Monday 22nd February 2021

L.C: Can I understand the changes of state and why they take place?

Give an example of a solid, liquid and gas _____

Draw lines to match the description to the correct of matter.

Solid	Particles are touching and in ordered rows
Liquid	Particles are far apart from each other
Gas	Particles are touching in a random arrangement

Solid	Particles can slide past each other
Liquid	Particles are moving constantly in all directions
Gas	Particles cannot move but can vibrate

What happens to the particles as they are heated?

Solid	Liquid	Gas

_____ temperature - particles have _____ _____ - the substance _____

What happens to the particles as they are cooled?

Solid	Liquid	Gas

_____ temperature - particles have _____ _____ - the substance _____

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What happens to particles during heating?

What happens during heating?

Copy and complete the sentences.

1. When solids are heated strongly. The bonds between some of the particles b_____ which means they can now s_____ o_____ each other. It has become a l_____ .

2. When liquids are heated strongly. Any bonds that are left over between particles now b_____ which means they can now move f_____ a_____ from each other. It has become a g_____.

Mark the gaps above using the answers from the video.

What happens to particles during cooling?

What happens during cooling?

Copy and complete the sentences.

1. When liquids are cooled down. The particles move more s_____ and become strongly b_____ together again. They are now in a f_____ p_____ and have become a s_____.

2. When gases are cooled down the particles move more s_____, they become b_____ together again. The are stuck together but can still s_____ p_____ each other and move so they have become a l_____.

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Mark the gaps above using the answers from the video.

Which state change?

Example	State change	Why?
A puddle turns to water vapour in hot weather.		
Rain turning into snow.		
An ice cream on a hot day.		
Water forming on the bathroom mirror.		

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Mark the table above using the answers from the video

What happens to the particles in chocolate when you hold onto it for too long?

Finally complete the quiz. Send in photographs of your work and the score in your quiz.

Challenge extension sheet below: This is not compulsory.

PLEASE NOTE THAT WHEN A LIQUID BOILS AT 100 DEGREES THE LIQUID EVAPORATES. WHEN IT DROPS BELOW 100 DEGREES IT CONDENSES FROM A GAS BACK INTO A LIQUID.

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ONLY DO THIS IF YOU WANT A CHALLENGE.

Changing State

Name: ..... Date: .....

below 100°C, evaporates, condenses, freezes, heat, cool, melts, 0°C, 100°C

Using the words above complete the sentences below.

If you_____ water to a temperature of_____, it _____ to form steam.

If you _____ steam to a temperature of _____, it _____ to form water.

If you _____ water to a temperature of _____, it _____ to form ice.

If you _____ ice to a temperature of _____, it _____ to form water.

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