

LESSON 2: Exercise Your Superpower!

LESSON OVERVIEW

This lesson begins with a brainstorm about the positive effects of physical activity. Students will participate in a “popcorn share” of what they know about the health benefits of physical activity. The class will review information about the circulatory and respiratory systems and students will read a short informational passage about how physical activity prevents illness, contributes to better sleep, has mood-boosting effects, increases energy, and improves concentration. Students will consider the benefits of physical activity and identify which benefits they personally find to be the most motivating. Finally, students will create comic strips showing the “superpowers” of physical activity. The comic strips will be shared and then collected together to make a comic book about the benefits of physical activity.

OBJECTIVES

- Learn the health benefits of physical activity.
- Identify the impact physical activity has on the circulatory and respiratory systems.

TOPIC

Health Benefits of Walking and Bicycling to School (Science Focus)

STANDARDS SUPPORTED IN THIS LESSON

Common Core State Standards for English Language Arts

Reading Standards for Informational Text

Grade Four

- **CCSS.ELA-Literacy.RI.4.2:** Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Grade Five

- **CCSS.ELA-Literacy.RI.5.2:** Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

California Health Education Content Standards

Nutrition and Physical Activity – Grade Five

Standard 1: Essential Concepts

- **1.10N:** Describe how physical activity, rest, and sleep are related.
- **1.11N:** Identify physical, academic, mental, and social benefits of regular physical activity.

California Science Content Standards

Life Sciences – Grade Five

- **2.b:** *Students know* how blood circulates through the heart chambers, lungs, and body and how carbon dioxide (CO₂) and oxygen (O₂) are exchanged in the lungs and tissues.

National Health Education Standards for Grades Three to Five

Standard 1: Essential Health Concepts

- **1.5.1:** Describe the relationship between healthy behaviors and personal health.
- **1.5.2:** Identify examples of emotional, intellectual, physical, and social health.

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MATERIALS NEEDED

- *Physical Activity: Why Do It?* handout (1 per student)
- Comic book templates (2 kinds; at least 1 per student)
- Sticky notes (1 per student)
- Chart paper (1 piece)
- Markers (1 per group of 4 students)

PREPARATION ACTIVITIES

- Make copies of *Physical Activity: Why Do It?* handout and comic book templates.
- On the top of the piece of chart paper write “**We Are Physically Active Because...**”
- Consider locating visuals of the circulatory and respiratory system to show as support materials during this lesson. More information and examples of visuals are available at <http://kidshealth.org/kid/htbw/lungs.html#> and http://kidshealth.org/parent/general/body_basics/heart.html.

STEPS FOR CLASSROOM ACTIVITY

Popcorn Share (5 minutes)

- Ask students to think about the benefits of physical activity. Explain that physical activity is any bodily movement produced by contracting your muscles and results in burning energy in your body. Tell students that exercise is a kind of physical activity that is planned, structured, and repetitive. Give students a minute of think time and then ask them to popcorn share, each sharing their idea of a benefit of physical activity with the class.
- When using the popcorn share strategy, students can share their ideas when ready, in no particular order and without raising their hands, so long as only one person talks at a time.

Physical Activity: Why Do It? (20 minutes)

- Review the circulatory and respiratory systems. Begin by asking students to share what they know about the circulatory system. Ask students to think about the effects of physical activity on the circulatory system. Try to touch on the following key points:
 1. The circulatory system helps blood move through your heart and around your body.
 2. Blood delivers oxygen to your body’s cells, which is necessary to keep your body alive.
 3. Physical activity strengthens your heart and helps improve circulation.
- Have students share what they know about the respiratory system. Ask students to think about the effects of physical activity on the respiratory system. Try to touch on the following key points:
 1. The respiratory system brings oxygen into your body and removes carbon dioxide from your body.
 2. The main organs in the respiratory system are the lungs. As you breathe in, your lungs fill with air. In the walls of your lungs, your heart pumps blood that absorbs the oxygen from the air. While in your lungs, the air picks up carbon dioxide. When you exhale the air, the carbon dioxide leaves your body.
 3. Physical activity helps strengthen the lungs and breathing muscles. The more physical activity you do, the more efficient your lungs and heart get at delivering oxygen. If you start being really physically active, you may notice that you get less out of breath than you are used to. This is because your lungs and heart have gotten stronger!

PREPARATION TIME

5 minutes

ACTIVITY TIME

60 minutes

VOCABULARY

Circulatory System—The system that moves blood through your heart and around your body.

Respiratory System—The system that brings oxygen into your body and removes carbon dioxide from your body.

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- Pass out the *Physical Activity: Why Do It?* handout and give students time to read independently. When everyone is done reading, call the class back together.
- Ask students to identify the main idea and supporting details of the *Physical Activity: Why Do It?* handout.
- After thinking about what they have read, ask students to consider why they are physically active. Ask students to share which benefits of physical activity they find the most appealing.
- Pass out a sticky note to each student. On the sticky note, have students write one reason why they are physically active. Have students stick their notes on the “**We Are Physically Active Because...**” chart paper.
- After all the notes have been stuck on the chart paper, ask students to reflect on what they see. What are the most common reasons why students are physically active? What are the least common? Lead a discussion on motivation, talking about the influences that impact people’s decisions to be physically active or not be physically active.



Jill N., San Leandro, California

Comic Strip (20 minutes)

Note: If students need more time to complete this activity, consider sending their comic strips home for homework or finding another time in class when students can finish their comic strips.

- Tell students that physical activity is kind of like a superpower. Superpowers allow superheroes to do amazing things. So does physical activity!
- Using what they learned from the *Physical Activity: Why Do It?* handout, have students pick one superpower of physical activity that they would like to focus on. Possible superpowers could be the ability to improve sleep, the ability to strengthen the heart, the ability to improve moods, the ability to improve academic scores, etc.
- Tell students that they will be making comic strips to illustrate the superpowers of physical activity. To illustrate their chosen superpower, they should create a short scene to show how physical activity creates their superpower. For example, the “*Exerciser*” superhero could take people through a series of exercises, causing their moods to immediately change from grumpy to happy.
- Show students the two comic book templates and model how to use both. Tell students that they will just be sketching their comics and should not spend too much time adding details to their drawings. The important component of this activity is for students to show what they learned about the benefits of physical activity.
- Give students a few minutes to think about their superhero. Have students turn to a partner and share what their superhero’s superpower is.

Gallery Walk (5 minutes)

- As students finish, have them lay their comic strips face-up on their tables. When everyone is finished, give students time to walk around the classroom and look at each other’s comic strips.
- After class, collect all the comic strips to make a larger comic book about the benefits of physical activity.

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Ideas for Extending the Lesson

- Have students create comic strips that include “health villains” (high blood pressure, obesity, etc.). Talk about barriers to being healthy and have students include interactions between physical activity superheroes and health villains.
- Arrange to have your students share their comic strips with another class. Consider having your students use their comics to teach younger students about the benefits of physical activity.
- For homework, have students survey family members about why they are or are not physically active. Analyze the positive and negative influences on people’s decisions to be physically active.
- Put students into small groups and ask them to come up with a skit. The skit should involve all of the students’ superheroes. Have the groups perform their skits for each other.



Mariana C., Palm Springs, California



How did you get to school today? Maybe you walked, bicycled, were driven in a car, or rode the bus. If you walked or bicycled you not only made it to school, but you also were physically active while you were at it!

You've probably heard people talk about how important it is to be physically active. You might wonder, why is physical activity important? There are many reasons. First of all, physical activity keeps your body healthy. Physical activity helps the circulatory system by strengthening the heart and improving circulation. Physical activity helps the respiratory system by strengthening the lungs and breathing muscles. By helping your circulatory and respiratory systems work smoothly, physical activity prevents disease and illness. Healthy systems mean healthy people!

There are many more benefits of physical activity in addition to helping your body stay strong. Being physically active helps you sleep better at night, and it gives you more energy during the day. Physical activity also improves your mood and concentration. If you are feeling cranky, moving your body can help cheer you up. Next time you are in a bad mood, take a brisk walk! And guess what? There is more! Being physically active also can help you do better in school because it can improve your concentration.

Physical activity helps people to be happy, healthy, energetic, and well rested. How will you be physically active today?



