

1st nine weeks Benchmark: Constructed Response Study Guide

You will be asked to answer one of the following questions for you constructed response portion of your benchmark exam. Please use complete sentences. Pay attention to the word bank and make sure you incorporate these into you answer. Provide plenty of detail to help demonstrate you understanding of the topic.

A: Write a paragraph that explains why a balloon placed in a freezer will deflate overnight. Refer to the words in the WORD BANK as you write you paragraph.

WORD BANK: Contract, Expand, Faster, Gas, Molecule, Shrink, Spread, Temperature, Volume, Pressure.

B: As an ice cube melts on the table top it transforms from a solid block with a defined shape to a puddle with a much greater ability to flow. Thinking at the molecular level, what causes this change to occur? Be sure to discuss the kinetic energy of particles in your answer. Refer to the WORD BANK as you explain your answer.

WORD BANK: water, molecule, faster, expand energy, heat, flow, overcome or breakfree, solid, liquid, melting point, kinetic energy

C: In a chemistry lab, a teacher challenges their students to find the fastest way to dissolve a cube of sugar in a specific amount of water. Using equipment in a standard science lab, describe a procedure and explain why this procedure is effective.

WORD BANK: temperature, surface area, solubility, solute, solvent.

D: From inside to out, describe the components of an atom. What makes one element's atoms differ from another element's atoms?

WORD BANK: atom, proton, neutron, electron, nucleus, subatomic

E: The Kinetic Molecular Theory states that all matter is in a state of constant motion. The motion is different in all three states of matter. Discuss the differences in solids, liquids and gases in terms of molecular motion and attractive forces.

WORD BANK: solid, liquid, gas, vibrates in place, most kinetic energy, flows

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Did not complete	The constructed response used only a few words, and the idea was vague.	The constructed response used some of the words, and more details could have been provided to support the answer.	Writer uses most the vocabulary words, but the words did not clearly explained the terms or question.	The constructed response is well thought out. Writer uses all vocabulary correctly and explains the question and terminology.