

Grade 4

Lesson 1

Lesson plan			
Lesson theme	Heart rate and physical activity	Grade	4
Duration	40 minutes	Date/week	
Context			
<ul style="list-style-type: none"> Getting more physically active Ways in which to improve health and wellness. 			
Linking with previous lesson		Linking with next lesson	
N/a.		<ul style="list-style-type: none"> Learning about the different components of physical activity. 	
Core knowledge			
<ul style="list-style-type: none"> Understanding the terms 'pulse,' 'heart rate' and 'cardiovascular activities.' 			
Learning activities and assessment			
<p>Group work:</p> <ul style="list-style-type: none"> Learners learn how to find their pulse and measure it Warm-up Learners do a circuit in pairs and measure and record one another's heart rate after each activity Learners play a game of 'Tag, you're it' and measure and record their heart rates Cool-down. <p>Working in pairs:</p> <ul style="list-style-type: none"> Introduce the worksheet for lesson 1. 			
Forms of assessment		Resources	
<ul style="list-style-type: none"> Worksheet Observe learners while they play. 		<ul style="list-style-type: none"> Whistle Stopwatch Music system such as a CD player Dance CDs Paper and pencils (one pencil for each student) A large flat area, such as a field or a netball court A big clock all the learners can see or at least 1 watch or any time piece for each pair. 	
Expanded opportunities		Teacher reflection	
<ul style="list-style-type: none"> Encourage learners to do a range of cardiovascular activities at home and on the playground. 		<ul style="list-style-type: none"> The activities make learners aware of the benefits of doing cardiovascular activities. 	

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Lesson 1: 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 1 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 hearts are 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 which 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 1 you'll need the following equipment:

- Whistle
- Stopwatch
- 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
- A big clock all the learners can see or at least 1 watch or any time piece for each pair.

Activity 1 : Finding the pulse (5 minutes)

Start by teaching learners to find their pulse and measure it.
Place 2 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.

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Activity 2: Warm-up (5 minutes)

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

Activity 3: 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 3. The circuit should have several stations where the learners do a specific activity.

- The learners need to work in pairs
- More than 1 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 clockwise.
- The various circuit stations could include:
 - Run between 2 lines (about 10 metres apart) as fast as you can. Repeat
 - Do 10 sit-ups
 - Balance on 1 leg for 10 seconds
 - Do 10 star jumps
 - Stand on your toes for 10 seconds.

Tips for activity 3:

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

Activity 4: Tag, you're it (5 to 8 minutes)

Activity 4 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 3 groups (depending on the size of your class, aim for about 10 learners in a 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 4:

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 5: Cool-down (5 minutes)

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

3 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 1 to the learners.

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Name: _____

Worksheet: Grade 4, lesson 1

Task 1: 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 the measurements 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-ups				
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? _____

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Name: _____

Worksheet: Grade 4, lesson 1

Task 2: Measure a friend's heart rate

Get your partner to do the following activities:

- Balance on 1 leg for 10 seconds
- Walk for 1 minute (this can be on the spot, around your yard or around the block, depending on the amount of space you have available)
- Do 5 sit-ups
- Do 5 jumping jacks
- Sit down for 1 minute
- Jog or run or skip for 1 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 simliar pattern to yours? _____

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