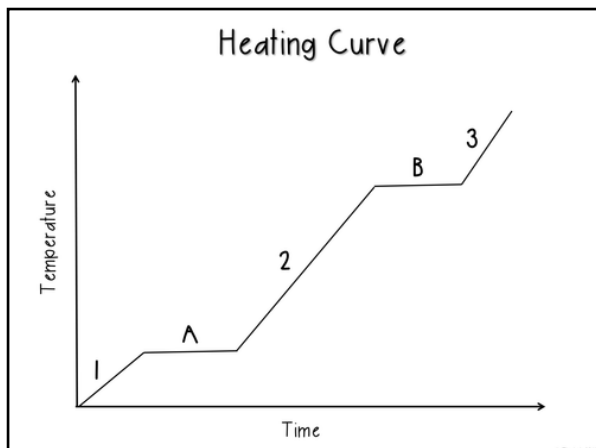
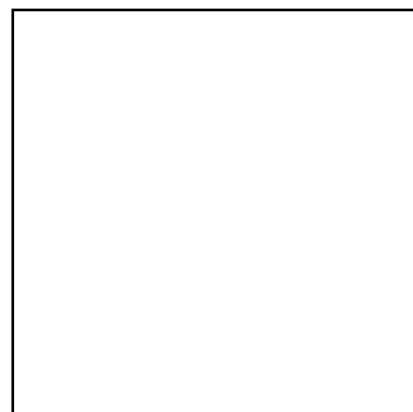
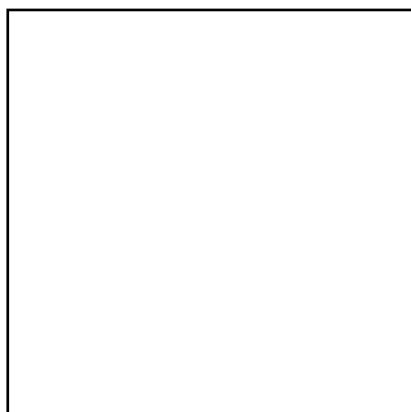
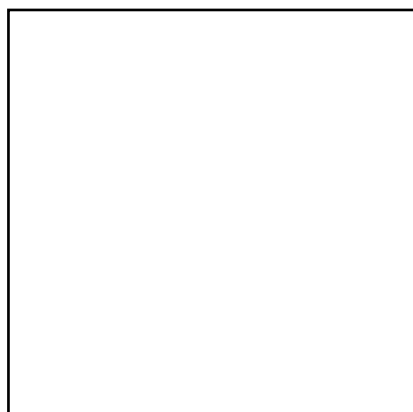


Heating, cooling and temperature changes



1. In the empty box, draw a cooling curve for the same substance as the heating curve shown.
2. Draw particle diagrams to represent the states at 1, 2 and 3 on the heating curve.



3. **Explain** why the temperature of the substance increases in sections 1, 2 and 3.
4. **Explain** why the temperature does not increase during A and B even though the system is still being heated.
5. In terms of heat energy and temperature explain what happens when a mug of hot tea is left on a table for an hour.
6. **Describe** how the internal energy of the substance changes in each stage as it is heated.
7. Oil has a higher melting and boiling point than water. Suggest why.