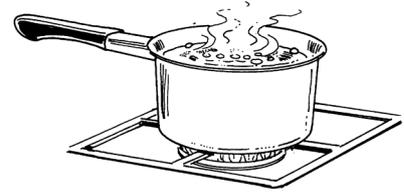


Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

Energy can be transferred from hot to cooler objects by conduction, convection, radiation and evaporation.



1 The drawing shows vegetables being cooked in boiling water. The pan is made of metal and it has a wooden handle.

a How is energy transferred from the part of the pan heated by the flame to the water inside the pan?

\_\_\_\_\_

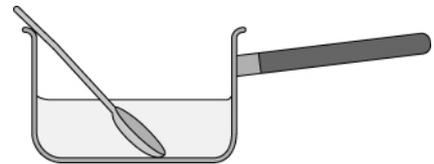
b How does energy spread through the water in the pan? \_\_\_\_\_

2 Explain why the pan is made of metal and the handle is made of wood.

\_\_\_\_\_

\_\_\_\_\_

3 The diagram shows a metal spoon that has just been put into a pan of hot water.



a Put an X on the part of the spoon where the particles will be vibrating the most.

b A few minutes later the whole spoon is hot. Explain how this happens, using ideas about particles.

\_\_\_\_\_

\_\_\_\_\_

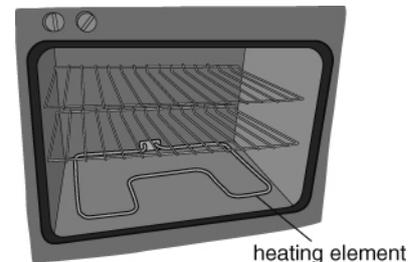
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4 The oven has the heating element at the bottom. Explain why the top of the oven is actually the hottest part.

\_\_\_\_\_

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5 The diagram shows a toaster.

a How does the energy get from the hot elements to the bread?

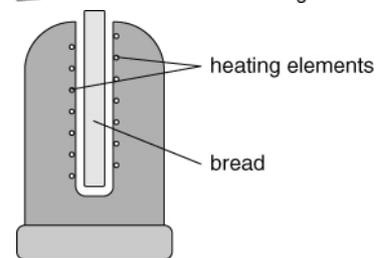
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b Explain why the other ways of energy transfer cannot be heating the bread.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**I can...**

- identify energy transfer processes
- describe how energy is transferred by conduction and convection.