

Training for an Expedition

Integration: Health (Personal Health); Physical Education

Grade Levels: 3-6

Time: 1-2 class periods plus a follow-up after 1 week

Materials:

- *Exercise is Important* handout
- *Types of Exercises* worksheet
- *Exercise Log* worksheet

Objectives:

Students will:

1. Explain the importance of exercise to their health.
2. Examine the kind of exercise necessary to prepare for an Antarctic Expedition.
3. Perform exercises.
4. Examine their own exercise behavior and evaluate it.

Lesson:

Full group

1. Ask students why it is important to exercise.
 - a. Exercise helps your muscles become stronger.
 - b. Exercise helps you to control your weight.
 - c. Exercise helps your heart work more efficiently.
 - d. Exercise helps prevent injuries to the muscles and joints.
2. Tell students that there are two types of exercises: aerobic and anaerobic.
 - a. Aerobic exercises increase your heart rate and cause your body to use more oxygen.
 - b. Anaerobic exercises don't increase your heart rate but are also good for you. They include stretches.
3. Tell students that it is very important to exercise on a regular basis to become fit. The more fit you are, the longer you can exercise without becoming tired.
4. Ask students the following questions
 - a. Is it necessary to exercise before running a race?
 - b. Is it necessary to exercise before attempting to climb a mountain?
 - c. Is it necessary to exercise before trying to cross Antarctica?

5. Tell students that it is especially important for Antarctic explorers like Ann Bancroft and Liv Arnesen to prepare their bodies for the work that is necessary to ski across Antarctica. Tell student that they will ski for about 8 hours each day and cover 15 to 24 miles (24 to 40 km).
6. Ask students what it means “to train” when talking about exercise. To train means to prepare oneself to perform a physical feat.
 - a. Ann and Liv have to “train” to prepare their bodies to perform during the Expedition.
7. Tell students Ann Bancroft and Liv Arnesen train everyday and describe their routines.
 - a. They start their preparation for Expeditions by running. They may run with heavy backpacks to make it more challenging.
 - b. When snow comes, they continue to run but they also ski and practice the techniques they use in Antarctica by pulling heavy sleds and by practicing with their sails.
 - c. The last four months before the trip, Liv and Ann go into intense training. They train four to six hours each day with even longer days sprinkled in each week. An interesting exercise they perform is running while pulling tires (three each) behind them on gravel roads or wooded paths. This simulates how it feels to pull a sled across the ice.
8. Explain to students that Ann and Liv understand the importance of exercise. They exercise every day regardless of whether they are training for an Expedition.
9. Students will read the *Exercise Is Important* handout and complete the *Types of Exercises* worksheet.
10. After students complete the worksheet lead a discussion of the answers.
11. **Performing Exercises:** *This part of the lesson can be coordinated with the Physical Education teacher.*
12. Tell students they will practice some exercises.
13. Inform students that an easy way to achieve 20 minutes of aerobic activity is by walking briskly. Walking briskly is walking at a pace that allows your heart to beat faster.
 - a. Lead the students on a brisk walk around the campus or around the gymnasium.
 - b. Tell them it will be an abridged walk because of the time constraints in the class.

EXTENSION: Encourage students to check their pulse before, during, and after exercising to determine if their hearts are beating faster. Tell students to place their thumb on the inside of the opposite wrist until they find

the pulse. They can qualitatively decide if their heart rate has increased or they can count the number of beats in a minute.

14. Examples of other exercises that can be performed in the classroom (*from Get Fit: A handbook for youth age 6-17*, The President's Council on Physical Fitness and Sports, 1995)

a. Swinging march

- Stand with feet shoulder-width apart and hands at your sides.
- Alternate the left and right arms in forward circle motions.
- At the same time, lift the opposite knee (when right arm is circling, the left knee is raised).
- Do 10 complete circles with each arm and then repeat going backward.

b. Jumping Jacks

- Stand straight with feet together and hands at your sides.
- Jump up and land with feet shoulder-width apart and arms at shoulder height.
- Jump back to the starting position and clap your hands over your head.
- Jump up and land with feet at shoulder-width apart and arms at shoulder height.
- Jump back to the starting position with your arms back at your sides.
- Repeat 10-20 times.

c. Back stretch

- While sitting or standing, raise your right hand in the air with your palm facing your back.
- Bend your elbow and touch your back with your palm.
- Bring your left hand behind your back and try to touch your right hand.
- Hold 10-30 seconds.
- Perform this stretch two times on each side.

15. After performing some exercises in the class, distribute the *Exercise Log* worksheet. Explain to students that they are to record how they exercise each day for a week.

16. In one week, revisit the *Exercise Log*.

a. Have students pair up to discuss their logs.

b. Students should discuss

- what exercises they did
- why they did not exercise as frequently as they should have
- how they can improve
- if they have been exercising regularly, whether they feel a difference in their fitness.

EXTENSION:

- Plan a short exercise to do with students daily.
- Invite personal trainers or physical therapists to speak to students about the importance of exercise.

Assessment:

Teachers will assess:

1. Student's understanding of the benefits of exercise.
2. Student's understanding of the importance of Antarctic explorers' physical preparation before an expedition.
3. Student's evaluation of their own exercise behavior.