

LESSON 8: RUNNING ANALYSIS

Grade-Level Outcomes

Primary Outcomes

Lifetime activities: Demonstrates competency and/or refines activity-specific movements in 2 or more lifetime activities (outdoor pursuits, individual-performance activities, aquatics, net/wall games or target games). (S1.H1.L1)

Fitness activities: Demonstrates competency in 2 or more specialized skills in health-related fitness activities. (S1.H3.L2)

Movement concepts, principles & knowledge: Uses movement concepts and principles (e.g., force, motion, rotation) to analyze and improve performance of self and/or others in a selected skill. (S2.H2.L1)

Movement concepts, principles & knowledge: Applies the terminology associated with exercise and participation in selected individual-performance activities, dance, net/wall games, target games, aquatics and/or outdoor pursuits appropriately. (S2.H1.L1)

Embedded Outcome

Engages in physical activity: Creates a plan, trains for and participates in a community event with a focus on physical activity (e.g., 5K, triathlon, tournament, dance performance, cycling event). (S3.H6.L2)

Lesson Objectives

The learner will:

- use video analysis to critique a peer's running form.
- provide corrective feedback to a peer to improve running form.

Equipment and Materials

- Video on running efficiency
- Athletic attire
- Video equipment, including phones and tablets
- Running form handout
- Quizzes and pencils or pens

Introduction

This class and the next will focus on the final leg of our triathlon: running. We will work on a video analysis and then complete an interval workout that you can incorporate into your training. We'll finish with a quiz on the phases of training.

Instructional Task: Running Gait Observations and Recording

■ PRACTICE TASK

Watch a video on running gait and form.

Distribute the running form handout with cues, and review relevant movement concepts.

Guiding questions for students:

- What important movement concepts did you observe during the video?
- How do efficient runners differ in their gait from inefficient runners?
- How do the mechanics of running change as you run faster? Why?

Extension

Working in pairs, students record each other running. Have them download an app or use slow-motion recording on their devices.

Students take video from three angles: side, front, back.

Student Choices/Differentiation

Students may run on a track or a treadmill.

What to Look For

- Students are able to detect and describe differences in good and poor running form.
- Students are able to use the video app effectively.

Instructional Task: Running Gait Analysis

■ PRACTICE TASK

Working in pairs, students view their videos and give corrective and instructional feedback. Students must apply at least one movement concept in their critiques.

Extension

Students practice running while incorporating the feedback. Partners record again and allow them to compare the two performances.

Refinements

- Reposition students to ensure a clear view of the skill for at least three strides, if necessary.
- If feedback is vague or general, direct students to a cue sheet to help them provide specific corrective feedback.

Student Choices/Differentiation

Students may use a checklist or a rubric to score the running performance.

What to Look For

- Students are able to demonstrate the proper technique to their partners.
- Students are using the handouts and resources to give feedback.
- Students can apply the key elements of running to feedback on their peers' video performance.
- Students can apply one or more movement concepts in their analysis and feedback to their partners.

Instructional Task: Interval Running Set

■ PRACTICE TASK

Have students perform a short interval running set with the focus on form while incorporating speed and interval work.

EMBEDDED OUTCOME: S3.H6.L2. This task allows students to make progress on their training while focusing on their form.

Student Choices/Differentiation

Students can run 4-6 × 100 yards or meters, 3-5 × 200 yards or meters, or 2-4 × 400 yards or meters.

What to Look For

- Students are maintaining form when they focus on speed.
- Students selected an appropriate interval set for their fitness levels.
- Students are applying the feedback they received while doing the workout.

Instructional Task: Quiz

■ PRACTICE TASK

Administer a short quiz on the phases of training.

Student Choices/Differentiation

Allow extra time for those who need it.

What to Look For

- Students can identify the phases correctly.
- Students can apply them appropriately in examples.

Formal and Informal Assessments

- Quiz on phases of training
- Peer assessment of running gait
- Gait analysis worksheets

Closure

- As you worked with your partners today, you should have received some valuable feedback. Video analysis of our physical skills can provide us with a clear picture of what we need to do to improve.
- Now, apply that feedback to your training sessions.

Reflection

- How well were students able to apply concepts and proper mechanics to their own videos?
- Were they able to improve their running form after feedback?
- Were students providing feedback in a constructive way, or do they need more guidance on this?

Homework

- Continue working on your research abstracts. They are due in two classes.
- Continue to do your workouts and journal your training sessions.

Resources

Ubersense app
 Coach's Eye app
 Dartfish Express app
 Eat. Run. Rehabilitate: www.eatrunrehabilitate.com
 The Run S.M.A.R.T. Project: www.runsmartproject.com
 Internet keyword search: "running form," "running gait"