



Lesson 3 – Get Your Move On

Background Information

Physical activity involves using energy to move the body. Your **heart rate** and **breathing rate** change depending upon the degree of **intensity** of the activity. Heart rate may be measured by taking your **pulse** near your wrist or just under your jawline. A category of physical activity called aerobic activity causes you to breathe harder and your heart to beat faster. Aerobic activities can be low, moderate, or vigorous in intensity. Moderate physical activities may include walking, gardening, dancing, and golf. Vigorous physical activities may include running, swimming, and playing basketball. Stretching activities are low intensity, and help prevent injuries and improve **flexibility**.

The body needs oxygen to function and be active. **Inhaling oxygen** into your **lungs** enables the **heart** to pump oxygenated blood through **arteries** to the rest of the body. As the body uses its energy and oxygen, **carbon dioxide** is produced and **exhaled** out of the body.

Many health benefits result from regular physical activity. Some benefits of being active may include increased muscle and bone strength, sleep improvement, weight maintenance, and reduced risk of **chronic diseases** such as heart disease and type 2 diabetes. It is recommended that adults participate in at least 2 hours and 30 minutes of moderate physical activity per week, or 1 hour and 15 minutes of vigorous physical activity per week.



Concepts and Vocabulary

Artery: A vessel that carries blood from the heart to the rest of the body.

Breathing rate: The number of times an individual breathes in one minute.

Carbon dioxide: A gas produced by and exhaled from the body.

Chronic disease: A disease that lasts for a long period of time or persists in the body.

Exhale: To breathe air out of the lungs.

Flexibility: The ability to bend and move the body with ease.

Heart: The organ responsible for pumping blood through veins and arteries in the body.

Heart rate: The number of times an individual's heart beats in one minute.

Inhale: To draw air into the lungs.

Intensity: The level at which an activity is conducted, including mild, moderate, and vigorous intensities.

Lungs: The two organs responsible for breathing air.

Oxygen: A gas consumed by breathing that is necessary for life.

Pulse: The physical beat felt on the wrist or jawline as a result of an artery expanding due to blood movement.

3.1: Learning Activity

Overview

In this activity, participants will learn about physical activity intensity and the benefits of physical activity.

To do this, the learning activity asks participants to first review a set of cards with descriptions of different activities. In small groups, they organize these cards based on similarities and differences. Then they are provided with a handout describing the different intensities of physical activities, and are asked to reorganize their cards based on intensity of the activities.

After learning about intensity, participants are asked to engage in activities of different intensities and measure their heart rate and breathing rate. The lesson closes with a class discussion to explore their observations about the different intensities and some of the benefits of physical activity.

Getting Ready

Time Required

30 minutes

Materials Needed

(Materials provided in the curriculum)

For Each Group of 2-4 Participants <ul style="list-style-type: none"><input type="checkbox"/> Flip chart paper<input type="checkbox"/> Markers, pens, or pencils<input type="checkbox"/> <i>Physical Activity Cards Lesson Material 3-A</i><input type="checkbox"/> <i>Physical Activity Intensities (Handout 2-B)</i>	For the Facilitator <ul style="list-style-type: none"><input type="checkbox"/> Stopwatch or watch with a second hand Optional: <ul style="list-style-type: none"><input type="checkbox"/> <i>Lesson 3 (PowerPoint)</i><input type="checkbox"/> Computer<input type="checkbox"/> PowerPoint Projector
For the Class <ul style="list-style-type: none"><input type="checkbox"/> None	For Each Participant <ul style="list-style-type: none"><input type="checkbox"/> <i>Activity Chart (Activity Sheet 3-C)</i>

Preparation

Handouts

1. Make copies of the following handouts:
 - **Physical Activity Intensities (Handout 3-B)**, one copy per group.
 - **Activity Chart (Activity Sheet 3-C)**, one copy per participant.

Other Materials

2. Print and cut out copies of the **Physical Activity Cards (Handout 3-A)**, one set per group.

Classroom Set-up

3. Organize the class into small groups of 2 to 4 participants.

Facilitator Tip: These groups can also be used in future lessons.

4. Provide each group with a sheet of flip chart paper and markers, pens, or pencils to answer opening questions/prompts.

Optional

5. Before participants arrive, connect laptop to projector. Load **Focus on Food Lesson 3** (PowerPoint).

Opening Questions/Prompts

Lesson 3: Get Your Move On

Lesson 3: Get Your Move On Slide 1

Slide 1



Opening Questions

Lesson 3: Get Your Move On Slide 2

Slide 2

Explain what you know
about exercise.

Lesson 3: Get Your Move On Slide 2

Slide 3

Explain why you think
exercise might be
important.

Lesson 3: Get Your Move On Slide 4

Slide 4

Small Group Discussion

1. **Say:** Let's get started with Lesson 3 – Get Your Move On! (**Slide 1**) To begin, I'd like everyone to discuss some opening questions within your group. Once you've discussed the prompts within your groups, we will come back together as a class and discuss your thoughts and responses as a whole. (**Slide 2**)

The first prompt I'd like you to discuss within your groups is:

- Explain what you know about exercise. (**Slide 3**)
Facilitator Tip: Explain to participants that they may write their answers independently or assign one person in their group to write down everyone's thoughts. It may be helpful to explain to the class that they will learn more about these topics throughout the lesson.

2. **Do:** Allow 2 to 3 minutes for groups to discuss the prompt. Repeat with the remaining two prompts:
 - Explain why you think exercise might be important. (**Slide 4**)

Class Discussion

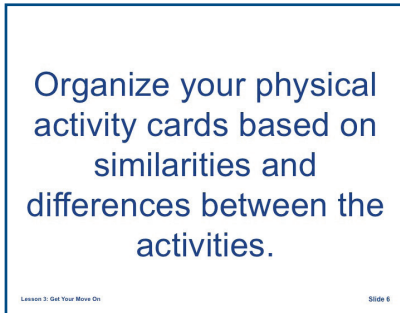
3. **Say:** As a class, let's discuss what you talked about in your groups. What were some of your thoughts on the first prompt, "Explain what you know about exercise."
4. **Do:** Allow about a minute for participants to share their thoughts on this topic with the class. Repeat with the remaining prompt:
 - Explain why you think exercise might be important. (**Slide 4**)

Facilitator Tip: This sharing phase is a great opportunity to begin to build rapport with participants. Engage participants at this phase with phrases such as: "Tell me more about that"; "What do you mean by..."; "Did anyone else write this?" At this stage, it is important that you do not correct misconceptions. Instead, make note of them, and if they are not corrected organically through the lesson, address them briefly at the end of the lesson.

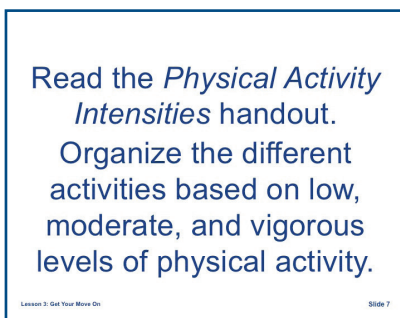
Procedure (Experiencing)



Slide 5



Slide 6



Slide 7

Small Group Work

5. **Say:** Now that we've completed our opening discussion, we'll start on the activity for this lesson. **(Slide 5)** This activity involves physical activity. I am going to hand out some cards with descriptions of different physical activities. I'd like you to:

- Read the ***Physical Activity Cards (Handout 3-A)***
- Organize the different activities based on similarities and differences between the activities. **(Slide 6)**
- Record how you organized your cards on the flip chart paper.

6. **Do:** Provide each group with a copy of the ***Physical Activity Cards (Handout 3-A)***.

Facilitator Tip: While participants are organizing the cards, visit with each group and ask them to describe how they are organizing them.

Facilitator Tip: If a group finishes organizing their Physical Activity Cards before the other groups have finished, encourage them to try other ways of organizing the cards.

7. **Say:** Next, I'm going to distribute a handout. I'd like you to:

- Read the ***Physical Activity Intensities*** handout.
- Organize the different activities based on low, moderate, and vigorous levels of physical activity. **(Slide 7)**
- Record your organization on your flip chart paper.

8. **Do:** Provide each group with a copy of the ***Physical Activity Intensities (Handout 3-B)***.

Facilitator Tip: While participants are organizing the cards, visit with each group and ask them to describe how they are deciding which activities are low, moderate, and vigorous.

Class Discussion

9. **Say:** Now I'd like each group to share how they initially organized the different activities, and then how they categorized the various activities into low, moderate, or vigorous level. **(Slide 8)**

Facilitator Tip: *If breathing rate or heart rate is mentioned during the discussion, place emphasis on these responses by asking participant to describe what they mean by these terms (or similar terms). For example, if a participant says "We decided that running was vigorous because you're breathing hard" follow up with "Why do you think you breathe harder when running compared to walking?" Through follow-up questions, try to guide participants to verbalize:*

- *The lungs take in oxygen and expel carbon dioxide, and more vigorous activity means more carbon dioxide is produced, and more oxygen is needed.*
- *The heart pumps faster to move more oxygen-rich blood from the lungs to the muscles, and to move carbon dioxide from muscles to the lungs where it can be breathed out.*



Slide 8



Slide 9



Slide 10

Resting Heart and Breathing Rate

10. **Say:** Now we're going to engage in a little physical activity. Before we start, I'm going to distribute a handout. On this handout, record how you currently feel while resting, using descriptive words. **(Slide 9)**
11. **Do:** Provide each participant with a copy of the **Activity Chart handout (Activity Sheet 3-C)**. Allow one minute for participants to record how they currently feel.
12. **Say:** Next, I need everyone to take his or her resting pulse on your wrist or jawline.
- I'll measure 6 seconds.
 - Count the number of pulses in 6 seconds
 - Multiply by 10 to find your resting heart rate in 1 minute. **(Slide 10)**

Count the number of breaths (one inhale and one exhale equals one breath) in 6 seconds.
Multiply by 10 to find your resting breathing rate.
Record this on your handout.

Slide 11

13. **Do:** Using a watch or stopwatch, time 6 seconds and announce when time is up.
14. **Say:** Next, we'll measure our resting breathing rate. One breath equals one inhale and one exhale.
- I'll measure 6 seconds.
 - Count the number of breaths in 6 seconds
 - Multiply by 10 to find your resting breathing rate in 1 minute. **(Slide 11)**
15. **Do:** Using a watch or stopwatch, time 6 seconds and announce when time is up.

Facilitator Tip: For the next part of the activity, participants will engage in physical activity. There are few things you can do to help them feel more comfortable. Dim lights in the room and join them in the physical activity (walking, jumping jacks). If a participant is unable to do the activity, ask them to partner with a group member who performed the activity to share their responses regarding how they felt during the physical activity and their recorded heart rate and breathing rate.

Walk in place for 30 seconds.

Slide 12

Moderate Exercise

16. **Say:** Now everyone who can comfortably do so should stand up and walk in place (or around the room if space allows) for 30 seconds. **(Slide 12)**
17. **Do:** Repeat the steps for measuring pulse and breathing rate. Using a watch or stopwatch, time 30 seconds and announce when time is up. Have participants record these numbers on their handout. **(Slides 13)**
18. **Say:** On this handout, record how you currently feel after moderate activity, using descriptive words. **(Slide 13)**

Take your pulse and breathing rate.

Record on your handout how you feel.

Slide 13

Vigorous Exercise

19. **Say:** Now everyone who can comfortably do so should stand up and do jumping jacks, "standing jacks", or "walking-in-place jacks" for 30 seconds. **(Slide 14)**
20. **Do:** Repeat the steps for measuring pulse and breathing rate. Using a watch or stopwatch, time 30 seconds and

Do jumping jacks for 30 seconds.

Slide 14



Slide 15

announce when time is up. Have participants record these numbers on their handout. **(Slides 17-18)**

21. **Say:** On the handout, record how you currently feel after vigorous activity, using descriptive words. **(Slide 19)**

Small Group Discussion

22. **Say:** Within your small groups, compare how you felt while resting, walking in place, and doing jumping jacks. **(Slide 20)**

Activity Wrap-Up (Sharing, Processing, and Generalizing)

23. **Say:** As a class, let's discuss your observations about resting, moderate, and vigorous levels of activity. **(Slide 21)**

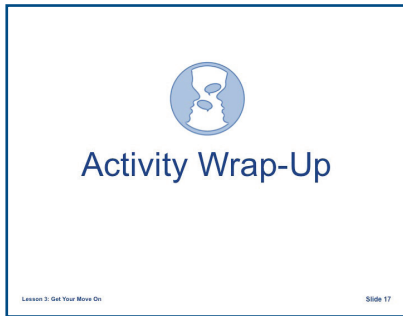
24. **Do:** Follow the group's line of thinking, and if necessary, ask more targeted questions.

- Explain what the activities have in common. Explain how the activities are different.
- Explain what you noticed about how your body responded to walking in place versus doing jumping jacks.
- Explain what you noticed about your heart rate and breathing rate during the different activities.
- Share some of the benefits of physical activity you've heard about.

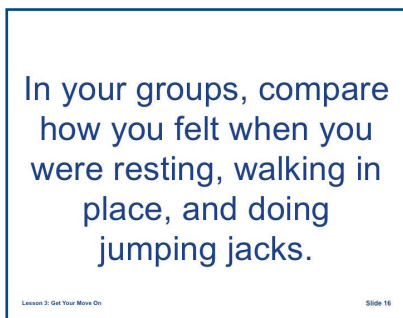
If not mentioned earlier in the lesson, try to guide participants to verbalize:

- The lungs inhale oxygen and exhale carbon dioxide. More vigorous activity increases the need for oxygen while muscles produce more carbon dioxide.
- The heart pumps faster to move more oxygen-rich blood from the lungs to the muscles, and to move carbon dioxide from muscles to the lungs where it can be exhaled.

Facilitator Tip: If there are any misconceptions remaining in this phase of the lesson, you should address these now.



Slide 17



Slide 16

Concept and Term Discovery/Introduction

Over the course of the activity, participants should be able to identify the following concepts:

- Breathing rate and heart rate will differ depending upon the level of intensity of the activity they are doing.
- Physical activity has many benefits, including heart health, bone strength, sleep and mood improvement, muscle strength, flexibility, and reduced risk of chronic disease.
- Any type and length of time being physically active is better than none, and they can exercise any time that works for them.

The following key vocabulary terms should be discovered by participants or introduced to them: breathing rate, carbon dioxide, exhalation, heart rate, inhalation, intensity, oxygen, and pulse.

3.2: Expanding Knowledge

Overview

In this mini-lecture, participants will learn more about physical activity, and how the heart and lungs work together to provide oxygen to the body. They will also learn about maximum and target heart rate and the current recommendations for physical activity for adults and children.

Getting Ready

Time Required

10 minutes

Materials Needed

(Materials provided in the curriculum)

For the Facilitator <ul style="list-style-type: none"><input type="checkbox"/> Lesson 3 (PowerPoint)<input type="checkbox"/> Computer<input type="checkbox"/> PowerPoint Projector	For Each Group of 2-4 Participants <ul style="list-style-type: none"><input type="checkbox"/> None
For the Class <ul style="list-style-type: none"><input type="checkbox"/> None	For Each Participant <ul style="list-style-type: none"><input type="checkbox"/> None

Preparation

Projector Set-up

1. Connect laptop to projector. Load **Focus on Food Lesson 3** (PowerPoint).
2. Queue the PowerPoint presentation to Slide 18.

Procedure

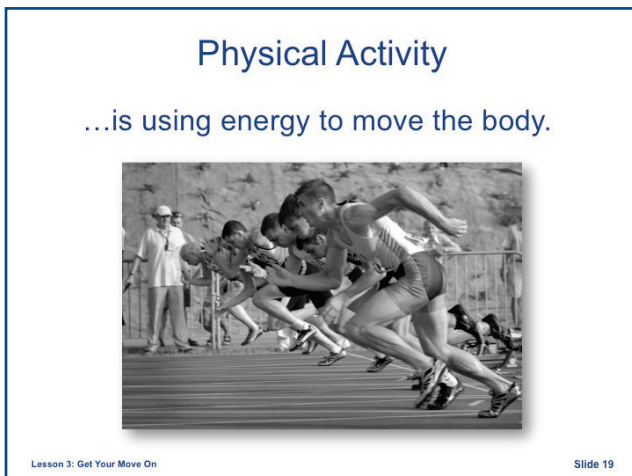
1. **Do:** Go through the Expanding Knowledge presentation slide by slide. The following script is available for use if you so choose.



Slide 18

Slide 18

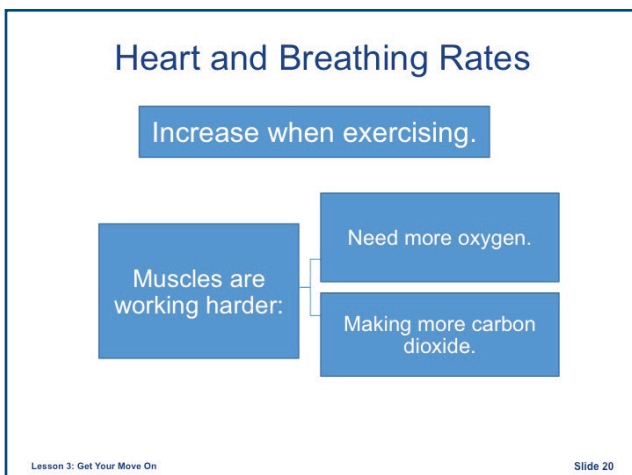
Let's review some of the concepts we learned during Lesson 3, Get Your Move On.



Slide 19

Slide 19

Physical activity is anything that involves using energy to move the body. Sometimes we call it exercise or “working out” but it doesn't matter what you call it, as long as you're moving.



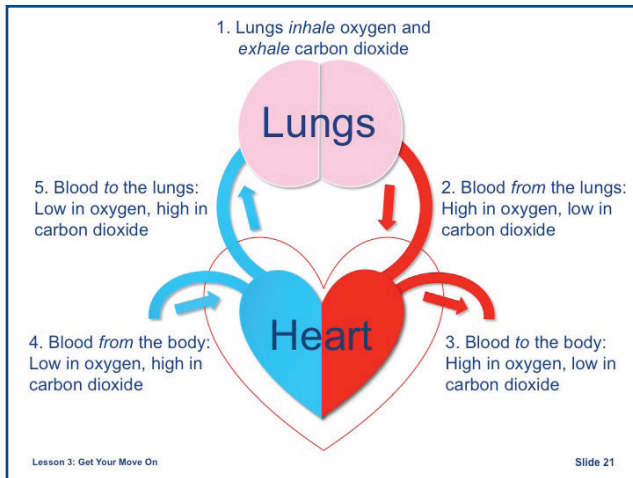
Slide 20

Slide 20

Heart rate and breathing rate increase when exercising.

More vigorous activity increases the need for oxygen while muscles produce more carbon dioxide.

The lungs inhale oxygen and exhale carbon dioxide. The heart pumps faster to move more oxygen-rich blood from the lungs to the muscles, and to move carbon dioxide from muscles to the lungs where it can be exhaled.



Slide 21

Slide 21

This is the cycle of how our heart and lungs work together to make sure we have enough oxygen and that we are getting rid of carbon dioxide.

Let's start the cycle at the lungs. Step 1, we inhale oxygen into our lungs. This oxygen is picked up by red blood cells, oxygenating the blood.

Step 2. The oxygen-rich blood returns to the heart.

Step 3. The heart then pumps blood to the body that is high in oxygen, and low in carbon dioxide. As it is pumped through the body, the blood drops off oxygen and picks up carbon dioxide.

Step 4. The result is blood that is low in oxygen and high in carbon dioxide. The blood works its way back to the heart.

Step 5. The heart then pumps the deoxygenated blood to the lungs.

The lungs exhale the carbon dioxide, and inhale oxygen, and the process starts over.

Heart Rate

To calculate maximum: subtract your age from 220.

Example: 50 years old
 $220 - 50 = 170$ beats per minute.

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Slide 22

Slide 22


Hearts can only beat so fast, and the upper limit of what your heart can handle during physical activity is your maximum heart rate.

There's a simple way to figure out what that would be.

Subtract your age from 220. For example, a 50-year-old would have a maximum heart rate of 220 minus 50, which works out to 170 beats per minute.

Heart Rate

Target: 50 - 70% of maximum.



Example: 50 years old
50% to 70% of 170 = 85 to 119 beats per minute.

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Slide 23

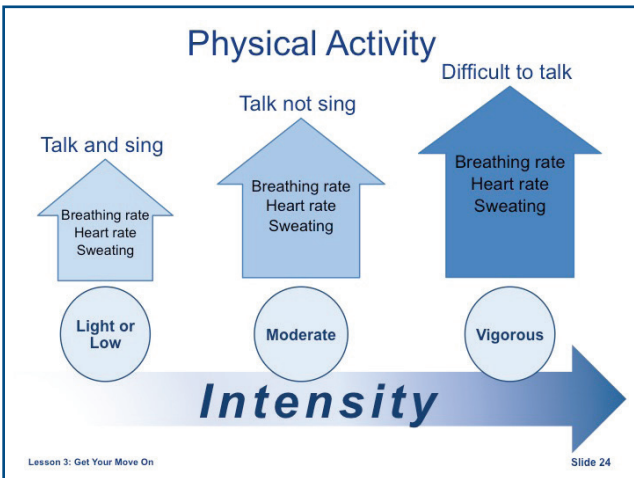
Slide 23

However, you don't want to aim for your maximum heart rate. You want to aim for your target heart rate, which is the sweet spot where your heart is working harder, but not too hard.

It's recommended to aim for a target heart rate of 50 to 70% of your maximum heart rate.

Going back to our previous example, a 50-year-old's maximum heart rate is 170. 50 to 70% of 170 is 85 to 119 beats per minute.

If you're not fit or you're just beginning an exercise program, aim for the lower end of your target zone (50%). Then, gradually build up the intensity. If you're healthy and want a vigorous intensity, opt for the higher end of the zone.



Slide 24

Slide 24

To recap some of what we investigated in the activity earlier, light or low activity results in a small increase and breathing and heart rate. One way to know is if you are able to sing during the activity. What are some examples you can think of?

[Pause to allow responses from class.]

In moderate activity, you can talk but not sing, and heart rate and breathing rate increase even more. What are some examples of moderate activity?

[Pause to allow responses from class.]

Vigorous activity involves heavy breathing and a fast heart rate. It becomes more difficult to talk when doing the activity. What are some examples of vigorous activity?

Physical Activity

Weight-Bearing:
Working against gravity to move a weight



Non Weight-Bearing:
Not working against gravity to move a weight

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Slide 25

Slide 25

Who here has heard of weight-bearing physical activity before? Can anyone explain why it's important?

[Pause to allow responses from class.]

Weight-bearing exercise is important because it helps build and maintain strong bones.

Weight-bearing physical activity is any activity that involves working against gravity to move a weight. It doesn't mean you need to lift heavy weights and barbells, it can be your own weight.

For example, walking, running, dancing, those are all weight-bearing because you are bearing your own weight and working against gravity.

Non weight-bearing means that your weight is being at least partially supported. In swimming, the water helps bear some of your weight, while in biking, the bike does.

Physical Activity



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Slide 26

We've learned that weight-bearing physical activity helps build and maintain strong bones as well as increase muscle strength. It can also result in improved sleep.

While exercise alone without calorie reduction doesn't tend to result in weight loss, it can help with keeping your weight stable.

Physical activity also reduces risk of chronic diseases, such as heart disease or type 2 diabetes.

What are some other benefits of physical activity you can think of?

[Pause to allow responses from class.]

Physical Activity



Adults

2 ½ hours moderate physical activity
or
1 ¼ hours vigorous activity each week.

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Slide 27

Slide 27

The Dietary Guidelines for Americans has the following recommendation for physical activity:

Adults should have at least 2 hours and 30 minutes of moderate physical activity, or 1 hour and 15 minutes of vigorous activity per week. Why do you think that you would need more moderate activity compared to vigorous?

[Pause to allow responses from class.]

Your body is working harder with vigorous activity, so you can get the same benefits in a shorter amount of time. This doesn't mean you have to do all of one or the other.

You can mix it up and do whatever proportion makes sense for you. 2 hours and 30 minutes of moderate activity works out to about 30 minutes, 5 days week. 1 hour and 15 minutes of vigorous could mean 15 minutes of vigorous activity 5 days a week.

Or you could do 30 minutes of moderate three days, and 15 minutes of vigorous two days. It should be what works for your life.

Physical Activity

Children

1 hour each day
&
vigorous activity 3 days per week.



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Slide 28

Slide 28

Children are recommended to do 60 minutes of physical activity each day, with vigorous activity at least three of those days.

3.3: Goal Setting Activity

Overview

In this activity, participants will use what they've learned to record some steps they could take to increase their physical activity.

Getting Ready

Time Required

5 minutes

Materials Needed

(Materials provided in the curriculum)

For the Facilitator Optional: <input type="checkbox"/> Lesson 3 (PowerPoint) <input type="checkbox"/> Computer <input type="checkbox"/> PowerPoint Projector	For Each Group of 2-4 Participants <input type="checkbox"/> None
For the Class <input type="checkbox"/> None	For Each Participant <input type="checkbox"/> Goal Setting – Get Your Move On (Activity Sheet 3-D) Optional: <input type="checkbox"/> Focus on Food Lesson 3 Newsletter (Handout 3-E)

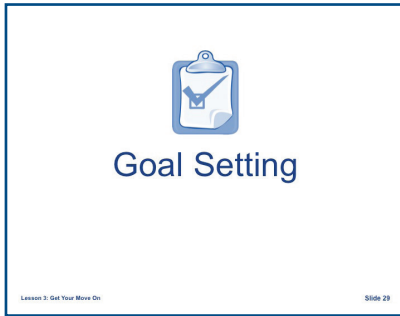
Preparation

Handouts

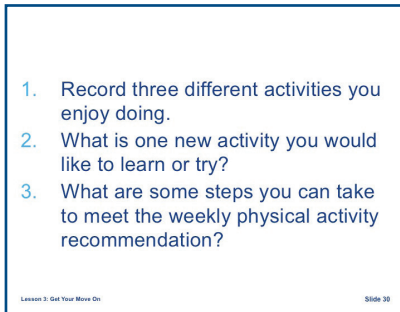
1. Make copies of the following handouts:
 - **Goal Setting – Get Your Move On (Activity Sheet 3-D)**, one for each participant.
 - Optional: **Focus on Food Lesson 3 Newsletter (Handout 3-E)**, one for each participant.

Optional

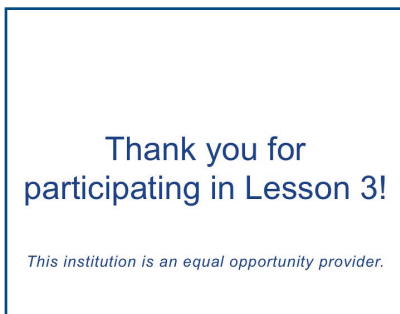
2. Connect laptop to projector. Load Focus on Food Lesson 3 (PowerPoint).
3. Queue the PowerPoint presentation to Slide 29.



Slide 29



Slide 30



Slide 31

Procedure

1. **Say:** Now let's move on to goal setting! **(Slide 29)** We've talked about how important physical activity is to our health. The next step is to set some goals and make a plan. I am going to distribute a goal setting handout that has the following question: **(Slide 30)**

- Record three different activities you enjoy doing.
- What is one new activity you would like to learn or try?
- What are some steps you can take to meet your weekly physical activity recommendation?

Facilitator Tip: Allow participants to refer to the moderate and vigorous activity examples they previously explored for ideas on how to meet their weekly physical activity recommendations.

2. **Do:** Provide a copy of the ***Goal Setting – Get Your Move On (Activity Sheet 3-D)*** to each participant. Allow participants a few minutes to complete the handout.
3. **Say:** Would anyone like to share the goals they set for themselves?

Optional:

4. **Say:** I'm going to distribute one last handout, which is a newsletter with some extra information you might be interested in. Thank you all for participating in Lesson 3! **(Slide 31)**
5. **Do:** Provide a copy of the ***Focus on Food Lesson 3 Newsletter (Handout 3-E)*** to each participant.

Physical Activity Cards

Stretching

Stretching is an activity in which someone extends and lengthens different parts of the body.

- Benefits of stretching include:
- Improved flexibility
- Decreased risk of injury
- Improved athletic performance in certain activities
- Increased blood flow to muscles

Playing Catch

Playing catch is an activity that generally two or more people participate in together. One person throws a ball to another person who catches the ball. The person who caught the ball then throws it back to the first person, or to anyone else playing.

- Benefits of playing catch include:
- Improved hand-eye coordination
- Muscle strengthening

Gardening

Gardening is an activity involving preparing soil, planting, watering, weeding, and harvesting of plants.

Benefits of gardening include:

- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Walking

Walking is an activity in which the body moves at a steady pace, placing one foot in front of the other but never having both feet off the ground at the same time.

Benefits of walking include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Tennis (Doubles)

Doubles tennis is an activity in which two people are on each side of the tennis court, hitting the tennis ball back and forth over the net.

Benefits of playing doubles tennis include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Basketball

Basketball is a team sport that involves running back and forth between defending one basket from being scored on, and offensively trying to score in the basket at the other end of the court.

Benefits of playing basketball include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Swimming

Swimming is an activity that incorporates the use of both the arms and legs to move the body through water.

Benefits of swimming include:

- Increased lung capacity
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Running

Running is an activity in which the body moves quickly, placing one foot in front of the other. Often both feet are off the ground at the same time.

Benefits of running include:

- Improved bone strength
- Improved heart health
- Muscle strengthening
- Reduced risk of chronic disease
- Improved sleep and mood

Physical Activity Intensities

Low-level Physical Activity

Low activity is a slow, almost resting activity level in which the body uses minimal energy to work. The body might have a very small increase in amount of breathing and its pulse; however normal breathing occurs and the body does not usually sweat very much, if at all. A person doing a low-level activity should be able to sing while doing the activity.

Moderate-level Physical Activity

Moderate activity is a medium activity level in which the body is using energy to work. Sweating, increased breathing rate, and increased heart rate are often a result of moderate-level activity. Approximately 4-7 calories are burned each minute while participating in moderate-level activity. A person participating in a moderate-level activity would be able to talk, but may not be able to sing.

Vigorous-level Physical Activity

Vigorous activity is a high activity level in which the body is using a lot of energy to work hard. Immediate results of vigorous-level physical activity may include heavy breathing, fast heart rate, and increased sweating. More than 7 calories are burned each minute while participating in vigorous-level activity. A person doing a vigorous-level activity would have difficulty talking.

Activity Chart

		Level of Intensity		
		Resting	Moderate	Vigorous
Heart Rate				
Breathing Rate				
Describe how you felt during this level of intensity.				

Focus on Food Lesson 3 Newsletter

The optional newsletter on the following pages is designed to help reinforce the concepts learned. If offering this course in a single workshop, you may wish to distribute the lesson newsletters weekly in order to help refresh participants' memory and solidify the concepts.

Get Your Move On

In this issue...

You're So Intense! What Low, Moderate, and Vigorous Activity Really Means Page 2

Getting Active Page 2

Heart and Lungs Working Together Page 3

What's Your Resting Heart Rate? Page 3

Test Your Knowledge With the Physical Activity Crossword Puzzle! Pages 4-5



Be Active, Be Healthy

Choose to make physical activity a part of your daily routine! Many health benefits result from being physically active. These benefits include increased muscle and bone strength, sleeping better, weight maintenance, and reduced risk of chronic diseases such as heart disease and type 2 diabetes. It can help you live a longer, healthier life – and it can be fun!

It is recommended that adults get at least 2 hours and 30 minutes of moderate physical activity per week, or 1 hour and 15 minutes of vigorous physical activity per week. You don't have to do all one or the other – mix it up! But what counts as moderate, and what counts as vigorous intensity?

Turn the page to learn more about physical activity intensity!



Did you know?

Even activities like gardening and housework count as physical activity – as long as you're moving and getting your heart pumping faster!



Getting Active

Physical activity doesn't mean you have to get an expensive gym membership. Think about the kind of physical activity you enjoyed as a kid. Did you like to play tag? Play tag with your kids or grandkids or nieces and nephews. Did you love to ride your bike around your neighborhood? Give it a try now! If you don't have a bike, borrow one from a friend and get pedaling. Or, just take a nice relaxing walk through a park or around the block.



You're so intense!

What low, moderate, and vigorous activity really mean.

Heart rate and breathing rate change depending upon the degree of intensity of the activity. Heart rate may be measured by taking your pulse near your wrist or just under your jawline. Aerobic activities cause you to breathe harder and your heart to beat faster.

Low-level Physical Activity

Low activity is a slow, almost resting activity level in which the body uses minimal energy to work. The body might have a very small increase in amount of breathing and its pulse, however normal breathing occurs and the body does not usually sweat very much, if at all. A person doing a low-level activity should be able to sing while doing the activity.

Moderate-level Physical Activity

Moderate activity is a medium activity level in which the body is using energy to work. Sweating, increased breathing rate, and increased heart rate are often a result of moderate-level activity. Approximately 3.5-7 calories per minute are burned while participating in moderate-level activity. A person participating in a moderate-level activity would be able to talk, but may not be able to sing while doing the activity.

Vigorous-level Physical Activity

Vigorous activity is a high activity level in which the body is using a lot of energy to work hard. Immediate results of vigorous-level physical activity may include heavy breathing, fast heart rate, and increased sweating. More than 7 calories per minute are burned while participating in vigorous-level activity. A person doing a vigorous-level activity would have difficulty talking while doing that activity.

Heart and Lungs Working Together



Physical activity involves using energy to move the body. **Heart rate** and **breathing rate** change depending upon the degree of intensity of the activity. So why does this happen?

Our cells need **oxygen** to function and be active. When we breathe in, or **inhale**, our lungs take in oxygen. This oxygen gets picked up by red blood cells to make oxygenated blood. The heart pumps the **oxygenated blood** through the body so that oxygen can be delivered to the muscles and organs that need it.

Muscles and organs that are working hard make **carbon dioxide**. We don't want too

much of it hanging around, so it gets picked up by blood. The heart keeps right on pumping blood, which delivers the carbon dioxide to our lungs. Our lungs breathe out, or **exhale**, the carbon dioxide to get rid of it.

When our bodies are working hard, our muscles are using more oxygen. They are also making more carbon dioxide that the body needs to get rid of. To keep up with all of this, we need to breathe faster. The lungs **inhale and exhale more often** to bring in more oxygen and get rid of carbon dioxide made by the muscles that are working hard. This

means **breathing rate increases**.

The **heart also needs to pump faster** to carry the oxygenated blood to muscles, and to carry away carbon dioxide back to the lungs, so **heart rate** goes up.

Together, the heart and lungs work to bring oxygen to the muscles, and take away the carbon dioxide that's not needed. And the more practice they get, the better they get at it!

What's your Resting Heart Rate?

Follow these simple steps to find your resting heart rate.



Using two fingers, find your pulse on your wrist or on your neck, just under the jawbone.



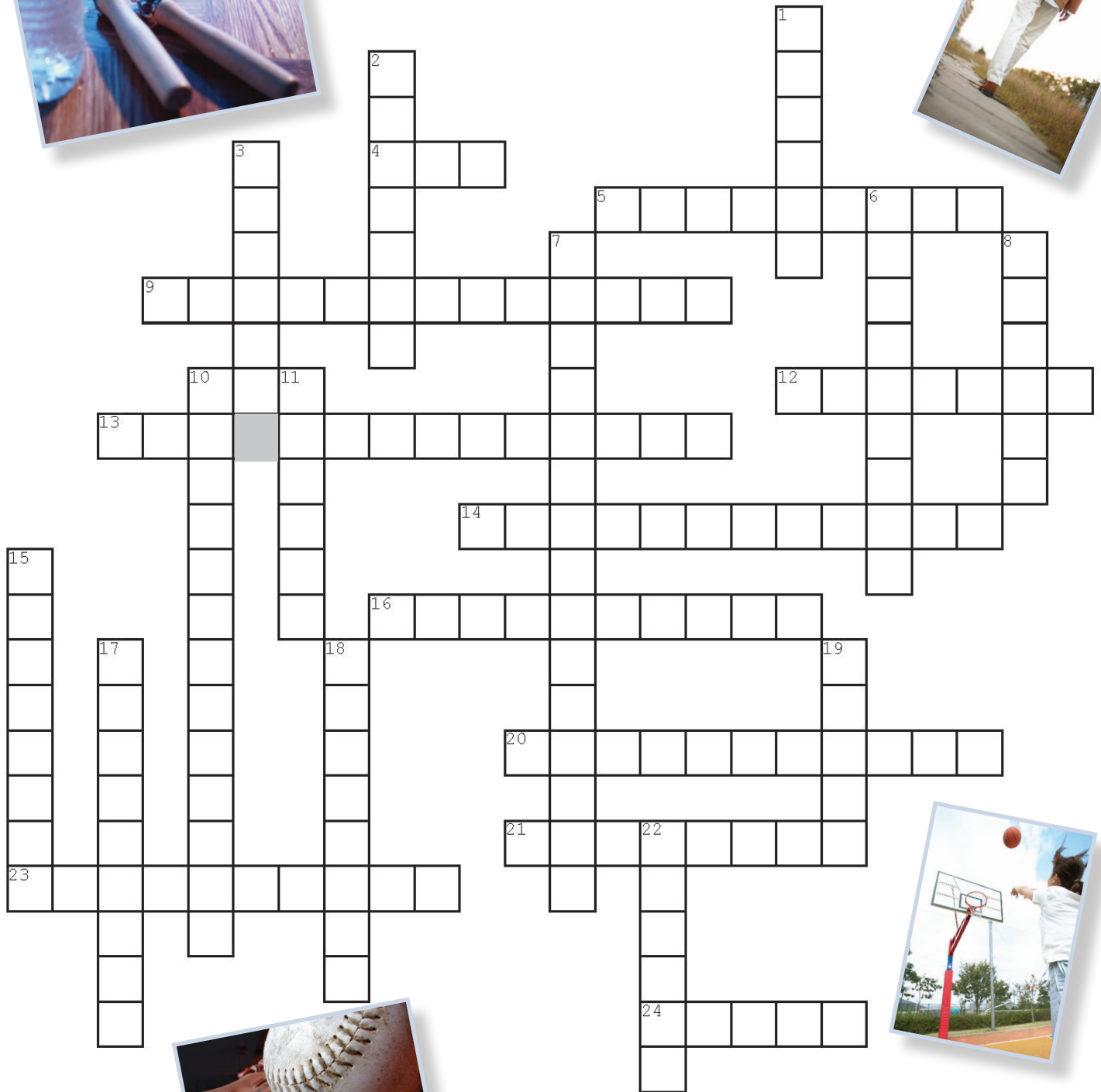
Using a clock or stopwatch, count how many beats you feel for 6 seconds.



Multiply the number you get by ten. Now you have your resting heart rate in beats per minutes!

Test your knowledge with the Physical Activity Crossword Puzzle!

See the next page for clues and a word bank



This crossword was created using the Crossword Maker on TheTeachersCorner.net.

Physical Activity Crossword Clues



Across

4. Slow, almost resting activity level.
5. An activity involving preparing soil, planting, watering, weeding, and harvesting plants.
9. A gas produced by the body.
12. An activity in which the body moves quickly, placing one foot in front of the other. Often both feet are off the ground at the same time.
13. A disease that lasts for a long time.
14. An activity where one person throws a ball to another person, who catches it.
16. A team sport that involves running back and forth between defending one basket, and trying to score in the basket at the other end of the court.
20. The ability to bend and move the body with ease.
21. Activity in which a person is using energy to work, but is still able to hold a conversation.
23. An activity in which someone extends and lengthens different parts of the body.
24. The two organs responsible for breathing.



Down

1. A gas consumed by breathing that is necessary for life.
2. An activity in which the body moves at a steady pace, placing one foot in front of the other but never having both feet off the ground at the same time.
3. The organ responsible for pumping blood through the body.
6. The level at which an activity is conducted, including low, moderate, and vigorous.
7. Blood that has a lot of oxygen.
8. An activity with one person on each side of a court, hitting a ball back and forth over a net using rackets.
10. The number of times a person breathes in one minute.
11. To draw air into the lungs.
15. High activity level that is using a lot of energy, and makes it difficult to hold a conversation.
17. The number of times the heart beats in one minute.
18. An activity that incorporates the use of both the arms and legs to move the body through water.
19. The physical beat felt through the skin that is a result of the heart beating.
22. To breathe air out of the lungs.



Word Bank

Exhale Stretching Tennis Playing Catch Swimming
Moderate Oxygen Intensity Low Heart
Vigorous Lungs Basketball Running Walking Heart Rate
Oxygenated Blood Pulse Carbon Dioxide Chronic Disease
Inhale Flexibility Breathing Rate Gardening

