

FCAT SCIENCE

PLANNING CARDS Grade 11

BENCHMARK SC.B.1.4.3.

Item Type(s)	MC, GR
Benchmark Clarification	None specified.
Content Limits	<p>Items may use heating or cooling curves to describe properties of matter.</p> <p>Items may address the relationship between:</p> <ul style="list-style-type: none"> • temperature and the average kinetic energy of molecules in an object; • the average kinetic energy of molecules in an object and its state/phase of matter; and • temperature of an object and its state/phase of matter.
Stimulus Attributes	None specified.
Response Attributes	Items will describe units in which the answer is to be given.

Sample GR Item

Elena, a chemist for a large chemical company, is in charge of determining the temperature at which a new chemical, XR45, undergoes phase changes. The graph shown below represents data she collected during her investigation of XR45.

At what temperature, in degrees Celsius ($^{\circ}\text{C}$), does the chemical XR45 condense to liquid form?

Answer

100

COOLING CURVE FOR XR45

