

**Assessment of
Argumentative Writing in
Life Science: Version A**

Name: _____
ID #: _____
Teacher: _____ Period: _____

Introduction: The cardiovascular (circulatory) system performs vital functions for human survival. It delivers materials such as oxygen from your lungs. It also removes waste, regulates body temperature and helps the body fight off disease. Cardiovascular exercise has many benefits such as stronger heart muscles, improved blood flow, decreased blood cholesterol levels, and the release of endorphins, which causes us to become healthier and happier.

Examine the following data table. It provides information about six different seventh graders.

Student	Mass (lb)	Height (ft)	Heart Rate Recovery Time (s)	Diet	Athlete/ Non-Athlete	Cardiovascular Fitness Level
A	110	5'3"	55	Moderate Calorie	Athlete	Medium
B	92	5'1"	118	Low Calorie	Non-Athlete	Low
C	97	5'5"	121	High Calorie	Non-Athlete	Low
D	102	4'10"	47	High Calorie	Athlete	High
E	112	5'2"	70	Low Calorie	Athlete	Medium
F	125	5'5"	41	Moderate Calorie	Athlete	High

A local doctor thinks that a child's diet is what determines his/her cardiovascular fitness level. This is his/her argument:

The calorie content of a child's diet is the most important factor in determining cardiovascular fitness. Three of the four children in this group that had a high to medium cardiovascular fitness level also had a high to moderate calorie diet. Therefore, a high to moderate calorie diet leads to a greater level of cardiovascular fitness.

Directions: Examine the data table above and think about what you know about the factors influencing cardiovascular fitness. Then, write an essay that makes the claim that **students who are athletes have a greater cardiovascular fitness** and **tell why the local doctor's claim is inaccurate**. Your argument must include the following components:

- A critique of the doctor's argument, including evidence and/or other reasons that demonstrate why the claim is inaccurate;
- Your clearly stated claim, including adequate evidence and a justification of the evidence you chose.

Your writing must also meet the following criteria for high-quality writing:

- Present your ideas in a clear and logical order, including an introduction, body, and conclusion;
- Use a variety of words and well-constructed sentences to create tone and voice; and,
- Use proper capitalization, punctuation, sentence formation, and spelling.

You will have one class period (but no more than 60 minutes if your class is longer) to plan and write your essay.

Step 1: Pre-write.

Plan for what you will include in your essay and how you will organize the content of your essay in the space below. You can use an outline, a concept map, or a graphic organizer such as a Venn diagram.

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A local doctor thinks that a child's mass is what determines his/her cardiovascular fitness level. This is his/her argument:

The mass of a child is the most important factor in determining cardiovascular fitness. Two of the four lightest children in this group had a medium to high fitness level. Therefore, the lighter students have a greater cardiovascular fitness.

Directions: Examine the data table above and think about what you know about the factors influencing cardiovascular fitness. Then, write an essay that makes a claim that **those students with lower heart rate recovery time have greater cardiovascular fitness** and **tell why the local doctor's claim is inaccurate**. Your argument must include the following components:

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