PARTICLE THEORY CIRCUS 1

The instructions for most of these 7 activities are on the Particle Theory 1 instruction cards.

Activity 1 Write your explanation about ice melting and water boiling.

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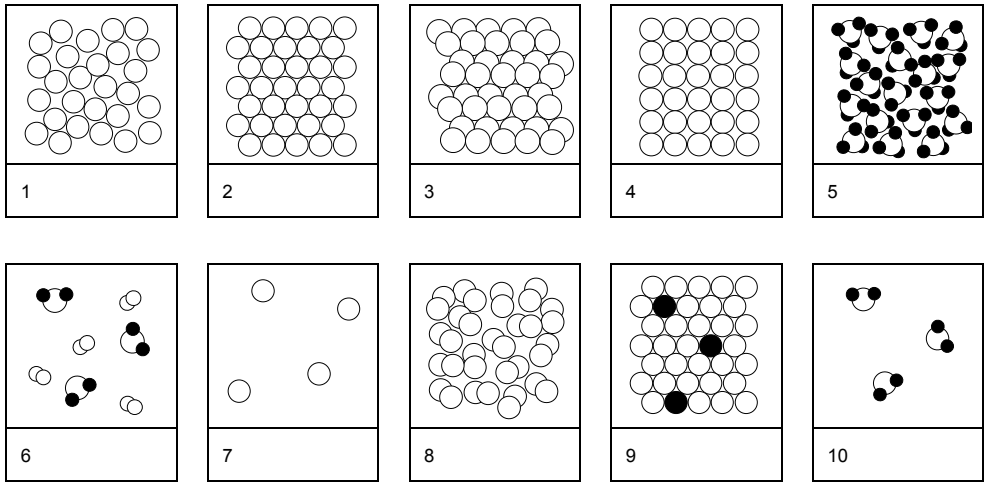
Activity 2 Follow the instructions on the card.



Activity 3 Match the explanations on the cards to the observations below. Once you have matched them up, write the correct explanations in the spaces below. Note that there are more explanations than observations.

a) Gas and liquids take the shape of the container they are put in. ……..

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b) Solids have a fixed shape. ……...

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c) Gases can be squashed easily. ……..

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d) Liquids and solids cannot be squashed easily. ……

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e) If a perfume is sprayed in one corner of the room, it takes a few minutes for the smell to reach the other side of the room.

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Activity 4 Use the melting and boiling point data on the cards to help you sketch how the temperature changes as the following substances are heated or cooled.

cyclohexane (chewing gum remover)

heated from 0ºC to 100ºC

melting point = ……

boiling point = ……..

toluene (a solvent for glues)

heated from 0ºC to 100ºC

melting point = ……

boiling point = ……..

alcohol

cooled from 100ºC to 0ºC

melting point = ……

boiling point = ……..

Activity 5 Use the melting and boiling point data on the cards to work out the state of each substance at the temperatures shown. Write S for solid, L for liquid or G for gas.

substance	melting point (ºC)	boiling point (ºC)	state at –50ºC	state at 20ºC	state at 100ºC
toluene					
hydrogen chloride					
gallium					
magnesium oxide					
methylamine					

Activity 6 Write your explanation about air reaching the heart here.

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Activity 7 Write your explanations about hydraulic brakes here.

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