### Lesson plan

<table>
<thead>
<tr>
<th>Lesson theme</th>
<th>Muscle strength</th>
<th>Grade</th>
<th>4</th>
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<tbody>
<tr>
<td>Duration</td>
<td>40 minutes</td>
<td>Date/week</td>
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**Context**
- Getting more physically active
- Ways in which to improve health and wellness.

**Linking with previous lesson**
- Learning about the different components of physical activity.

**Linking with next lesson**
- Learning how to lead a healthier lifestyle.

**Core knowledge**
- Understanding strength as a component of physical activity
- Understanding why muscle strength is important and knowing ways in which to increase it
- Understanding the different groups of muscles.

**Learning activities and assessment**

**Group work:**
- Warm-up
- A range of activities that build muscle strength, such as shot-put
- Cool-down.

**Individual work:**
- Introduce the worksheet for lesson 2.

**Forms of assessment**

- **Expanded opportunities:**
  - Observe learners while they play
  - Worksheet.

**Resources**
- **Resources:**
  - Large, flat area – preferably grass
  - Cones or markers – at least 8 if you have 4 groups in your class
  - Whistle
  - Rope (at least 4 metres long) and a piece of string
  - Home-made dummy shot-put
  - Shot-puts or medicine balls
  - Worksheets.

**Expanded opportunities**

- Encourage learners to do activities that build muscle strength at home and on the playground.

**Teacher reflection**

- The activities make learners aware of the benefits of doing muscle-building activities.
Grade 4

Lesson 2: 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 2 ways in which muscle strength can be improved.

2. Teacher’s corner
   The aim of lesson 2 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 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 right 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.
For lesson 2 you’ll need the following equipment:
- Large, flat area – preferably grass
- Cones or markers – at least 8 if you have 4 groups in your class
- Whistle
- Rope (at least 4 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 1: Muscles and strength (5 minutes)**
Using the diagram below, show the learners the location and names of the following muscles:

- Biceps – front of arm
- Triceps – back of arm
- Abdominals – stomach muscles
- Gluteal muscles
- Quadriceps – front of thigh
- Hamstrings – back of thigh

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

**Activity 2: Warm-up (5 minutes)**
Choose a warm-up activity from the list of warm-up and cool-down exercises.

**Activity 3: Partners (8 to 10 minutes)**
Activity 3 consists of 4 activities learners must do in pairs. Start by dividing the class into pairs.
Grade 4

Cone running
- Set up a row of 4 cones, spaced 2 metres apart from one another. Create 2 lines at each end of the row of cones. (5 metres away from the cones)
- The learners must stand behind a line, 5 metres from the first cone
- Partner A aims to reach a line 5 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 2 metres apart
- The pair that forces the string in the middle of the rope to cross over their mark in the ground wins
- Ensure that the learners stay on their feet during the tug – if a learner falls over, that pair forfeits.

Wheelbarrow
- 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 B must hold Partner A’s feet and walk with them.
- Partner A will then use his or her arms to walk forward.
- Allow the partners to walk like this between 2 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.

Leapfrog
- Partner A should crouch down with partner B standing behind A. They must both face the same direction.
- Partner B places their hands on partner A’s shoulders.
- Partner B must push themselves 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).
Wheelbarrow: 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).
Leapfrog: Partner crouching – legs (quadriceps) and arms (triceps). Partner leaping – arms (triceps), shoulder muscles and legs (calf muscles and quadriceps).
Grade 4

Activity 4: Shot-put (10 minutes)
Set up a line or ring, using cones, from where the learners must throw the shot-put from into a wide open space. Set up a separate marker 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 home-made dummy shot-put and explain the correct technique for throwing the shot-put (see the teacher’s corner for details)
- Have each learner practise 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 5 learners in a 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 4:
- Set up the cones and markers before the lesson
- Use 1 of the learners as a model to show the muscle groups in activity 1. 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 5: Cool-down (5 minutes)
Choose a cool-down activity from the list of warm-up and cool-down exercises.

Wrap-up (5 minutes)
Revise the importance of muscle strength and go over the proper names for the groups of muscles identified in activities 1 and 3. Introduce the learners to the worksheet for lesson 2.
Grade 4

Worksheet: Grade 4, lesson 2

Task 1: Word search
Find the following words:
- Quadriceps
- Hamstring
- Bicep
- Tricep
- Abdominal
- Muscle
- Fitness
- Active
- Shot-put
- Strong

Task 2: Muscle groups
Match the muscle group to the action:

Ask 2 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.

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<tr>
<th>Activity</th>
<th>Strength needed?</th>
<th>Muscles used</th>
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<tbody>
<tr>
<td>Example: Rowing</td>
<td>Yes</td>
<td>Shoulder and back muscles, biceps, triceps and pectorals</td>
</tr>
<tr>
<td>A.</td>
<td></td>
<td></td>
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<tr>
<td>B.</td>
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