Grade 3

2. Fitness Management

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



Students will...

☐ K.2.3.A.1 Discuss exercises and physical activities associated with health-related fitness components (e.g., running develops endurance of the heart, jumping activities develop muscular strength and endurance of the leg muscles...).

Curricular Connections

PE/HE: K.1.3.B.2 (application of force) **SC:** Cluster 3—Forces That Attract or Repel (strong and light force)

SUGGESTIONS FOR INSTRUCTION

♦ Mighty Muscles

Brainstorm with students a list of exercises/activities that increase muscular strength/endurance of the arms, legs, abdomen, and heart.

♦ Activity Word Wall

Have students use the Sort and Predict strategy to post the Mighty Muscles exercises/activities into the appropriate bodypart category (e.g., arms, legs, abdomen, heart) on a bulletin board. Discuss activities performed in relation to learning outcomes S.2.3.A.1a and S.2.3.A.1b and ask students to sort them into health-related fitness components: muscular strength, flexibility, muscular endurance, and cardiovascular endurance. (See Sort and Predict, *Success for All Learners*, 6.33.)

♦ Action Collage

Have students bring to class pictures of people with good muscular strength/endurance, flexibility, or cardiovascular endurance and assist them in making a collage.



SUGGESTIONS FOR ASSESSMENT

Health-Related Fitness Components:

Introduce, explain, use, and reinforce vocabulary for health-related fitness components:

- Muscular strength—the amount of force that can be exerted by a muscle or group of muscles in a single effort.
- **Flexibility**—the range and ease of movement of a joint (limited by bone, muscles, ligaments, tendons, and the bone-joint capsule).
- Muscular endurance—the ability of a muscle or group of muscles to exert force over an extended period of time without incurring fatigue.
- Cardiovascular endurance—the ability of the heart, blood vessels, and lungs to provide the working muscles with adequate oxygen during prolonged activity; also called aerobic endurance or capacity.

Reinforce that muscles are important for protecting the bones and organs and that strong muscles

- help us to lift things
- provide good posture
- prevent injury and back pain
- enable us to perform movement and sports skills more successfully

Fit Talk:

After each new exercise, game, or activity, discuss how the activity affects the body. Keep the discussion brief but repeat and reinforce "Fit Talks" throughout the year.

Students will...

□ K.2.3.B.1 Recognize that the body needs sustained or intermittent vigorous physical activity to improve the strength of the heart and lungs (e.g., running, skipping, cycling, swimming, soccer to accumulate at least 10 to 15 minutes of vigorous activity each day...).

Curricular Connections

MA: Shape and Space (length, height, distance using descriptive words, time of day, temperature, shapes, measures), Number (counting, adding with pictures, concept of half)

PE/HE: S.1.3.A.1 (transport skills), K.4.3.A.2a (goal setting)

SUGGESTIONS FOR INSTRUCTION

♦ Step by Step: You Bet!

Short- and long-term goal setting and pacing are the focus of this activity. Each week have students set a goal of continuous movement (e.g., to run or walk without stopping) for a set period of time. For example, students could set a short-term goal of moving continuously for one minute in the first week, two minutes in the second week, and so on, until they reach their long-term goal of a higher number of minutes (e.g., 12 minutes of continuous movement).

♦ The Heart and Lungs

Using a Think-Pair-Share strategy, have students work with a partner to answer the following questions:

- How is a heart like a turkey baster?
- How are the lungs like an unused balloon?
- How does exercise make your lungs more like a stretched, used balloon?

Have students share their answers in a large group. (See Think-Pair-Share, *K*–4 *ELA*, Strategies–15.)

♦ No Sweat!

Have students participate in various aerobic activities throughout the year and pose the following questions for reflection:

- If you practise running, does it get easier?
- Why is pacing important?
- How many minutes are you active each day? (Refer to Activity Chart, learning outcome S.2.3.A.3a.)
- Which activities are considered vigorous (see Appendix I: Glossary)?



SUGGESTIONS FOR ASSESSMENT

Refer also to the learning activities suggested for learning outcome S.2.3.A.1b.

The heart is like a pump that pushes blood and oxygen through the blood vessels to the muscles on each contraction. The stronger the heart is, the more easily blood and oxygen can be pushed to the muscles.

Lungs that are not used for exercise are like unused balloons, which do not easily fill with air. Lungs used for exercise can fill with air more easily.

Laminate signs and cards for longterm use. Include a variety of shapes such as hearts, geometric shapes, food items, and colours for motivation and theme connections.

♦ Questioning: Step by Step: You Bet!

Teacher: Inventory

Ask students how they improved from the beginning of the Step by Step activity until they reached their long-term goal. Have them describe the connection between physical activity and improved strength of the heart and lungs.

Suggested Criterion:

Look for

evidence of understanding that the body needs vigorous physical activity to improve the strength of the heart and lungs



Students will...

■ K.2.3.C.1a Show an understanding of the location, size, and function of the heart (e.g., in the chest area, size of a fist, pumps blood...).

Curricular Connections

MA: Shape and Space (length using descriptive words, capacity [full, empty], mass [lighter, heavier], time, shapes, measures)

☐ K.2.3.C.1b Identify short-term effects of exercise/physical activity on the body (e.g., pulse rate increases, shortness of breath, body temperature increases, perspiration occurs, fatigue sets in...).

Curricular Connections

MA: Patterns and Relations (sorting, graphing, patterns, sequence), Statistics and Probability (counting, measuring, formulating questions, reading graphs, pictograms), Shape and Space (length, height, distance using descriptive words, capacity [full, empty], time of day, temperature, shapes, measures)

♣ K.2.3.C.2* Show an understanding of the factors (e.g., planning, regular participation, effort, adequate information, motivation, commitment, regular monitoring...) affecting personal fitness development.

SUGGESTIONS FOR INSTRUCTION

♦ Heart Works

Provide the class with videos, CD-ROMs, books, models, diagrams, and/or pictures of the heart and have students research the location, size, and function of the heart. Compare the heart size and number of heartbeats per minute of different animal hearts.

♦ Body Parts

Provide students with paper to draw an outline of their bodies and have them label the various body parts affected by exercise, as reviewed in the Word Wall activity (learning outcome K.2.2.C.1a). Have them draw hearts that represent the size of their fists and place them on their outlines. Pair up students and have them use the Listen-Draw-Pair-Share strategy to activate their thinking. (See Listen-Draw-Pair-Share, *Success for All Learners*, 6.22.)

♦ Checkpoint

After students have participated in vigorous activity, ask them to record/write/draw (e.g., as a journal entry) at least three physical changes they noticed as they exercised.

♦ Learning Outcome Connections

Have students participate in the physical activities suggested for learning outcomes S.2.3.A.1a and S.2.3.A.1b and lead class discussion.

Questions for Discussion:

Use the following questions for discussion as they apply to the different activities:

- What changes occur in your body during activity? Describe them.
- Does your heart beat more slowly or faster after activity?
- Is your body warmer or cooler after being active?
- Do you breathe faster or more slowly during activity?
- Do you feel sweat on your body?
- At what point do your muscles feel tired?

^{*} The flower () indicates that the learning outcome could be introduced in this grade.



SUGGESTIONS FOR ASSESSMENT

Use analogies from The Heart and Lungs activity (see learning outcome K.2.3.B.1) to describe to students how the heart pumps oxygen and energy to the body at rest and during activity. Muscles need oxygen and energy to move at any time, and even more during exercise, which is why the heart beats faster and the lungs breathe faster during exercise.

Models of the heart may be available in the school library or the school division/district resource centre.

♦ Questioning/Interview: Heart Works

Teacher: Informal Inventory

Ask students to show the location, size, and function of their hearts by placing a fist on their chests. Have them open and close the fist in a pumping action.

Suggested Criteria:

Look for

	proper	fist	location	on	chest
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- clenched fist to indicate approximate heart size
- continuous squeezing of fist to indicate pumping action/function of the heart

Pulse rate—the measure of the heart's mechanical work in the circulatory system or the number of times the heart sends blood into the blood vessels, normally expressed as beats per minute.

Although children produce more body heat than adults do during physical activity, they perspire much less. Since children cannot tolerate heat as well as adults can, be sure to provide them with water to drink. Avoid having them exercise vigorously in extremely hot and humid conditions.

Hand-held pulse rate bars can be used to give immediate results on heart rates.

♦ Journal Entry: Checkpoint

Teacher: Checklist

Collect journals and determine whether student responses meet the suggested criterion.

Suggested Criterion:

The student

an name three different physical changes to the body that occur during exercise



Students will...

■ K.2.2.C.3 **★** K.2.3.C.3

Recognize that proper warm-up activities (i.e., light aerobic activity, stretching exercises) prepare muscles for vigorous activities (e.g., warm-up activities increase blood circulation and elasticity of muscles and ligaments...).

Have groups of three or four students follow a leader through a

☐ K.2.3.C.4 Identify personal

factors (e.g., interests, personal success, previous experiences, type of activities, developmental rates...) that influence physical activity participation and build selfconfidence.

Curricular Connections

ELA: GLO 1—Explore thoughts, ideas, feelings, and experiences (express ideas, consider others' ideas, experiment with language and form, express preferences, set goals, develop understanding, explain opinions, combine ideas, extend understanding)

PE/HE: K.1.3.B.1

SUGGESTIONS FOR INSTRUCTION

Warming Up

Have students participate in the activities suggested for learning outcome K.2.2.C.3, such as Aerobic Routine, Beach Days, and Star Adventure.

Mystery Leader

Have students form a circle. Choose one person to be the "guesser" and ask this person to close his or her eyes or leave the gymnasium. Select a "stretch leader." When the guesser returns to the room, the appointed leader secretly leads the group in a stretch session, changing the stretch every 15 seconds. The guesser tries to guess who the mystery leader is. Select other students to be the leader and the guesser.

Colonel Crunch

warm-up activity or exercise (e.g., abdominal muscle "crunches"). After each exercise, a new group leader moves forward and suggests a warm-up activity for a new body part or area of the body.

Your Favourites

Interview students to determine their favourite sports, gym activities, recess games, and so on. Have students complete surveys to indicate their interests and preferences. Use the surveys and activities suggested for learning outcome S.2.3.A.3a to discuss individual choice and personal factors influencing participation.

Juggling

Have students participate in juggling activities using scarves, then beanbags, and then balls. Progressions move from a oneobject toss, to a two-object toss, to a three-object toss. Use the following questions for reflection:

- How did you feel when you first started to juggle?
- How did you feel after each practice session?



SUGGESTIONS FOR ASSESSMENT

Warm-ups serve the purpose of developing physical fitness and preparing the body for the main lesson activities. Proper warm-ups include two phases: a light to moderate aerobic activity, followed by one or more dynamic stretching exercises for each muscle group. For example, for a 30-minute class, a warm-up with about three to five minutes of gentle whole-body exercise is an effective way to offer instant activity when the class arrives at the gymnasium.

Factors influencing participation in physical activity are very individualized (e.g., developmental rates, body weight); therefore, this learning outcome needs to be treated with sensitivity.

Provide students with key words to compliment each other (e.g., nice try, you can do it).

♦ Reflection: Your Favourites

Self-Assessment: Inventory

Have students list their 10 favourite physical activities in the first column of BLM 3–2. In the second column, have them put symbols that apply to each activity to show factors that affect their participation in physical activity.



See BLM 3–2: My Favourite Physical Activities.

Suggested Criterion:

Students are able to

analyze the activities to recognize some of the factors that helped to increase their participation



Students will...

☐ S.2.3.A.1a Participate in exercises/activities that increase flexibility, muscular strength, and muscular endurance.

Curricular Connections

PE/HE: S.1.3.A.3 (transport skills)

SUGGESTIONS FOR INSTRUCTION

♦ Bucket of Fun

Laminate slips of paper, with specific stretch or strength exercises on them, and place them in a bucket. Include "fun" activities such as "Give the teacher a high-five." or "Touch three different colours of socks." Have students jog two laps, choose a slip from the bucket, follow the instructions, return the slip to the bucket, and then jog two more laps before pulling the next slip. Continue for a specific period of time.

♦ Scooter Play

Have students participate in a variety of play and game activities, where they move in many different ways using their arms and legs (e.g., scooter soccer, scooter hockey, relays).

♦ Show Me a Way

Using a movement education approach, present students with different movement tasks that include the components of fitness in a fun way (e.g., "Show me a way you can: make a bridge, turn it over, lower it, raise it, make it wider."). Since students each do the challenges in their own way, they can all experience success.

♦ Muscular Strength and Endurance Activities

Challenge students to improve their muscular strength and endurance. Have them participate in a variety of safe activities that allow them to take their body weight partially on their hands, suspend their bodies, climb, jump, and land from playground or large equipment, and so on.

Examples:

- Safe Landings (see learning outcome S.1.3.A.3)
- Landings Circuit (see S.1.3.A.3)
- frog balance, V-sit, L-sit
- rope climbing
- arm-hang stations
- medicine ball activities
- Voyageur Theme Stations (see K.1.3.B.2)
- Inuit Games (see K.1.3.B.2)

Variation: Set up station activities and have students complete an "I can" checklist.



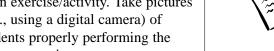
Due to the importance and the nature of fitness development, learning experiences related to this outcome will be ongoing throughout the year.

Observation: All Activities Teacher: Participation Rubric

Warm-up cards should include diagrams, graphics, or photographs of an exercise/activity. Take pictures (e.g., using a digital camera) of students properly performing the various exercises.

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

SUGGESTIONS FOR ASSESSMENT





See BLM G-3: Participation Rubric (Appendix H).

Fitness Components:

- Flexibility—the range and ease of movement of a joint (limited by bone, muscles, ligaments, tendons, and the bone-joint capsule).
- **Muscular strength**—the amount of force that can be exerted by a muscle or group of muscles in a single effort.
- Muscular endurance—the ability of a muscle or group of muscles to exert force over an extended period of time without incurring fatigue.

See Up Down All Around (Russell, Schembri, and Kinsman) for activities involving landings, arm hangs, and balances.

Encourage students to think of stretches that they can perform at home (e.g., while watching television).

To maintain muscular balance, it is important to involve all major muscle groups (shoulders, arms, chest, back, trunk, and legs) in muscular strength and endurance exercises/activities. Also, ensure that students perform exercises with proper body alignment, as well as on each side of the body, where applicable.

TEACHER NOTES (continued)

Many gymnastic activities effectively contribute to strength, flexibility, and, at times, cardiovascular endurance. Specifically, gymnastic activities can be adapted to enhance physical fitness, as follows:

- Enhance strength and endurance of arm and shoulder muscles with activities using climbing ropes, overhead ladders/monkey bars, and outdoor climbing apparatus that stress weight bearing and transfer of weight.
- Enhance flexibility by performing activities such as various animal walks, specific gymnastic stretches, and body rotations.

See also Parachute Fun, learning outcome S.2.K.A.1a.



Students will...

☐ S.2.3.A.1b Maintain participation in moderate to vigorous activity that contributes to aerobic capacity for short (e.g., intermittent...) and longer periods of time (e.g., sustained...).

Curricular Connections

MA: Shape and Space (length, height, distance using descriptive words, time of day, temperature, shapes, measures), Number (counting, adding with pictures, concept of half)

□ S.2.2.A.2 ➡ S.2.3.A.2 Determine own degree of exertion through simple methods (e.g., put hand on chest to feel increase in heart rate, "talk test"...) while participating in physical activities.

Curricular Connections

MA: Shape and Space (length, height, distance using descriptive words, time of day, temperature, shapes, measures), Number (counting, adding with pictures, concept of half)

SUGGESTIONS FOR INSTRUCTION

♦ Lucky 13 Run

Divide the class into teams of five or six players. Stand at the centre intersection of a running route shaped like a figure eight, holding a bag filled with many cards numbered 1 to 13. As students run the route, hand them a numbered card each time they pass by the centre. At the end of a set time, have the teams place their numbered cards together and count them using a predetermined method.

Examples:

- Pick out your five highest numbers and add them up. The team with the highest score wins.
- Pick out your five lowest numbers and add them up. The team with the lowest score wins.

Lengthen time duration as students improve their endurance. Because students run at their own rate for a set amount of time, everyone succeeds. Even though the athletic students may receive more cards, that is no guarantee that their team will win.

♦ Jump-Rope Challenges

Challenge students with the following tasks:

- How many skips can you do in one minute?
- For how long can you skip?
- Can you skip your grade in minutes? (e.g., three minutes for Grade 3)

♦ Heartbeat

Have students put their hands on their chests to feel their heartbeats at rest. After students have participated in activities such as those suggested for learning outcomes S.2.3.A.1a and S.2.3.A.1b, ask them to check their heartbeats again to notice the increase. Have students work in pairs using the Think-Pair-Share strategy to discuss the changes in their heart rates after the various activities and note whether the flexibility activities increase their heart rates as much as other activities do. (See Think-Pair-Share, *K*–4 *ELA*, Strategies–15.)

♦ Walkabout

Have students work in pairs to take the "talk test." Encourage partners to converse as they walk at a comfortable pace for a few minutes. Increase the pace to speed walking, jogging, and then running very fast. Lead the class in a discussion about their observations during the various phases of this investigation. Have students chart or graph their "talk test" results.



SUGGESTIONS FOR ASSESSMENT

The fitness management outcomes link to active living in GLO 5— Healthy Lifestyle Practices. There are also links between GLO 1— Movement and GLO 2—Fitness Management, since many of the movement activities also contribute to fitness development.

Examples:

K.1.3.C.2

• Fitness Dodge Ball

K.1.3.C.3

- Keep Away
- Mat Basketball

S.1.3.A.1

- Follow the Signs
- Relays

S.1.3.D.1

- More Basic Aerobic Patterns
- Jump-Rope Routine

♦ Observation: All Activities

Teacher: Scoring Rubric

Observe students as they participate in the activities. Using BLM G–8, fill in the names of students in the category describing their performance level. As a timesaver, fill in only the names of students achieving a "3" or a "1" during the activity and add the other names later.



See BLM G-8: Aerobic Capacity Rubric (Appendix H).

Heart rate—the number of beats of the heart, normally expressed as beats per minute.

For running activities, encourage students to "pace" themselves rather than "race." Being able to talk while jogging serves as a benchmark for an appropriate pace.

Students will...

☐ S.2.3.A.3a Record participation in daily physical activities (e.g., at home, at school, in the community...) over a period of time (e.g., a week, a day...) to determine level of physical activity participation.

Curricular Connections

MA: Patterns and Relations (sorting, graphing, patterns, sequence), Statistics and Probability (counting, measuring, formulating questions, reading graphs, pictograms, predicting chance [sometimes, never]), Number (counting, adding with pictures, concept of half)

PE/HE: K.5.3.B.2 (active living)

SUGGESTIONS FOR INSTRUCTION

♦ Activity Chart

Provide students with a one-week activity chart and ask them to

- record activities in which they participate at home, at school (e.g., recess), or in the community (e.g., lessons, sports teams) throughout the week
- list the person(s) with whom they did the activity (e.g., friend, team, grandparent, sister)

♦ Activity Survey

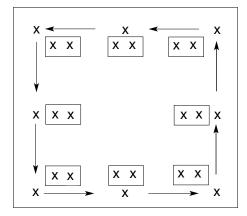
Discuss with students activities they do around the house/apartment or yard that help increase their heartbeats.

♦ Recess Play

Discuss with students activities they do at recess that help increase their heartbeats. Brainstorm a list of the various activities that students participate in at recess. Have students draw or collect pictures/graphics/clipart to be used to develop a record of the recess activities. Ask them to circle or check off the activities on the list that they participate in during recess.

♦ Musical Mats

Divide the class into groups of three students. Have each group place a mat inside a perimeter line in the gymnasium. When the music starts, the first student of each group starts moving around the gymnasium in the stated manner (e.g., run, hop, gallop, skip, slide). When these students return to their mats, they tag off the next runner to go, and so on. When the music stops, the runners still out on the floor must continue moving to their mats, trying not to be the last to return.



Emphasize that many activities besides sports, playing, and exercising contribute to good health (e.g., walking the dog, participating in family hikes, shovelling snow, raking leaves, taking out garbage).

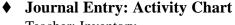
Encourage students to accumulate more than 60 minutes and up to several hours per day of appropriate activities.

Some of the daily activity should be in periods lasting 10 to 15 minutes or more and include moderate to vigorous activity. This activity will typically be intermittent in nature, involving alternating moderate to vigorous activity with brief periods of rest and recovery (Corbin and Pangrazi, 8):

- Moderate activity approximately 60% to 70% of maximum aerobic capacity.
- Vigorous activity approximately 70% to 85% of maximum aerobic capacity (Kirchner and Fishburne, 146).

Fitness calendars (placed either on bulletin boards or in school newsletters) are good ways to encourage students and families to participate daily in a wide range of activities. More ideas are available from Health Canada's physical activity promotions (e.g., Summeractive and Winteractive programs).

See also *The Canadian Active Living Challenge: Leader's Resource Tool Kit, Program 1* (CAHPER/CIRA).



Teacher: Inventory

Collect completed activity charts and check for the specified criteria.

SUGGESTIONS FOR ASSESSMENT

Suggested Criteria:

Look for

- completed chart
- level of participation in physical activity based on the recommended amount:
 - accumulation of more than 30 minutes and up to two hours per day
 - participation in moderate to vigorous activities lasting 10 to 15 minutes each day





Fitness Management Outcomes: Grade 3



Knowledge

☐ K.2.3.A.1 Discuss exercises and physical activities associated with health-related fitness components (e.g., running develops endurance of the heart, jumping activities develop muscular strength and endurance of the leg muscles...).

■ K.2.3.B.1 Recognize that the body needs sustained or intermittent vigorous physical activity to improve the strength of the heart and lungs (e.g., running, skipping, cycling, swimming, soccer to accumulate at least 10 to 15 minutes of vigorous activity each day...).

☐ K.2.3.C.1a Show an understanding of the location, size, and function of the heart (e.g., in the chest area, size of a fist, pumps blood...).

☐ K.2.3.C.1b Identify short-term effects of exercise/physical activity on the body (e.g., pulse rate increases, shortness of breath, body temperature increases, perspiration occurs, fatigue sets in...).

□ K.2.2.C.3 Recognize that proper warm-up activities (i.e., light aerobic activity, stretching exercises) prepare muscles for vigorous activities (e.g., warm-up activities increase blood circulation and elasticity of muscles and ligaments...).

☐ K.2.3.C.4 Identify personal factors (e.g., interests, personal success, previous experiences, type of activities, developmental rates...) that influence physical activity participation and build self-confidence.

Skills

☐ S.2.3.A.1a Participate in exercises/activities that increase flexibility, muscular strength, and muscular endurance.

☐ S.2.3.A.1b Maintain participation in moderate to vigorous activity that contributes to aerobic capacity for short (e.g., intermittent...) and longer periods of time (e.g., sustained...).

□ S.2.2.A.2 ► Determine own degree of exertion through simple methods (e.g., put hand on chest to feel increase in heart rate, "talk test"...) while participating in physical activities.

☐ S.2.3.A.3a Record participation in daily physical activities (e.g., at home, at school, in the community...) over a period of time (e.g., a week, a day...) to determine level of physical activity participation.

Attitude Indicators

- 1.1 Show a willingness to participate in a variety of physical activities.
- 1.2 Express enjoyment in a variety of movement experiences.
- 1.3 Appreciate that time, commitment, and practice are required for skill development.
- 1.4 Appreciate the aesthetic and athletic values of movement.
- 1.5 Appreciate and respect diversity while participating in physical activity.
- 1.6 Appreciate and respect the natural environment while participating in physical activity.