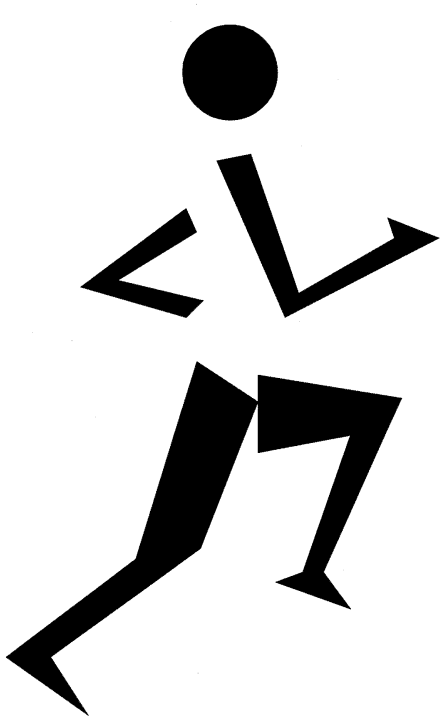
Grade 6

2. Fitness Management

The student will demonstrate the ability to develop and follow a personal fitness plan for lifelong physical activity and well-being.



PRESCRIBED LEARNING OUTCOMES

Students will...

❑ **K.2.6.A.1 Recognize the health- and skill-related fitness components** (e.g., agility, power, reaction time, speed, coordination…) **that contribute to skill development.**

Curricular Connections

ELA:

GLO 3—Manage ideas and information.

GLO 4—Enhance the clarity and artistry of communication.

GLO 5—Celebrate and build community.

SUGGESTIONS FOR INSTRUCTION

♦ Create a Workout

Assign a fitness component to groups of students and have them work at stations to create one or more exercises/activities that will serve to develop that specific component. Refer students to books, websites, CD-ROMs, and so on, in their search for appropriate fitness exercises/activities. Have students participate in an active Gallery Walk in which they rotate to the various stations to perform the activities, with one group member staying back at his or her own station to instruct "visitors." (See Gallery Walk "Alternative," *Success for All Learners* 6.80.)

Variation: Divide the class into three groups, and have each group design a complete circuit that includes health- and skill-related fitness components. Each student is responsible for making a poster describing one of the exercises. Students can also include motivational tips and information on benefits of exercise. Only one group sets up their circuit in a given class, and the whole class participates.

♦ Skill-Related Fitness Challenges

Have students participate in challenges for developing the skill-related fitness components.

Agility

- **Agility Runs:** Using the length of a badminton court, have students start at one end line and, on a given signal, run to pick up a beanbag on the other end line and bring it back to the start line. Students continue until they pick up three beanbags and return to the start line. Time the runs.
- **Triangle Tag:** Have students form groups of four. Three students join hands and the other student is the tagger. The tagger tries to tag a specific student while the other students try to keep the tagger away from him or her.

Power

- **Vertical Jumps:** Have students stand sideways against the wall. They begin by marking their reach with chalk on the wall. They then jump as high as they can and put a mark on the wall with the chalk.
- **Long Jump:** Using an outdoor long-jump pit, have students help measure each other's jump.
- **Owl Hop:** Ask students to start on one leg, with the foot of the other leg hooked behind the knee of the standing leg. Have them squat down and jump as far as they can in a horizontal direction. Measure the distance jumped. Have students alternate legs.

(continued)

TEACHER NOTES

For knowledge-related learning outcomes, use "active" games to help students understand concepts. Use warm-up/cool-down time for "mini-lessons" and "assessment checks" for observing understanding.

Some quick, efficient ways to assess in an active physical education setting are: use of Exit Slips, thumbs-up or hands-up signals, signing an inventory or "I Can" chart, human opinion lines, and use of self-adhesive notes for graphing results.

Introduce, explain, use, and reinforce vocabulary related to the **skill-related fitness components:**

- **Agility**—"the ability to shift the body in different directions quickly and efficiently" (Kirchner and Fishburne 701).
- **Balance**—the ability to control or stabilize your equilibrium while moving (dynamic balance) or staying still (static balance).
- **Coordination**—"the ability to use your eyes and ears to determine and direct the smooth movement of your body" (e.g., hands, feet, arms, head) (Rainey and Murray 395).
- **Power**—"the ability of the body to apply a maximum muscular contraction with the quickest possible speed" (Kirchner and Fishburne 706).
- **Reaction time**—"the ability to react or respond quickly to what you hear, see, or feel" (Rainey and Murray 398).
- **Speed**—"the ability to move your body or parts of your body swiftly" (Rainey and Murray 399).

SUGGESTIONS FOR ASSESSMENT

♦ Paper and Pencil Task: Create a Workout

Self-Assessment: Inventory

After participating in the workout, group members assess the content of the circuit.

Exercise Component Match

Name the exercises that were included in the circuit for each of the following health- and skill-related fitness components. You may have more than one exercise for each component.

- Cardiovascular endurance _____
- Muscular endurance/strength—arms _____
- Muscular endurance/strength—legs _____
- Muscular endurance/strength—abdominals _____
- Flexibility _____
- Agility _____
- Power _____
- Reaction time _____
- Speed _____
- Coordination _____
- Balance _____

Refer to BLM 6–3: Fitness Component Circuit.

♦ Questioning/Interview: Create a Workout

Teacher Assessment: Inventory

Ask students to identify which health-related or skill-related fitness component each station represented.

Suggested Criterion:

Look for

❑ evidence of understanding through post-activity questions

(continued)

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
Students will...	
❑ **K.2.6.A.1** *(continued)*	*(continued)*

Reaction Time

- **Drop the Ruler:** Have students work in pairs. One student holds a plastic ruler (or relay baton) above the partner's hand, and then drops the ruler. The partner tries to catch the ruler between thumb and index finger as close to the end as possible.
- **Palm Top:** Ask students to select a partner. One student faces the partner with palms up. The other student places his or her hands palm down above the partner's hands. The student with hands on the bottom tries to touch the top of the partner's hands.

Speed

- **Fifty-Metre Run:** Outdoors, mark out a 50 m track. Have students signal start and time each other's running speed.
- **Hand Clap:** In a push-up position, students try to clap twice.

Coordination

- **Ping Pong:** Ask students to count the number of times their partner can hit a ping pong ball in the air with a paddle.
- **Ring Toss:** Prepare a 15 cm stick with a string attached to the handle and six rings attached to points near the end of the string. The object is to toss the string and catch the rings on the stick. Catching more rings requires more coordination.
- **Juggling:** Ask students to record the number of seconds/minutes they can juggle objects without missing.

Balance

- **Stick Walk:** Have students hold a "broom handle," hands shoulder-width apart, take a handstand position, and walk on knuckles, still holding the stick with both hands.
- **Pogo Balls:** Place pogo balls around a disc with a ball in the middle. Students attempt to jump as many times as they can on the pogo balls.
- **One-Foot Balance:** Put a hockey stick flat on the floor. Students attempt to maintain their balance while standing lengthwise (or crosswise) on the stick.

TEACHER NOTES

Refer to BLM G–11: Skill-Related Fitness Components Poster.

Aboriginal Link:

Choose traditional Aboriginal games that provide challenges for developing strength, eye-hand coordination, and target/accuracy skills.

SUGGESTIONS FOR ASSESSMENT

♦ **Paper and Pencil Task: Skill-Related Fitness Challenges**
Self-Assessment: Inventory

Have students participate in the fitness challenges for skill-related fitness and keep track of their results.

Refer to BLM 6–5: Skill-Related Fitness Challenges.

PRESCRIBED LEARNING OUTCOMES

Students will...

❑ **K.2.6.C.1a Identify the names of the main bones** (e.g., humerus, ulna, radius, femur, tibia, fibula, scapula, clavicle, ribs, pelvis, skull...) **and function** (i.e., shape, support, protection) **of the human skeletal system in the context of exercise and physical activity.**

Curricular Connections

ELA:
GLO 3—Manage ideas and information.
GLO 4—Enhance the clarity and artistry of communication.
GLO 5—Celebrate and build community.

PE/HE:
GLO 2—Fitness Management (S.2.6.A.3a)

SUGGESTIONS FOR INSTRUCTION

♦ Skeleton Tag

Have students play Everybody's It. If anyone tags another person, the tagged person freezes and places a hand on an area of the body. To be saved, another student must identify the name of the bone of the area that the student is covering. Have students use the anatomical names of the bones.

♦ Skeleton Project: Active Kids Have Healthy Bones

Have students work individually or in groups to complete a project that provides the following information:

- the names of the main bones
- the function of the human skeletal system
- the effects of exercise and the effects of inactivity on the human skeletal system

The theme of the project can be Active Kids Have Healthy Bones. The project format can be an active game, a board game, news show, play, brochure, song, poster, and so on.

♦ "Skeleton Says"

Have students participate in a game of "Skeleton Says" (like "Simon Says") using the anatomical names of the bones (e.g., "Skeleton says, touch your humerus," and so on).

TEACHER NOTES

Have a poster available for students to check the proper names of the bones. Models of skeletons also provide valuable information for students.

For the skeleton project, create a mind map in class with the information that each project must include. Direct students to books and websites on the skeletal system.

Have students present a maximum of three projects each class to allow for activity time. Set a time limit of five minutes per presentation.

The Active Kids Have Healthy Bones theme ties in with the Active Kids: Healthy Futures promotion of The Manitoba Physical Education Teachers Association (MPETA). The theme can also be reinforced by sending home activity participation logs.

Language Link:

When teaching vocabulary related to health content areas or specific sports, encourage students to learn the terms in their home language or in another language (e.g., French, Ukrainian, Mandarin, Cree, Ojibway), especially in communities where a particular culture is represented.

SUGGESTIONS FOR ASSESSMENT

- **Paper and Pencil Task: Skeleton Tag**

  Teacher Assessment: Inventory

  After students have participated in the Skeleton Tag game, have them complete a diagram labelling the bones.

  Suggested Criterion:

  Look for

  ❑ number of correct responses

  Refer to BLM 6–4: Skeleton Diagrams.

- **Performance Task: Skeleton Project: Active Kids Have Healthy Bones**

  Teacher Assessment: Scoring Rubric

  Have students complete the suggested skeleton projects. Assess projects using a scoring rubric.

  Refer to BLM G–9: Project-Assessment Rubric.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
Students will...	
❑ **K.2.6.C.1b Describe the effects of exercise and inactivity on the human skeletal system** (i.e., increased/decreased bone density, increased/decreased bone mass). **Curricular Connections** **ELA:** GLO 1—Explore thoughts, ideas, feelings, and experiences. GLO 3—Manage ideas and information. GLO 5—Celebrate and build community. **PE/HE:** GLO 2—Fitness Management (K.2.6.C.1a)	♦ **Skeleton Project** See the instructional strategy suggested for learning outcome K.2.6.C.1a to make curricular connections.  Refer to BLM 6–4: Skeleton Diagrams. ♦ **Fitness Challenge** Have students participate in a fitness challenge, spending one minute at each of five active stations (e.g., curl-ups, bench step-ups, wall push-ups, bench dips, jumping jacks), alternating with five inactive stations (e.g., reading information on benefits of physical activity, fitness components, the FITT [frequency, intensity, time, type] principle). After the 10 minutes, bring students together to cool down. As they are doing their cool-down stretches, discuss the effects of activity and inactivity on their bones. Ask students to give a thumbs-up signal if they think a specified station helped to increase their bone mass/density (stations that involve weight-bearing exercises).
❑ **K.2.5.C.2 ➠ K.2.6.C.2 Show an understanding of the factors** (e.g., planning, regular participation, effort, adequate information, motivation, commitment, regular monitoring...) **affecting personal fitness development.** **Curricular Connections** **ELA:** GLO 1—Explore thoughts, ideas, feelings, and experiences. GLO 5—Celebrate and build community. **PE/HE:** GLO 2—Fitness Management (K.2.5.C.2)	♦ **Fit Factors** Brainstorm with students a list of factors affecting the development of personal fitness. Have students participate in a Think-Pair-Share activity and look at each of the ideas generated by the group. Have students decide what effect each of the ideas has on their own fitness development. Discuss ways to change negative effects into positive ones to improve personal fitness. ♦ **Fitness Plan** Have students participate in a number of fitness-assessment activities and set goals for improvements. Ask students to do a self-assessment in their fitness journals, discussing the reasons why they were or were not able to reach their goals in each assessment activity.

TEACHER NOTES

Strong bones need both calcium and weight-bearing physical activity.

Calcium makes bones as strong as steel. When the body makes new bone tissue, it first lays down a framework of collagen. Then, tiny crystals of calcium from the blood spread throughout the collagen framework. The hard crystals fill in all the nooks and crannies. Calcium and collagen work together to make bones strong.

Bones are living tissue. Weight-bearing physical activity stimulates new bone tissue to form, making bones stronger. Also, weight-bearing physical activity makes muscles stronger, and muscles pushing and tugging on bones makes the bones even stronger.

The growing years are very important for bone development. So it is essential for students at this age to understand the effects

SUGGESTIONS FOR ASSESSMENT

- **Performance Tasks: Skeleton Project**
  Teacher Assessment: Scoring Rubric

  Have students complete the skeleton projects suggested for learning outcome K.2.6.C.1a. Assess projects using a scoring rubric.

  Refer to BLM G–9: Project-Assessment Rubric.

- **Questioning/Interview: Fitness Challenge**
  Teacher Assessment: Inventory

  Have students use a thumbs-up approach in responding to questions related to which station activity increased bone mass/density and which did not.

TEACHER NOTES *(continued)*

of healthy eating and weight-bearing exercise on bone development.

For additional information, see the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention website: <http://www.cdc.gov/powerfulbones/>.

Continue with the Fit Factors learning activity throughout the year. Spend a short time at the beginning of class to introduce a few fitness concepts.

For information on the Think-Pair-Share strategy, see *Success for All Learners* 6.13.

- **Questioning/Interview: Fit Factors**
  Teacher Assessment: Inventory

  After the Think-Pair-Share activity, have students express their ideas to the class. Record the ideas on a chart or chalkboard. Have students identify the factor that most affects their development.

- **Journal/Learning Log: Fitness Plan**
  Self-Assessment: Rating Scale

  Have students complete a rating scale such as the following after they have completed the second trial of fitness assessments and they can analyze why goals were or were not achieved.

  Refer to BLM 5–8: Fitness Goal Factors.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
Students will...	
❑ **K.2.6.C.3 Identify the proper techniques** (e.g., slow and sustained, within comfort zone, focusing on target muscles and minimizing other body parts, stretching to the limit of the movement, slow and rhythmical breathing...) **and harmful techniques** (e.g., bouncing, swinging, stretching too hard...) **in stretching exercises.** **Curricular Connections** **ELA:** GLO 1—Explore thoughts, ideas, feelings, and experiences. GLO 5—Celebrate and build community. **PE/HE:** GLO 2—Fitness Management (K.2.5.C.3)	♦ **Teacher-Led Stretches** Have students participate in teacher-led stretches, with discussion on safety and technique. ♦ **Follow the Leader** Divide students into small groups. As part of a cool-down, have one student per group lead the group in a number of stretches to improve flexibility. Leaders correct the group members if they are doing the exercises incorrectly.
❑ **K.2.6.C.4 Review behaviours** (e.g., make positive remarks, cheer for others, make encouraging gestures...) **that encourage effort and participation of others.** **Curricular Connections** **ELA:** GLO 1—Explore thoughts, ideas, feelings, and experiences. GLO 5—Celebrate and build community. **PE/HE:** GLO 1—Movement (S.1.5.D.2)	♦ **Lead-up Games/Activities** After students have participated in a physical activity, ask them for examples of behaviours by others that made them feel good and that made them want to continue playing the game. ♦ **Make up a Cheer** Have small groups use words and gestures to make up a cheer that would encourage their classmates to play their best. ♦ **Learning Outcome Connection** See learning outcome S.1.5.D.2. Discuss behaviours that encourage effort and participation of others.

TEACHER NOTES

Refer to learning outcome K.2.5.C.3.

Teachers must stay informed about contraindicated stretches and current stretching protocol.

For more information on "exercises to avoid," refer to current websites and other resources, such as *Fitness Education for Children* (Virgilio 166–168).

Fair-Play Ideals:

- Respect the rules.
- Respect the officials and accept their decisions.
- Respect your opponents.
- Give everyone equal/equitable opportunity to participate.
- Maintain your self-control at all times.

The fair-play ideals are identified on page 16 in the Leisure section of *The Canadian Active Living Challenge: Leader's Resource Tool Kit, Program 2* (CAHPER/CIRA).

For more information on fair play, see The Spirit of Sport Foundation website: <http://www.spiritofsport.ca>.

Language Link:

Have students create cheers in the local/home language, where appropriate.

SUGGESTIONS FOR ASSESSMENT

♦ **Observation: Follow the Leader**
Group Assessment: Checklist

Have group members complete the following checklist to assess the leader.

Cool-Down Stretches

Student _____

Group members _____

The leader ensured that

- ❑ stretches were performed slowly and held
- ❑ all major muscle groups were stretched
- ❑ students stretched to the limit of the movement
- ❑ stretches were performed safely

♦ **Questioning/Interview: All Activities**
Teacher Assessment: Inventory

As situations arise in games and activities when students are or are not behaving appropriately, ask students how these behaviours made them feel in terms of affecting their participation.

♦ **Observation: Make up a Cheer**
Group Assessment: Checklist

Have students in each group discuss what behaviours encouraged effort and participation of others.

Suggested Criteria:

Look for evidence of students

- ❑ encouraging others with non-verbal gestures
- ❑ encouraging others with positive remarks
- ❑ inviting others to play or take a turn
- ❑ helping others when experiencing difficulty
- ❑ being good listeners
- ❑ other

PRESCRIBED LEARNING OUTCOMES

Students will...

❑ **S.2.6.A.1a Participate in exercises/activities** (e.g., juggling for developing coordination, moving through obstacle course for agility...) **designed to improve and maintain personal fitness associated with health-related and skill-related fitness components.**

Curricular Connections

ELA:
GLO 5—Celebrate and build community.

MA:
Patterns and Relations
Statistics and Probability
Number

PE/HE:
GLO 1—Movement (K.1.6.A.1)
GLO 2—Fitness Management (K.2.6.A.1, K.2.6.C.3, S.2.5.A.1a)

SUGGESTIONS FOR INSTRUCTION

♦ Cardiovascular Endurance

Have students participate in a variety of cardiovascular activities for 10 to 15 minutes in their aerobic target heart-rate zone. Cardiovascular activities could include aerobics, step aerobics, dance, jump rope, orienteering, follow the leader runs, mass tag games such as Capture the Flag or Steal the Stick, and so on. Students can use heart-rate monitors or pulse counts to determine whether they are in their aerobic target heart-rate zone.

♦ Muscular Endurance/Strength Circuit

Have students participate in a muscular endurance/strength training circuit. Muscular endurance/strength exercises could include curl-ups, line jumps, push-ups, bench-steps, leg lifts, and so on. Ensure that students have a choice of repetitions suited to their personal fitness level.

♦ Follow the Leader

Refer to the Follow the Leader activity suggested for learning outcome K.2.6.C.3.

♦ Skill-Related Fitness Circuit

Have students participate in a circuit designed to develop skill-related fitness components.

Agility

- **Agility Runs:** Have students participate in a variety of agility runs. In the Zigzag Run, for example, students run to a line, pick up a beanbag, and take it back to the start. They repeat this three times.
- **Builders and Bulldozers:** Have students form two teams. Players on one team are the builders and players on the other are the bulldozers. Place cones around the gym. The bulldozers knock down the cones, while the builders try to put them up again. Reverse roles.

Balance

- **Gymnastic Activities:** Have students participate in gymnastic activities to improve their balance, with or without using equipment.
- **Balance Tag:** Have students play Everybody's It. A student who is tagged freezes in a balance position. To be freed, another student must mimic the balance for five seconds.

(continued)

TEACHER NOTES

For information on teaching considerations and implementation guidelines related to fitness management, refer to Guidelines for GLO 2—Fitness Management in the Overview of this document.

Due to the importance and the nature of fitness development/maintenance, learning experiences related to this outcome will be ongoing throughout the year. Assessment also needs to be ongoing to determine how students manage their fitness in class throughout the year.

Make appropriate adaptations or modifications for students with special needs or medical conditions in order to facilitate participation. Provide alternative activities for students who are not able to participate fully.

Refer to Appendix I: Glossary (as well as to the teacher notes for learning outcome K.2.6.A.1) for definitions of skill-related fitness components.

Skill-related fitness—refers to the ability to perform successfully during games and sports (also called performance fitness). The **skill-related fitness components** are: ability, balance, coordination, power, reaction time, and speed.

Refer to BLM G–11: Skill-Related Fitness Components Poster.

SUGGESTIONS FOR ASSESSMENT

♦ Observation: All Activities

Teacher Assessment: Scoring Rubric

As students participate in physical activities, observe their levels of participation and keep ongoing records for each term.

Participation Rubric	
Scale	The student is
4	• **always** ready to participate, highly involved, and on task
3	• **frequently** ready to participate, highly involved, and on task
2	• **sometimes** ready to participate, highly involved, and on task
1	• **rarely** ready to participate, highly involved, and on task

♦ Performance Task: Skill-Related Fitness Circuit

Self-Assessment: Inventory

Have students participate in skill-related fitness challenges, set personal goals, and assess individual progress.

Refer to BLM 6–5: Skill-Related Fitness Challenges and BLM 6–6: Skill-Related Goal Setting.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
Students will...	
❑ **S.2.6.A.1a** *(continued)*	*(continued)*

Coordination

- **Juggling:** Have students participate in a variety of juggling activities using scarves, balls, rings, clubs, sticks, and so on.
- **Kick Sack:** Have students practise kick sack activities.
- **Jump Rope:** Have students try some of the rope challenges in the Jump Rope for Heart Program.
- **Ring Toss:** Prepare a 15 cm stick with a string attached to the handle and six rings attached to points near the end of the stick. The object is to toss the string, catching the rings on the stick. Catching more rings requires more coordination.

Power

- **Power Circuit:** Have students participate in a power circuit that includes exercises such as the following: vertical jump, long jump, ball throw for distance, medicine ball throw for distance, and kick for distance.
- **One-Leg Hop Kick:** Have students jump from one foot, kick a suspended target, and land, all on the same foot, maintaining balance.

Reaction Time

- **Paper Catch:** Have students work with a partner. One student holds a piece of paper 10 cm above his or her partner's thumb and forefinger. The student drops the paper and the partner tries to catch it between the thumb and forefinger without moving the hand down.

Speed

- **Partner Races:** Have students choose a partner they want to race against. On the signal "Go," all students race their partner to the finish line. They can choose a new partner and try again.
- **Race against Time:** Have students work with partners. One student in each pair sprints a specified distance and the partner times the sprinter. After a rest, they repeat the run, trying to improve their time.
- **Speed Jump Rope:** Have students (individually or with a partner) count the number of pogo jumps they can do in one minute.

  Variation: Count the number of running steps, or hops on one foot.

TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

For more challenges, see the Jump Rope for Heart Program of the Heart and Stroke Foundation of Manitoba.

Emphasize with students that in order to improve personal fitness, one must increase the frequency (how often), intensity (how hard), and duration (how long) of performing an activity, and one must choose the appropriate type of activity (FITT principle).

If one is inactive, the muscles become smaller (atrophy) and lose strength, and breathing becomes less efficient because the lungs are not forced to expand.

Help students work towards maintaining lifelong physical activity by providing motivating and varied activities that develop confidence and competency.

Use strategies such as the following to accommodate fitness activities for all students, regardless of their ability levels or physical characteristics:

- Provide a choice of activities, where possible.
- Allow students to choose the number (e.g., 5, 10, 15) of repetitions of an exercise.
- Challenge students to perform exercises for a set time period (e.g., number of push-ups in 30 seconds, distance covered in 10 minutes) instead of setting a number that may be too hard for some and too easy for others.
- Provide motivation using developmentally appropriate fitness progressions for the development of muscular

TEACHER NOTES *(continued)*

endurance/strength. For example, a progression for the development of upper body strength could consist of push-ups standing and pushing away from the wall, then push-ups with knees touching the floor, and then push-ups with feet on the floor.

- Encourage all students by focusing on individual effort and improvement, rather than on the success of a few highly accomplished students.
- Establish a class atmosphere in which praise and group cooperation are evident for motivating students to achieve their personal best.

PRESCRIBED LEARNING OUTCOMES

Students will...

❑ **S.2.6.A.1b Demonstrate proper technique** (i.e., pacing) **while participating in continuous aerobic activity for a sustained period of time, while maintaining target heart rate.**

Curricular Connections

ELA:
GLO 1—Explore thoughts, ideas, feelings, and experiences.
GLO 5—Celebrate and build community.

MA:
Patterns and Relations
Statistics and Probability
Number

SUGGESTIONS FOR INSTRUCTION

♦ Distance Runs

While students participate in training for a 1600 m run, cross-country run, 12-minute run, or orienteering, have them monitor their aerobic target heart rate using heart-rate monitors, pulse sticks, and pulse checks. After the activity, discuss the importance of pacing.

Questions for Discussion:

- Is it a good idea to start running as fast as you can at the beginning of a run? Why or why not?
- What is a reliable sign that you are running at a good pace at the beginning and middle of your run?
- How does your pacing change towards the end of your run?

Variation: Have students participate in a continuous cross-country ski, jump rope, or aerobic activity.

♦ Prediction Run

Have students run a specified distance (e.g., 800 m, 1200 m) and time the run. Have students repeat the run on another day and predict what their time will be.

♦ Precision Run

Have students walk or jog for eight minutes. Students attempt to maintain their target heart rate throughout the run.

TEACHER NOTES

The fitness management outcomes link to the Active Living strand in GLO 5—Healthy Lifestyle Practices. There are also links between GLO 1—Movement and GLO 2—Fitness Management. Many of the movement activities can be designed to be more physically active in order to enhance students' fitness levels.

Pacing involves running at a comfortable pace, leaving a reserve of energy for a strong finish. Students' pace will increase as their cardiovascular endurance increases.

Physical Education Methods for Classroom Teachers (Human Kinetics, with Pettifor, 139) suggests teaching tips for fitness development:

- Never use fitness activities as punishment.
- Don't overemphasize fitness testing.
- Encourage students to set realistic goals and to celebrate progress and achievement.
- Don't underemphasize the importance of self-esteem to lifelong fitness.
- Clarify fitness goals, check for understanding of why activities are done, and relate fitness concepts to everyday experiences.
- Teach students the difference between initial fatigue and pain that may result in injury.
- Always ensure that environmental conditions are safe for all lessons.

SUGGESTIONS FOR ASSESSMENT

♦ Performance Task: Distance Runs

Self-Assessment: Checklist

Have students participate in the distance runs and then assess their ability to maintain their pace, keeping their heart rate within the aerobic target heart-rate (THR) zone.

Pacing in Distance Run			
Name _____	**Too Slow** (Below THR)	**Just Right** (Within THR)	**Too Fast** (Above THR)
Beginning of Run			
Middle of Run			
End of Run			

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
Students will...	
❑ **S.2.6.A.2 Compare own heart rate during aerobic activity to the general target heart-rate zones** (e.g., general health, basic fitness, healthy heart...).	♦ **Heart-Rate Predictions** Following a discussion of the target heart-rate zones, have students participate in a class that includes a number of different aerobic activities. Students predict what their heart rates will be for each activity. Using heart-rate monitors, pulse sticks, or six- or ten-second pulse checks, students record their heart rate at the end of each section of the class. During their cool-down, students determine which heart-rate zones they were in for each activity.

Curricular Connections

ELA:
GLO 1—Explore thoughts, ideas, feelings, and experiences.

MA:
Patterns and Relations
Statistics and Probability

TEACHER NOTES

Students are encouraged to work within their target heart-rate zones so that they accumulate 60 minutes of moderate physical activity and 30 minutes of vigorous physical activity daily to achieve health benefits associated with physical activity participation (see *Canada's Physical Activity Guide for Youth*: <http://www.hc-sc.gc.ca/hppb/paguide/youth.html>).

To develop aerobic capacity, the heart rate must reach a heart-rate range or zone to achieve the desired physiological benefits. Target heart-rate zones are calculated based on a percentage of maximum heart rate.

For example:

- Moderate health zone—50% to 70% of maximum heart rate.
- Aerobic health zone—70% to 85% of maximum heart rate.

Furthermore, to calculate an aerobic health zone for 9- to 12-year-olds (not taking resting heart rate into consideration), 70% to 85% of 210 (maximum heart-rate for ages 9 to 12) would be 145 to 180 beats per minute (rounding off to the nearest five). For a 10-second count, the pulse count would be 24 to 30 (Kirkpatrick and Birnbaum 9-10).

When using heart-rate monitors in Grades 5 and 6, the aerobic target heart-rate zone could be preset on watches prior to class. Note that some watches should be set for individual students with special conditions or needs.

SUGGESTIONS FOR ASSESSMENT

♦ **Journal/Learning Log: Heart-Rate Predictions**

Self-Assessment: Inventory

Have students participate in the Heart-Rate Predictions activities and record their results.

Heart-Rate Predictions

Fill in the predicted and actual beats per minute (bpm) and the corresponding target heart-rate zone for each activity.

Activity	Prediction	Actual	Zone
• Lying down for two minutes	_____	_____	_____
• Walking for two minutes	_____	_____	_____
• Jumping rope for two minutes	_____	_____	_____
• Jogging for four minutes	_____	_____	_____
• Shooting hoops for two minutes	_____	_____	_____
• Sprinting the length of the gym	_____	_____	_____
• Doing cool-down stretches	_____	_____	_____

Refer to BLM G–7: Heart-Rate Predictions.

TEACHER NOTES *(continued)*

For more information, refer to the following websites:

- Manitoba Marathon: <http://www.manitobamarathon.mb.ca/>
- Manitoba Physical Education Teachers Association (MPETA): <http://home.merlin.mb.ca/~mpeta/>

PRESCRIBED LEARNING OUTCOMES

Students will...

❑ **S.2.6.A.3a Demonstrate the use of assessment strategies** (e.g., activity log, activity calendar, stopwatch, computer database program, heart-rate monitor...) **to determine, organize, and record fitness results and physical activity participation.**

Curricular Connections

ELA:
GLO 1—Explore thoughts, ideas, feelings, and experiences.

PE/HE:
GLO 2—Fitness Management (S.2.5.A.3a)

SUGGESTIONS FOR INSTRUCTION

♦ Activity Log

Periodically have students keep track of their participation in physical activity. Students take home an activity log and record their activity for a specified period of time.

♦ Fitness Plan

Using results from fitness assessments, students record results and set goals for improvement. Students maintain records in their fitness journals.

♦ Fitness Assessments

Choose assessment tasks that help students determine personal fitness based on health-related fitness components.

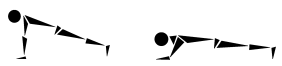
Examples:

Cardiovascular Endurance

- **6-, 8-, 10-, or 12-Minute Run:** Students count the number of laps completed in the time of the run.
- **Leger Beep Test:** This fitness test uses an audiotape to control timed runs over a measured course, and an audio tone communicates timing information for the test subjects (runners). The tests are run continuously until the subjects can no longer continue or start to miss (arrive late at lines). The highest running pace and number of repetitions that the runner can accomplish successfully is then the player's rating.
- **Walking Test:** Available online at <http://www.motivationstation.net>.

Muscular Strength and Endurance (specific to muscle groups)

- Push-ups (full or modified)



- Pull-ups

- Curl-ups

- Bench-Steps

Flexibility

- Modified Sit and Reach (one leg bent)

- Shoulder Stretch

TEACHER NOTES

Appropriate practices for physical fitness testing include

- ongoing assessment as part of an ongoing process of helping students understand, enjoy, improve, and/or maintain their physical health and well-being
- having students physically prepared so that they can safely complete each component of a physical fitness test battery
- sharing test results privately with students and their parents/guardians to foster the development of health-related fitness knowledge, understanding, and competence

Cardiovascular endurance runs based on time to run rather than distances to be covered motivate students towards achieving fitness. Timing a 1600-metre (one-mile) run may be a simple task to organize for large-group testing; however, having everyone run the same length of time means no waiting for slower runners and less chance of any students feeling embarrassed by their performances, as everyone succeeds at his or her own rate.

For more information, refer to *Canada's Physical Activity Guide for Youth* (Health Canada) at <http://www.hc-sc.gc.ca/hppb/paguide/youth.html>.

For physical fitness tests for special populations, see page 163 of *Physical Education for Elementary School Children* (Kirchner and Fishburne) and pages 25 and 29 of *Physical Best Activity Guide* (AAHPERD).

SUGGESTIONS FOR ASSESSMENT

♦ **Journal: Activity Log**
Self-Assessment: Inventory

Have students complete activity logs and record results in their journals.

Refer to BLM G–6: Physical Activity Log (PAL).

♦ **Journal/Learning Log: Fitness Plan**
Self-Assessment: Inventory

Choose a number of exercises or assessment tasks that measure health-related and skill-related fitness components. Explain proper technique, safety precautions, and procedures for each task. Have students practise the exercise or task, perform and assess it to determine their personal best, and set goals for personal improvement. Ask them to record this information.

BLM G–4: Personal Fitness Profile.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
Students will...	
❑ **S.2.5.A.3b ➟ S.2.6.A.3b** **Compare own fitness results and physical activity participation over a period of time** (e.g., beginning, middle, end of school year...) **to check and revise personal goals.**	♦ **Learning Outcome Connection** Have students use the information from activities suggested for learning outcome S.2.6.A.3a to set and revise goals. ♦ **Compare and Contrast** Have students graph results of their fitness scores and activity participation for a set period of time. Have them discuss these results with their parents/guardians as a take-home activity or part of a student-led conference at school.

Curricular Connections

ELA:
GLO 1—Explore thoughts, ideas, feelings, and experiences.

MA:
Statistics and Probability

PE/HE:
GLO 2—Fitness Management (S.2.6.A.3a)

TEACHER NOTES

Ensure that students focus on comparing their own results over a period of time rather than comparing themselves with others.

SUGGESTIONS FOR ASSESSMENT

- **Journal/Learning Log: Fitness Plan**
  Self-Assessment: Inventory

  Choose a number of exercises or assessment tasks that measure health-related and skill-related fitness components. Explain proper technique, safety precautions, and procedures for each task. Have students practise the exercise or task, perform and assess it to determine their personal best, and set goals for personal improvement. Ask them to record this information. Repeat this two or three times a year so that students can compare results.

  Refer to BLM G–4: Personal Fitness Profile.

- **Journal: Activity Log**
  Self-Assessment: Inventory

  Have students complete activity logs and record results in their journals. Repeat this two or three times a year so that students can compare results.

  Refer to BLM G–6: Physical Activity Log (PAL).

Fitness Management Outcomes: Grade 6

Knowledge

❑ **K.2.6.A.1 Recognize the health- and skill-related fitness components** (e.g., agility, power, reaction time, speed, coordination…) **that contribute to skill development.**

❑ **K.2.6.C.1a Identify the names of the main bones** (e.g., humerus, ulna, radius, femur, tibia, fibula, scapula, clavicle, ribs, pelvis, skull...) **and function** (i.e., shape, support, protection) **of the human skeletal system in the context of exercise and physical activity.**

❑ **K.2.6.C.1b Describe the effects of exercise and inactivity on the human skeletal system** (i.e., increased/decreased bone density, increased/decreased bone mass).

❑ **K.2.5.C.2 ➠ K.2.6.C.2 Show an understanding of the factors** (e.g., planning, regular participation, effort, adequate information, motivation, commitment, regular monitoring...) **affecting personal fitness development.**

❑ **K.2.6.C.3 Identify the proper techniques** (e.g., slow and sustained, within comfort zone, focusing on target muscles and minimizing other body parts, stretching to the limit of the movement, slow and rhythmical breathing...) **and harmful techniques** (e.g., bouncing, swinging, stretching too hard...) **in stretching exercises.**

❑ **K.2.6.C.4 Review behaviours** (e.g., make positive remarks, cheer for others, make encouraging gestures...) **that encourage effort and participation of others.**

Skills

❑ **S.2.6.A.1a Participate in exercises/activities** (e.g., juggling for developing coordination, moving through obstacle course for agility...) **designed to improve and maintain personal fitness associated with health-related and skill-related fitness components.**

❑ **S.2.6.A.1b Demonstrate proper technique** (i.e., pacing) **while participating in continuous aerobic activity for a sustained period of time, while maintaining target heart rate.**

❑ **S.2.6.A.2 Compare own heart rate during aerobic activity to the general target heart-rate zones** (e.g., general health, basic fitness, healthy heart...).

❑ **S.2.6.A.3a Demonstrate the use of assessment strategies** (e.g., activity log, activity calendar, stopwatch, computer database program, heart-rate monitor...) **to determine, organize, and record fitness results and physical activity participation.**

❑ **S.2.5.A.3b ➠ S.2.6.A.3b Compare own fitness results and physical activity participation over a period of time** (e.g., beginning, middle, end of school year...) **to check and revise personal goals.**

Attitude Indicators

2.1 Show an interest in and responsibility for personal fitness.

2.2 Appreciate the role and contribution of regular participation in physical activity for health and fitness.

2.3 Show respect and acceptance for physical and performance limitations of self and others.