Moving Molecules in a Solid

Key Concepts:

- In a solid, the atoms are _____.
  The atoms _____, but stay in _____
  because of their _____
- Heating a solid _____ the motion of the atoms.
- An increase in the motion of the atoms, competes with _____
  _____ and cause them to
  move _____.
- Cooling a solid _____ the motion of the atoms.
- A decrease in the motion of the atoms, _____
  between atoms to bring them a little _____.

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Moving Molecules in a Solid, processing

EXPLAIN IT WITH ATOMS AND MOLECULES.

You saw in the animation that atoms in a solid move faster and get slightly further apart when heated. You also saw that they slow down and get slightly closer together when cooled. Use this information to make your own drawing on the molecular level of the metal ball.

Draw a model of the atoms in the metal ball at room-temperature and after it has been heated. Use circles and motion lines to show the speed and spacing of the atoms in the room-temperature ball. Include captions like “atoms faster and further apart” or “atoms slower and closer together” to describe your drawings.