



540

Answer

Clarissa is generating steam by boiling a sample of distilled water that was initially at 90 degrees Celsius (°C). She determines that the total heat needed to raise the temperature of the water from 90°C to 100°C and generate steam is 550 calories per gram. How many of the calories are required to complete the phase change for each gram of water?

Sample GR Item

FCAT SCIENCE

PLANNING CARDS Grade 11

BENCHMARK SC.A.1.4.3.

Item Type(s)	MC, GR
Benchmark Clarification	The student identifies phase changes and the energy transfer involved in those changes.
Content Limits	Items will NOT require the memorization of quantities of energy. Items will NOT address matter in plasma state.
Stimulus Attributes	Items may use phase-change diagrams or graphs.
Response Attributes	Items will describe units in which the answer is to be given. Items may require responses in the form of equations, graphics, or tables.