**Fitness Pentathlon Standards & Outcomes Alignment: Integration Overview**

**Math:** Grade 4 Operations & Algebraic Thinking

[**CCSS.MATH.CONTENT.4.OA.A.3**](http://www.corestandards.org/Math/Content/4/OA/A/3/)

* Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations.

*Explanation:* Students collect and record heart rate data and then use subtraction to calculate a 1-lap recovery rate. This word problem does not specifically identify subtraction as the mathematical function required. Students must build upon the steps for the activity and determine the function that is needed.

**English Language Arts:** Grade 4 Reading Informational Texts

[**CCSS.ELA-LITERACY.RI.4.3**](http://www.corestandards.org/ELA-Literacy/RI/4/3/)

* Explain procedures, ideas, or concepts in a technical text, including what happened and why, based on specific information in the text.

*Explanation:* The use of the Fitness Pentathlon worksheet with a partner requires students to be able to understand, communicate, and then follow procedures from a grade level appropriate technical text. Comprehension can be extrapolated after students create and complete a customized Fitness Pentathlon in which they’re asked to create a routine that will result in a greater total increase in heart rate.

[**CCSS.ELA-LITERACY.RI.4.4**](http://www.corestandards.org/ELA-Literacy/RI/4/4/)

* Determine the meaning of domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

*Explanation:* The following is a list of the domain-specific vocabulary relevant to this activity.

|  |  |
| --- | --- |
| * Pentathlon
* Fitness
* Heart Rate
* Beats Per Minute (BPM)
 | * Exercises (Jumping Jacks, Push-ups, Invisible Jump Rope, Squats, Lap)
* Cool-down
* Recovery Rate
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**Physical Education:** Fitness Knowledge (Grades 3-5)

**S3.E4.3; S3.E4.4; S3.E4.5**

* Grade 3: Recognizes the importance of warm-up & cool-down relative to vigorous physical activity.
* Grade 4: Demonstrates warm-up & cool-down relative to the cardiorespiratory fitness assessment.
* Grade 5: Identifies the need for warm-up & cool-down relative to various activities.

*Explanation:* There are several reasons that students need to know the importance of warm-ups and cool-downs.

* Teachers can choose to use this activity at the start of class as a warm-up, discussing the need to increase blood flow to the muscles while optimizing flexibility and efficiency. A good warm-up prepares students to do their best.
* Completing this activity at the end of class, with an extended cool-down lap demonstrates how the body reacts to a gradual slow-down, helping to slowly and safely decrease heart rate and body temperature. Stopping too fast can make students feel sick and even pass out.