taste the different cultural foods
- As you taste the food, find out the name of the food and whether it is eaten as a starter, main course or dessert
- Remember to get a stamp each time you taste something new
- Find out the main ingredient in each food you taste. Write down the details of what you tasted in a table like the one below:

	Name of dish	Culture	Starter/main/dessert	Main ingredient	Stamp
1					
2					
3					
4					
5					

### Task two: Create your own menu

Work with your group to design your own menu from the foods you have tasted.

**The menu should have the following courses:**

Starter, main course, dessert or pudding.

You can design the menu on a new piece of paper and make it as colourful as you like.

## Lesson four: Plan a healthy eating day (40 minutes)

### 1. Outcomes

By the end of this lesson the learners should be able to plan a healthy menu for a day that includes all five food groups and at least one meal that contains an indigenous South African food.

### 2. Teacher's corner

Make sure you know the Food-based Dietary Guidelines (FBDGs) and food groups for lesson four. You can find detailed information on these food classifications in the teacher's information guide.

The learners should work individually in lesson four. You can even organise a healthy eating day at school to make the activity more fun.

### 3. Activities

For lesson four you'll need coloured pencils and an activity sheet for each learner.

#### Activity one: Plan a healthy eating day

##### Introduction (10 minutes)

- Revise the food groups
- Introduce the concept of the Food-based Dietary Guidelines (FBDGs) and link them to the food groups
- Revise the indigenous foods of South Africa.

##### Main part of lesson four (25 minutes)

- Tell the learners that they must plan a healthy menu for a day including breakfast, lunch and supper
- Hand out the worksheets to the learners
- They must include all five food groups and refer to the FBDGs
- They must also include at least one meal that contains an indigenous South African food
- Tell the learners to draw each meal that they have planned and write what the ingredients of the meals are next to the drawing.

### 4. Wrap up (5 minutes)

Make sure that the learners have included all five food groups in their menus and that it is in line with the FBDGs.

Encourage the learners to share their chosen meals for the day with their families.

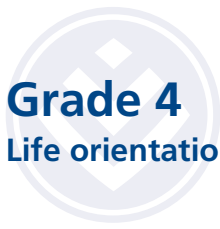
Name \_\_\_\_\_

## Worksheet: Grade four lesson four

### Task one: Plan a healthy eating day

- Plan a healthy, balanced breakfast, lunch and dinner for the day
- Remember to include all the food groups and refer to the Food-based Dietary Guidelines (FBDGs)
- Include at least three vegetables and two fruits in your menu
- Draw each one of your meals and list the foods that make up the meals
- Include a drink at each meal.

	My healthy menu	Ingredients	Drawing
Breakfast			
Lunch			
Supper			



# Grade 4

Life orientation: LO 4: AS 1, 2 and 4



## Lesson five: Nutrients and good health (30 to 40 minutes)

### 1. Outcomes

By the end of this lesson the learners should be able to:

- explain the functions of macronutrients and how they can influence physical activity and sporting performance
- identify which foods provide which macronutrients
- explain the difference between cardiovascular fitness and strength training and give suggestions on how to improve these components of fitness.

### 2. Teacher's corner

Most of lesson five is theory based and integrates the previous lessons, including the outcomes from grades 1 to 3.

#### Nutrition component

The main focus of this lesson is to make sure the learners know that carbohydrates are the energy-producing fuels, while proteins are the building blocks important for muscle strength. Help the learners identify the foods that mainly contain carbohydrates, proteins and fats. You can use empty wrappers, boxes, containers or get each learner to use their lunch as a reference.

There are 'good' and 'bad' fats and fats give energy and have some important functions. But too much of the 'bad' fats can lead to health problems such as high cholesterol, heart attacks and strokes.

#### Physical activity component

You should emphasise that endurance-based activities such as cycling and running require more carbohydrates, but that protein is needed to build and replace muscle tissue. Fats are sometimes important sources of energy, especially for ultra-endurance events such as iron-man triathlon events or multi-stage races that take place over a few consecutive days.

### 3. Activities

For activity three you'll need the following equipment:

- Large flat area: a grass area or the school quad or a netball or volleyball court
- Soccer balls or netballs
- Whistle
- Magazines
- Paper
- Scissors
- Glue.

Divide the learners into two groups at the beginning of the lesson. They must remain in these groups for activities one and two.

#### Activity one: Warm up (5 minutes)

Choose a warm up activity from the list of warm up and cool down exercises. Warm up exercise three is a good choice for this lesson.

#### Activity two: Invasion game (10 minutes)

Divide the class into two teams and pick a leader for each team. Each team should be on a half court and they have to stay in their own half court.

- The group leader must pick two people to go down to the other end to be catchers. The catchers have to stay behind the end line. They cannot go into the other team's half court.
- The objective of the game is for the players on one half of the court to throw the ball to their catchers on the other half. Every time the catcher gets the ball, their team scores a point. After they score a point, the catcher should try to throw the ball back to his or her team mates.
- The other team can try to block the throw on both ends, as long as they stay on their half court.
- The other team will also have two catchers
- The first team to get 20 points is the winner
- You can make up new teams after the first game or continue and play the best of three games.



#### **Other options**

- You can vary the number of catchers or have teams switch half courts after each game
- You can divide the class into four groups and have two games running at the same time on different playing areas.

#### **Activity three: The food group shuffle (5 to 10 minutes)**

Have all the learners sit in a big circle. Give each learner the name of a food – bread, cereal, meat, chicken, butter and oil.

##### **Level one**

When you call out a particular food, for example cereal, all the 'cereals' have to jump up and swap places with another 'cereal'. They are not allowed to go back to their same spot.

When you shout 'food group shuffle', then all the foods (learners) need to jump up and swap places with someone else.

##### **Level two**

Instead of calling the name of the food, call the name of the food group. When you call 'carbohydrates' the bread and cereal learners must jump up and change places. Similarly, you can call 'protein' and 'fats'. When you call 'healthy balance', all the learners must jump up and swap places.

#### **Activity four: Back in the classroom (5 to 10 minutes)**

Ask the learners to cut out pictures of foods representing carbohydrates, proteins and fats and paste them into three separate sections or columns on a page. This activity must be completed at home, but you must give them clear instructions in class.

#### **Activity five: Cool down (3 to 5 minutes)**

Choose a cool down exercise from the list of warm up and cool down exercises.

## **4. Wrap up (5 minutes)**

Remind the learners what cardiovascular fitness and strength training are and provide examples of activities that require these components of fitness.

Revise the main functions of carbohydrates, proteins and fats. Make sure the learners understand the worksheet and what they need to do at home.

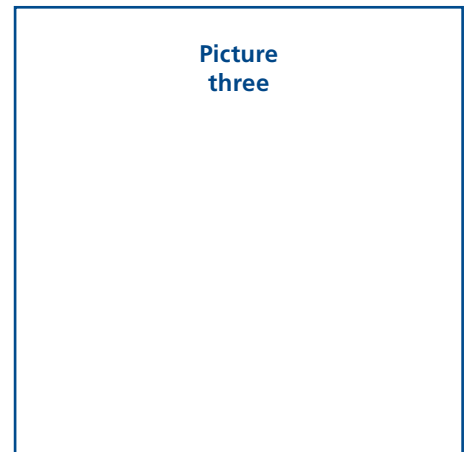
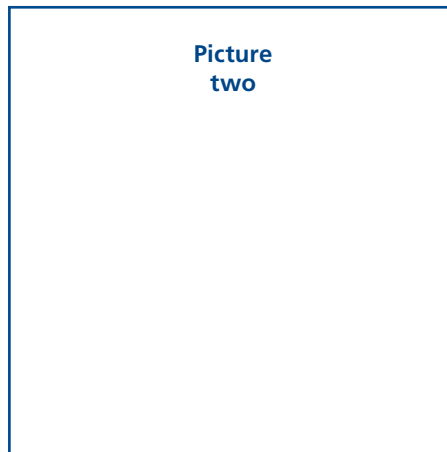
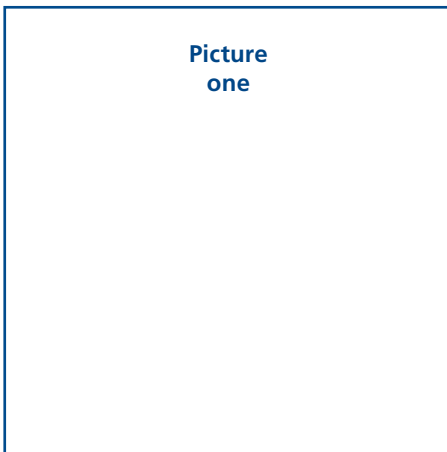
Name \_\_\_\_\_

## Worksheet: Grade four lesson five

### Task one: Matching

#### A: Carbohydrates:

1. Carbohydrates are the building blocks for endurance activities.
2. Cut and paste three pictures of foods rich in carbohydrates in the blocks below.



1. Write down two physical activities that require mainly carbohydrates for fuel.

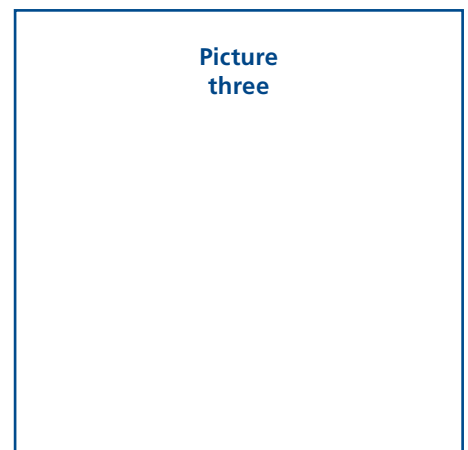
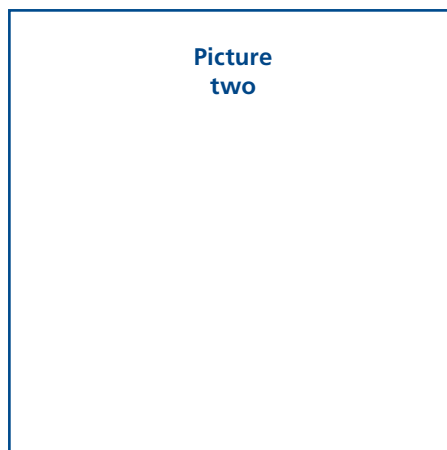
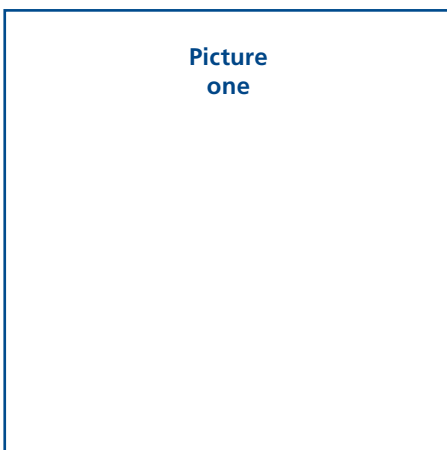
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#### B: Proteins

1. Proteins are the building blocks of muscle tissue.
2. Cut and paste three pictures of foods rich in protein in the blocks below.



**C: Fats:**

1. Fats also give energy, but too much fat will harm the body.
2. Cut and paste three pictures of foods rich in fats in the blocks below.

**Picture  
one**

**Picture  
two**

**Picture  
three**



## Warm up exercises

### 1. Warm up exercise one (5 minutes)

Divide the learners into groups of three or four.

- Each time you call out a letter of the alphabet, the learners have to lie down and position themselves to form that particular letter
- In between calling out the letters, have the learners jog or march on the spot for about 10 seconds. You can blow a whistle to indicate the start and end of the 10 seconds.

### 2. Warm up exercise two (5 minutes)

Play a CD and instruct the children to do movements such as dance, walk, jump, hop or skip while the music is playing. Each time the music stops, they must do a different movement when it starts up again.

## Cool down exercises

### 1. Cool down exercise one (3 minutes)

Have the learners help you pack any equipment away. Then instruct the learners to do the stretches from cool down exercise two:

- Each time you call out a letter of the alphabet, the learners have to lie down and position themselves to form that particular letter.

### 2. Cool down exercise two (3 minutes)

Instruct the learners to do following stretches:



Hip flexor stretch



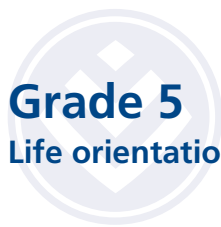
Hamstrings



Quadriceps

The learners must hold each stretch for 20 seconds and repeat them twice on both sides.





# Grade 5

Life orientation: LO 4: AS 1, 2 and 4



## Lesson one: Target practice (30 to 40 minutes)

### 1. Outcomes

By the end of this lesson the learners should be able to:

- participate in a target game where they are the target (lions and tigers)
- participate in a variety of target games using a ball or beanbag
- be able to design their own game, including developing rules and showing their classmates (worksheet activity).

### 2. Teacher's corner

The aim of lesson one is to provide the learners with an opportunity to participate in two target games. In one game, a learner is the target (lions and tigers) and in the other, a hoop is the target.

The main aim of target games is to throw a ball or object into targets, using the least number of shots, or getting as many balls as possible closest to the target.

The second part of the lesson is partly theory-based. Learners have to work in groups to make up their own game. Ideally, they should have an opportunity to teach their classmates their new game. These activities can take two lessons instead of one.

### 3. Activities

For lesson one you'll need the following equipment:

- Large, flat area, ideally the size of a netball court
- Hula hoops
- Tennis or soccer balls (four to eight)
- Bean bags
- Wall with a target square marked out using masking tape or cardboard
- Six to 10 cones
- Rope or chalk to mark the starting lines for the circuit.

#### Activity one: Warm up (5 minutes)

Choose a warm up exercise from the list of warm up and cool down exercises.

#### Activity two: Lions and tigers (5 to 10 minutes)

Divide the class into two groups, the lions and the tigers.

- Ideally this game should be played on a basketball or similar court, but the area should have lines and boundaries marked
- Have the learners stand near the centre of the court with their backs to the opposing team, about five to eight metres apart.

Flip a coin and call out who won the toss (heads is lions and tails is tigers).

If tigers win the toss, they must turn around and try to get to the end line on the opposite side of the court. At the same time, the lions will chase the tigers and try to touch their arms. If touched, the tiger has to join the opposing team of lions.

If a tiger reaches the end line, they are safe from being captured by the lions.

The winning team is the one with the most players at the end of the game.



## Grade 5

### Activity three: Target circuit (15 minutes)

#### Set up the circuit before the start of the class:

- Line three hoops up one behind the other with the third hoop at least 8m from the first hoop
- The learner has to aim to throw the bean bag into the furthest hoop without it touching the sides of the hoop
- Mark a target on a wall using cardboard: you can draw a smaller circle in the centre of your cardboard square. Make the starting line at least 8m away from the wall. The learner has to aim to hit the square. The more advanced learners can aim to hit the circle in the centre.
- Basketball or netball hoop: each learner will have three opportunities to throw the ball in the basketball or netball hoop
- 10 cones: arrange six to 10 cones in a triangle with the base of the triangle furthest from the starting line
- The start line needs to be at least 10m from the cones. Roll a ball towards the cones, trying to knock as many down at a time as they can.
- Each of the four target games outlined above must be set up at its own station.

Divide the class into groups of four. Each group will start at a different station. You will blow the whistle each time the group has to move to the next station. The timing may be a bit tricky as you don't want one group having to wait before being able to move to the next station. Therefore, you may need to be a bit creative to ensure that the learners are ready to move to the next station at more or less the same time.

Alternatively they must keep marching on the spot at a station until you blow the whistle. If they don't, they'll be disqualified.

#### Tips for activity three:

Set out the circuit for activity three before the start of the game. Explain what to do at each of the stations. Use one of the learners to demonstrate the activity before allowing the groups to start the circuit.

### Activity four: Cool down (3 minutes)

Choose a cool down exercise from the list of warm up and cool down exercises.

## 4. Wrap up (2 minutes)

Remind the learners of the benefits of the activities they have done and introduce the worksheet for lesson one.



**B: Can you draw how your game will be played?**

**C: What are the safety precautions you may need to consider when playing this new game?**

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You can teach members of your family your new game and play a few rounds.

## Lesson two: Dance dynamics (30 to 40 minutes)

### 1. Outcomes

By the end of this lesson the learners should be able to:

- perform a set dance sequence
- choreograph and teach a short dance sequence
- be able to explain three different cultural dances, two from South Africa and one from another country.

### 2. Teacher's corner

You may not be a dancer yourself, but this lesson does not rely on your expertise, but on how enthusiastic the learners are. In addition, the quality of the lesson could be improved if you have access to a TV and a DVD of national dances from other countries.

### 3. Activities

For lesson two, you'll need the following equipment:

- Music system
- CDs including a variety of music genres
- TV (if you have footage of national dances being performed).

#### Activity one: Warm up (5 minutes)

Choose a warm up exercise from the list of warm up and cool down exercises.

#### Activity two: Choreography (10 minutes)

Divide the class into groups of about six. It may be a good idea to group the boys separately from the girls.

- Allocate a different genre of dance for each group. For example, hip hop, jazz, contemporary or ballet. This can be done by placing the name of each genre in a hat and letting a representative from each group choose one.
- Try to cover six genres of dancing in your class and probe the learners' understanding of their dance
- Instruct each group to choreograph a dance according to the genre they have chosen.

#### Tips for activity two

You may have some resistance from the boys, so get their interest by explaining that there are dances that only men participate in, such as the Hakka or gumboot dancing. Alternatively, the boys may want to do hip hop, which requires some strength and gives them an opportunity to show off a bit. They can even make up a rap song with words related to the lesson to match their dance moves.

#### Activity three: Team teach (15 minutes)

- Allow each group to demonstrate their dance to the class
- Let the class vote on the best two dances and have the winning teams teach the other learners their dance.

#### Activity four: Cool down (3 minutes)

Choose a cool down exercise from the list of warm up and cool down exercises.

### 4. Wrap up (2 minutes)

Tell the learners that different countries and cultures have different dances. Dancing is a form of physical activity and therefore provides excellent health benefits. In addition, dance is an art form and an outlet for expressing feelings and emotions.

Introduce the worksheet for lesson two.

Name \_\_\_\_\_

## Worksheet: Grade five lesson two

### Task one: South African dances

Select a cultural group from South Africa that is not your own. Visit the library or search the internet for information on this cultural group's preferred dance.

#### Answer the following questions

1. What is worn when doing the dance? \_\_\_\_\_

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2. When do they do the dance? \_\_\_\_\_

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3. Why do they do the dance? \_\_\_\_\_

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4. Is the dance for the whole cultural group or only for a few selected members? \_\_\_\_\_

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5. Either draw or find a picture of someone from this culture dancing.

## Lesson three: Protecting the quality of food (30 to 40 minutes)

### 1. Outcomes

By the end of this lesson the learners should be able to:

- explain what a food additive is and how it can protect the quality of food
- list three different types of food additives and give an example of each.

### 2. Teacher's corner

#### Food additives

Food additives are added to food and drinks during processing. They may be added to food to enhance its flavour, taste, aroma, colour, texture or appearance, or to preserve the food or drink from becoming spoiled. In the past, food was preserved by adding vinegar, sugar or salt. Today, there are many other additives used to preserve food.

**Manufacturers are allowed to add certain substances, natural or synthetic, to food for the following specific purposes:**

- **To improve nutritional value:** nutrients, including antioxidants, particularly those that may have been lost during processing, might be added to improve food's nutritional value
- **To preserve food (make it last longer):** examples include preservatives, emulsifiers, stabilisers, anti-caking agents
- **To enhance the colour, appearance and flavour of food:** examples include colourants and flavourants. These don't necessarily add any nutritional value to food.

**Examples of food additives that you may see listed on food labels are:**

- Preservatives
  - Sulphites: sulphur dioxide, sodium sulphite and potassium metabisulphate. They are added to food and drinks to prevent browning, control microbial growth and spoilage, modify texture and bleach certain foods.
  - Benzoates and parabens: sodium benzoate, benzoic acid and methylparaben. These are used to prevent spoilage of foods by yeasts, fungi, bacteria and other micro-organisms.
  - Nitrates: these are used to cure and preserve meats and give them an attractive red colour.
- Flavourants
  - Monosodium glutamate (MSG): this is actually a flavour enhancer that brings out the flavour in the food.
- Colourants
  - Tartrazine: this is a yellow colourant used as a dye in many foods, drinks and pharmaceutical products.

### 3. Activities

**For lesson three you'll need the following equipment:**

- Ask the learners to bring along a wrapper of their favourite snack, such as dried fruit, a snack bar, biltong or chocolate
- A copy of the worksheet to hand out to the learners for them to complete the activity in class.

**Activity one: Know your additives (25 to 30 minutes)**

- Divide the learners into groups of three to four so that they can see each other's wrappers and be exposed to a wider variety of packaging
- Tell the learners to identify the additives in each product and investigate whether that additive was used to improve the nutritional value or to improve the quality of the food
- Hand out a worksheet to the learners for them to complete the activity in class.

### 4. Wrap up (5 minutes)

Remind the learners of the purpose of food additives, and encourage them to find out which additives the food that they have at home has.

Name \_\_\_\_\_

## Worksheet: Grade five lesson three

### Task one: Protecting the quality of food

#### Answer the following questions

1. What are food additives? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Why are food additives added to food? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. List three types of food additives. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Draw a line to link the examples of food additives in the right hand column to the correct group of food additives in the left hand column

<b>Preservatives</b>	<b>MSG</b>
	<b>Tatrazine</b>
<b>Flavourants</b>	<b>Benzoates</b>
	<b>Nitrates</b>
<b>Colourants</b>	<b>Sulphites</b>



## Lesson four: Protecting your food (30 to 40 minutes)

### 1. Outcomes

By the end of this lesson the learners should be able to:

- explain how food spoilage occurs
- describe ways to prevent food spoilage.

### 2. Teacher's corner

The learners should learn about food spoilage, how it occurs and how to prevent it. You should show the learners the difference between food that has been spoiled and food that has been preserved.

Three days before the lesson, cut a piece of fruit in half. Place one of the halves in plastic wrap in the refrigerator and leave the other half out on a plate at room temperature. Make sure the piece of fruit that is left out is in a safe place, out of the learners' reach.

### 3. Activities

For lesson four you'll need the following equipment:

- The refrigerated half of the fruit and the half that has been left out
- Another fruit of the same type that you're using
- A can of food
- A bag of frozen vegetables
- Some vacuum-packed food
- A bag of dried fruit
- A knife
- A plate
- A display table.

#### Activity one: Food preservation (30 minutes)

To start activity one, take out a piece of fruit (the same type of fruit as the one you halved three days before the lesson), a knife and a plate. Cut the fruit in half and put one half on the plate. Then eat the other half. Tell learners that you want to save the other half of the fruit for tomorrow.

- Ask them if there is anything you should do with the cut fruit if you want to eat it tomorrow
- Ask them why they made the suggestions they did
- Once the learners confirm that you should wrap the fruit in plastic wrap and put it in the fridge, ask them:
  - What does putting the piece of fruit in the fridge do for the fruit?
  - What happens when a piece of cut fruit is not put into the fridge and is left at room temperature?
  - What might happen if you left the piece of fruit out of the fridge on the table and ate it in a few days?
- The learners will probably suggest that the fruit may become rotten when left at room temperature
- Explain that this is called spoilage. Eating spoiled food can cause a person to become very ill, so it is not a good idea to leave fresh-cut fruit out for long periods of time.
- Show the learners the piece of fruit that you left at room temperature for three days
- Then show them the piece of fruit that you put in the fridge for three days. Let the learners compare the appearance and freshness of each.
- Explain that fresh foods spoil when left out of the fridge over time, while keeping them in the fridge helps to keep them fresh for longer periods
- Cooling food slows the spoilage process and keeps it fresh. This is why fridges are used to store foods at factories, on ships and planes, in supermarkets and in our homes.
- Inform the class that cooling is only one way to preserve food, and that they will now learn about other methods.



**To move on to other ways of preserving food, discuss the following:**

- Besides fruit, what other foods need to be specially handled to avoid spoiling?
- What are some of the ways these foods are specially handled?
- Explain that there are other ways to slow spoilage and keep foods fresh for longer
- On a table, display the following items:
  - A can of food
  - A bag of frozen vegetables
  - A vacuum-packed food
  - A bag of dried fruit.
- Tell the learners they must decide which of the preservation groups each food belongs to: canned, frozen, vacuum-packed and dried
- Explain how these types of preserving and packaging help to make food last longer
- Let the learners taste the foods that have been preserved differently
- Ask them to describe the differences in taste if there are any
- Ask them which version they prefer and why.

**4. Wrap up (5 minutes)**

Remind the learners of the importance of preserving food and the dangers of eating spoiled food.

Introduce the worksheet for lesson four.

Name \_\_\_\_\_

## Worksheet: Grade five lesson four

### Task one: Food preservation

Fill in the table by listing:

- Method of preservation: how the food is preserved
- Food group: list the food group the food belongs to.

	Sample of food	Explain the method of preservation	Food group
1	A can of peas		
2	A bag of frozen vegetables		
3	Vacuum packed polony		
4	A bag of dried fruit		

## Lesson five: My wellness chart (30 to 40 minutes)

### 1. Outcomes

By the end of the lesson the learners should be able to:

- complete a wellness chart
- reflect on their wellness and plan steps to improve it
- explain why a healthy lifestyle involves both physical activity and making healthy eating choices.

### 2. Teacher's corner

In 1981, the concept of wellness was new to many people. Today we are likely to encounter the topic everywhere through popular magazines, workshop topics or at the gym.

- Wellness is about appreciating yourself as a growing, changing person and allowing yourself to move towards a happier life and more positive health
- Wellness is a personal, individual matter – there are no right or wrong answers. Learners should not, in any way, be judged on their wellness activity responses.
- Every wellness profile is different. Learners should be encouraged to reflect on their wellness and how they can take steps (however small) in the right direction along the path to wellness.

You need to show sensitivity and insight when dealing with each learner and his or her profile. Provide positive reinforcement for every step that is taken in the right direction. Do not allow any competition between learners regarding the wellness activity. Rather encourage learners to do 'before and after' type comparisons regarding their own wellness profiles.

#### The wellness chart

The wellness chart is a table with days of the week and healthy activities. The learners then need to indicate what they have done. See an example of a wellness chart below.

Healthy activities	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning						Walked the dog	
Afternoon	Played soccer during break time at school			Went for a walk with the family (one hour)			
Evening							Played tennis



### 3. Activities

**For lesson five you'll need the following equipment:**

- A copy of the lesson five worksheet for each learner
- Coloured pens or crayons.

#### **Activity one (30 minutes)**

Ask the learners to think about what physical activity and other healthy things they've done this week.

- Hand out the wellness charts to each learner
- Each learner must complete their own wellness chart. Emphasise that every chart will look different and that there are no right or wrong wellness charts.

#### **Tip for activity one**

Encourage the learners to keep their wellness charts for later reference. This would be a useful activity to keep in the learner's portfolio.

### 4. Wrap up (5 minutes)

Remind the learners about what wellness is and about the things they can do to improve their wellness.

Introduce the worksheet for lesson five.

Name \_\_\_\_\_

## Worksheet: Grade five lesson five

### Task one: Your wellness chart

Think about the physical activity and other healthy things you have done this week. Try to fill in each block with a healthy activity that you have done. In the table, the example is if you went jogging on Saturday afternoon.

#### Examples of healthy activities

- Played a target game at school
- Played a target game at home
- Expressed yourself in dance
- Did housework to get your heart pumping
- Climbed stairs
- Started your day by stretching
- Did 10 star jumps
- Did 10 sit-ups
- Did 10 push-ups
- Ran on the spot for a count of 20
- Added whole grains to your diet
- Chose fresh fruit and vegetables
- Chose water rather than a fizzy cold drink or a milkshake
- Did something relaxing
- Had enough sleep (at least 10 hours)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning							
Afternoon						Jogging	
Evening							



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