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During cold periods, many orange growers repeatedly spray their trees with water to prevent the oranges from freezing. If the air is cold enough, the sprayed water freezes around the oranges, leaving the oranges themselves unfrozen.

- a. Identify a measurement tool that orange growers use to measure the average kinetic energy of the air.
- b. Describe what happens to the average molecular kinetic energy of the sprayed water as it cools **before** it freezes.
- c. Describe what happens to the average molecular kinetic energy of the sprayed water as it freezes.
- d. Explain how the phase change of the sprayed water may protect the oranges from freezing.