

## LESSON 7: CREATING A FITNESS PROGRAM DESIGN

### Grade-Level Outcomes

#### Primary Outcome

**Assessment & program planning:** Designs and implements a program of remediation for 2 areas of weakness based on the results of health-related fitness assessment. (S3.M15.7)

#### Embedded Outcomes

**Forehand & backhand:** Demonstrates the mature form of the forehand and backhand strokes with a short-handled implement in net games such as paddle ball, pickleball or short-handled racket tennis. (S1.M14.6)

**Volley:** Forehand- and backhand-volleys with a mature form and control using a short-handled implement. (S1.16.7)

**Forehand & backhand:** Demonstrates the mature form of forehand and backhand strokes with a short- or long-handled implement with power and accuracy in net games such as pickleball, tennis, badminton or paddle ball. (S1.M14.8)

**Fitness knowledge:** Adjusts physical activity based on quantity of exercise needed for a minimal health standard and/or optimal functioning based on current fitness level. (S3.M8.7)

### Lesson Objectives

The learner will:

- design a program of remediation for two areas of weakness based on the results of her Fitnessgram report.
- include as part of the program physical activity that results in attaining either a minimum health standard or an optimal functioning level.
- implement the program once it has been designed.

### Equipment and Materials

- Portable tennis nets
- Plastic pickleballs
- Plastic paddles
- Tennis rackets
- Low-compression tennis balls
- Foam tennis balls
- Clipboards
- Pencils
- Student Fitnessgram reports generated from Fitnessgram software
- Completed physical activity logs
- Physical Activity Remediation Plan Template, 1 per student (see handout from Lesson 6)
- Scoring Guide for Your Physical Activity Remediation Plan, 1 per student (see handout from Lesson 6)
- Calories Used for Activities by Weight Categories, 1 per student (see handout from Lesson 1)

### Introduction

Review homework.

*Today, you will continue practicing your backhand and forehand. Again, we will split the class in two. This means that you will spend half of your time today practicing your backhand and forehand, and will spend the other half on designing a physical activity program.*

## Instructional Task: Small-Sided Games Practice

### ■ PRACTICE TASK

Students participate in a pickleball station.

#### Station 1. Sharpshooters

Place poly spots throughout the court.

Students use the forehand and backhand to place pickleballs in specified points on the court.

#### Extension

Students return a shot from a peer and try to hit the target.

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**EMBEDDED OUTCOME: S1.M14.6.** Make sure students are using mature forehand and backhand shots while striking for accuracy.

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#### Station 2. Modified game

Students rally back and forth scoring points.

#### Extensions

- Students start with the serve.
- Students play by all rules.

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**EMBEDDED OUTCOME: S1.M14.8.** Make sure students are not sacrificing striking pattern during game play.

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#### Station 3: Rally for points

Students rally with a partner to see how many hits they can make in a row.

#### Extension

Students can perform the same task but volley for points.

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**EMBEDDED OUTCOME: S1.M16.7.** Make sure students are using proper technique when performing volleys with a partner.

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#### Student Choices/Differentiation

- Students can play pickleball or tennis (with low-compression ball).
- Students can choose a station.
- Students can rotate stations if they would like or stay at a particular station longer if more practice is needed.

#### What to Look For

- Station 1: Students are using a mature form and improving accuracy.
- Station 2: Students are playing the game with success.
- Station 3: Students are rallying with a high number of contacts.

## Instructional Task: Program Design

### ■ PRACTICE TASK

Distribute the following:

- Fitnessgram reports
- Physical Activity/Fitness Plan Worksheet
- Scoring Guide for Two-Week Physical Activity Plan
- Physical Activity/Fitness Plan Template
- Students should use the Physical Activity Remediation Plan Template and Scoring Guide for Your Physical Activity Remediation Plan to help them design their plans.

## PHYSICAL ACTIVITY REMEDIATION PROGRAM DESIGN

**Directions:** You will design a two-week program of remediation for two areas of weakness based on the results of health-related fitness assessment. In addition, you will adjust physical activity (if needed) based on quantities of exercise needed for a minimal health standard or optimal functioning based on current fitness levels.

1. Examine the Fitnessgram report that you have been provided. List two areas on your Fitnessgram report that need a program of remediation. If your report does not show two areas in need of remediation, list two areas that you would like to improve.

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2. List some physical activities that you could include in this program to address the two areas identified above. Remember to consider activities that are aerobic, muscle strengthening, and bone strengthening.

3. Previously, you determined the amount of physical activity necessary for attaining a minimal health standard of fitness and an optimal functioning standard of fitness. That allowed you to determine zones for each of those levels. List the zones of Calorie (kcal) expenditure needed to attain these two zones.

### ***Minimal Health Standard of Fitness***

Calories (kcal) per day: \_\_\_\_\_ to \_\_\_\_\_ Calories (kcal)

Calories (kcal) per week: \_\_\_\_\_ to \_\_\_\_\_ Calories (kcal)

### ***Optimal Functioning Standard of Fitness***

Calories (kcal) per day: \_\_\_\_\_ to \_\_\_\_\_ Calories (kcal)

Calories (kcal) per week: \_\_\_\_\_ to \_\_\_\_\_ Calories (kcal)

4. Examine your two-week physical activity log. Based on the Calorie (kcal) estimates you listed, did you meet the minimal health standard or optimal health standard? Or, were you unable to determine this because you were not able to easily determine your physical activity expenditure?

5. Place a check next to the statement that is true.

- ☐ I met the minimal health standard by expending \_\_\_\_\_ Calories (kcal) for the week.
- ☐ I met the optimal functioning standard by expending \_\_\_\_\_ Calories (kcal) for the week.
- ☐ I was unable to determine this since I had difficulty estimating my Calorie (kcal) expenditure.

6. If you were unable to estimate your Calorie expenditure, were you able to determine if you met the general rule of thumb of 60 minutes of moderate to vigorous physical activity each day?

- Circle: Yes No

7. Design a program of physical activity that will address your two areas of weakness based on your Fitnessgram report (step 1) and the quantity of physical activity needed. Remember the following guidelines for children and adolescents. You should also use the Calories Used for Activities by Weight Categories table and review the self-assessment of your Physical Activity and Nutrition Log for muscle-strengthening and bone-strengthening activity.

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Guidelines	Definitions	Examples
<b>Aerobic:</b> Most of the recommended minimum 60 minutes or more a day of physical activity should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least three days a week.	<b>Aerobic activities</b> involve rhythmic movements of the large muscles. This type of activity increases cardiorespiratory fitness.	<ul style="list-style-type: none"> <li>• Running</li> <li>• Hopping</li> <li>• Skipping</li> <li>• Jumping rope</li> <li>• Swimming</li> <li>• Dancing</li> <li>• Bicycling</li> </ul>
<b>Muscle strengthening:</b> As part of their recommended 60 minutes or more of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least three days of the week.	<b>Muscle-strengthening activities</b> make muscles do more work than they usually do in daily life. They use the overload principle and make muscles stronger.	<ul style="list-style-type: none"> <li>• Games such as tug-of-war</li> <li>• Push-ups and pull-ups</li> <li>• Resistance exercises with exercise bands, weight machines, handheld weights</li> <li>• Climbing wall</li> <li>• Curl-ups and crunches</li> </ul>
<b>Bone strengthening:</b> As part of their 60 or more minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity on at least three days of the week.	<b>Bone-strengthening activities</b> produce a force on the bones that promotes bone growth and strength. These activities typically involve impacts with the ground.	<ul style="list-style-type: none"> <li>• Hopping, skipping, jumping</li> <li>• Jumping rope</li> <li>• Running</li> <li>• Sports such as gymnastics, basketball, volleyball, tennis</li> </ul>

From U.S. Department of Health and Human Services 2008.

From R.J. Doan, L.C. MacDonald, and S. Chepko, eds., 2017, *Lesson planning for middle school physical education* (Reston, VA: SHAPE America; Champaign, IL: Human Kinetics).

# PHYSICAL ACTIVITY AND FITNESS PROGRAM DESIGN

Have students begin work on their programs to remediate two areas of weakness.

**EMBEDDED OUTCOME: S3.M8.7.** Students' programs should also include enough physical activity to reach a minimum health standard of fitness or an optimal functioning standard of fitness. That means students might need to adjust their plans.

Because physical activity in physical education class is typically out of students' control, let them know what is most likely to occur during the upcoming weeks (e.g., a unit that will involve practicing fundamental basketball skills and small-sided games of basketball).

Rotate with the other group at the midpoint of class. Note: The first group of students need to store their papers safely until the end of class. Portfolios or folders in crates can be used.

## Refinements

- Have students focus their attention on self-selected physical activities that will occur outside of physical education class.
- Remind students that they will need to implement this plan after they have finished it. They will again be keeping track of their physical activity in a log for two weeks.

## Guiding questions for students:

- What technology might help you get an idea of what physical activities burn more Calories than others?
- If you don't have areas in need of remediation, what two areas would you like to improve?

## Student Choices/Differentiation

- Students can choose a quantity of exercise based on their current fitness level (i.e., current fitness levels or quantities of physical activity may not allow for an optimal level of physical activity unless the quantity is gradually increased—the principle of progressive overload).
- Students who are not in need of two areas of remediation may choose areas they are interested in improving.
- Use of technology: Students can list technology that may help them quantify physical activity. For example, Fitbit activity monitors generate reports with total number of Calories (kcal) expended and also provide a graph of how many Calories are expended per minute.

## What to Look For

- Students examine their Fitnessgram reports for two areas of remediation.
- Students determine quantities of needed physical activity for a minimal health standard and optimal functioning.
- Students fill out the remediation plan templates to include everything listed on the scoring guide.

## Formal and Informal Assessments

- Physical Activity/Fitness Plan Worksheet
- Scoring Guide for Two-Week Physical Activity Plan (self-assessment)

## Closure

*Today you began work on your two-week physical activity plan to remediate two areas of need on your Fitnessgram reports.*

- Why is it important to be able to design a program like this?
- How will you know that you have learned this important skill?

## Reflection

- What additional assistance will students need as they complete this assignment for homework over the next couple of days?
- What misunderstandings will need to be addressed?

## Homework

*You will complete your two-week plan for homework. After turning in your two-week plan, you will be expected to follow your two-week plan. That means you should make sure that your plan is realistic.*

## Resources

Corbin, C., Pangrazi, R., & Welk, G. (1994). Towards an understanding of appropriate physical activity levels for youth. *Physical Activity and Fitness Research Digest*, 1(8), 1-8.

U.S. Department of Health and Human Services. (2008). *Physical activity guidelines for Americans*. Washington, DC: Author. Available at [www.health.gov](http://www.health.gov).