Cadet Name: _____

Date: _____

1. (ACTC5SSL2:Q1) What pattern could be observed about the boiling points?

***Sample Passage 2*** *(Answers are on page 122)*

Heat changes the properties of water. If we add enough heat to water in its solid form (ice), it will change its state of matter to a liquid. We call this melting. If more heat is added, the liquid will change to gas (water vapor). When enough water vapor forms so that the pressure of the vapor is equal to the pressure of the atmosphere above the water, the vapor can then push the air above the container away and allow vapor bubbles to be released. We call this boiling.

***Test 1***
At an altitude of 1000 feet, a beaker was filled about half full with distilled water. The beaker of water was then heated until the distilled water began to boil. A thermometer was suspended in the water to measure the temperature. The temperature observed was 210 °F.

***Test 2***
The experiment was repeated at an altitude of 800 feet, and the temperature was observed to be 212 °F.

***Test 3***
The experiment was repeated at an altitude of 4000 feet, and the observed temperature was 204 °F.

A) As elevation increases, boiling point decreases.
B) As elevation decreases, boiling point increases.
C) As elevation increases, the boiling point increases.
D) As elevation decreases, the boiling point decreases.

2. (ACTC5SSL2:Q2) What should be the boiling point if the elevation is 7000 feet?

***Sample Passage 2*** *(Answers are on page 122)*

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A) 214 °F
B) 210 °F
C) 205 °F
D) 199 °F

3. (ACTC5SSL2:Q3) Boiling is the change between which two phases?

***Sample Passage 2*** *(Answers are on page 122)*

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A) solid to liquid
B) gas to liquid
C) liquid to gas
D) liquid to solid

[Answer Key]
1. D
2. D
3. C