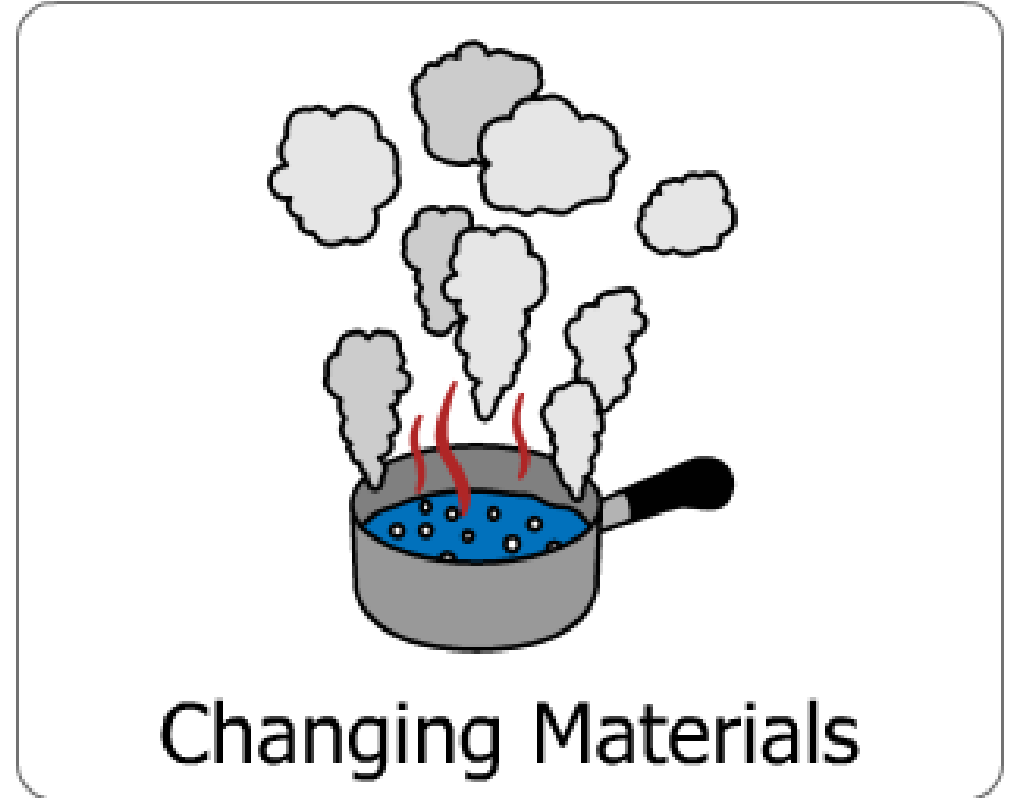
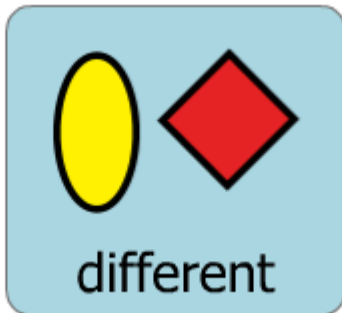
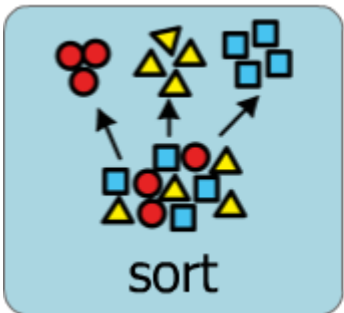
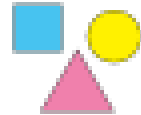
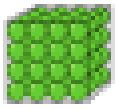


# Key Stage 3 Science

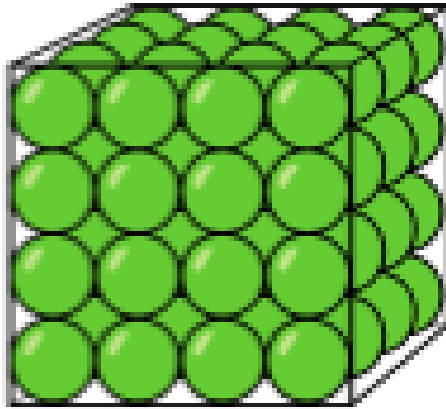
# Changing Materials

Learning objective:





Solids keep their shape and can be held.



**Solid**

Examples:



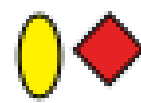
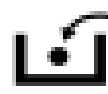
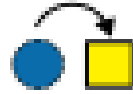
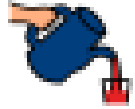
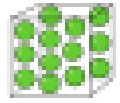
book



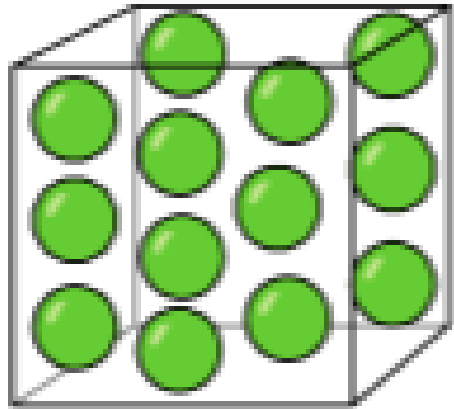
cup



phone



Liquids pour easily and change shape in different containers.



Liquid

Examples:



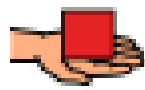
water



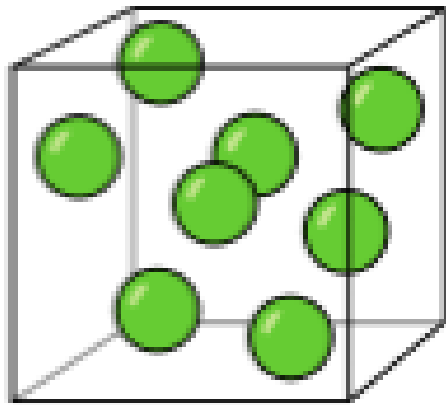
juice



milk



Gasses are invisible and have no fixed shape.



Gas

Examples:



steam



oxygen

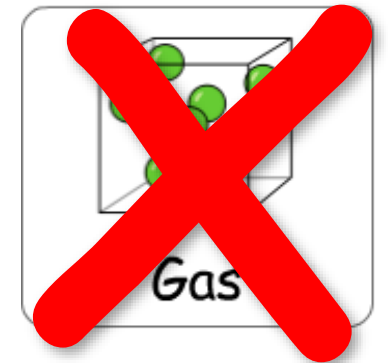
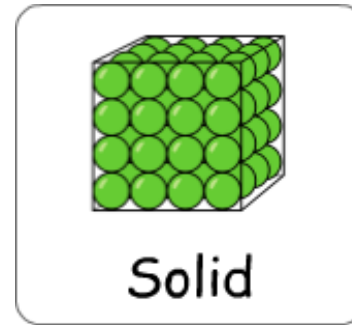


aerosol

Blue  
Group

Is it a solid, liquid or gas?

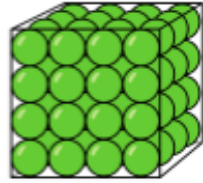
1



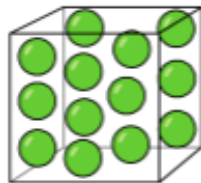
Solid

---

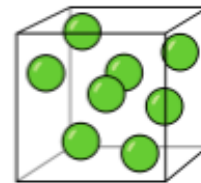
# Green Group



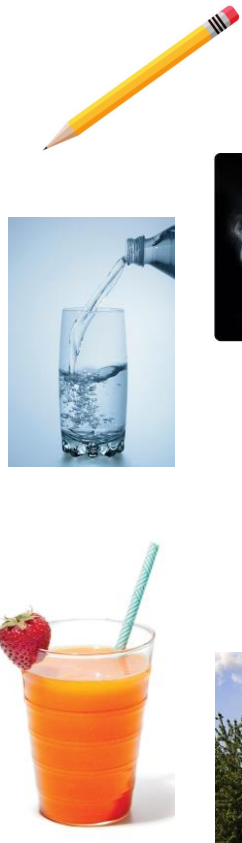
Solid



Liquid



Gas

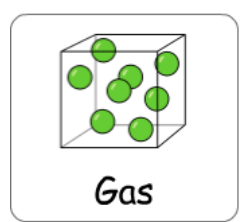
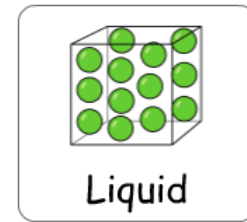
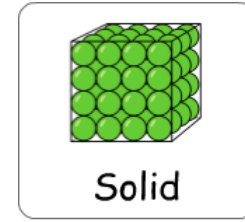
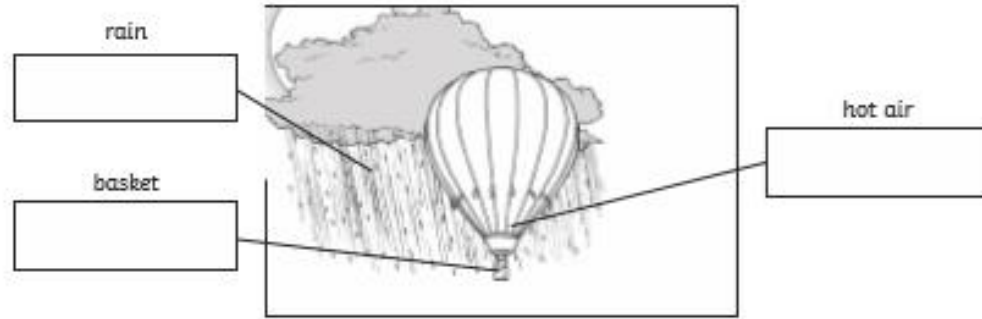
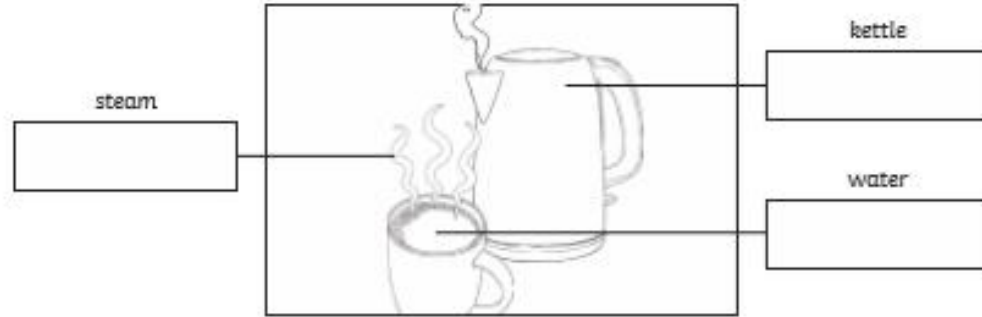


Can you think of any others examples?

# Red Group

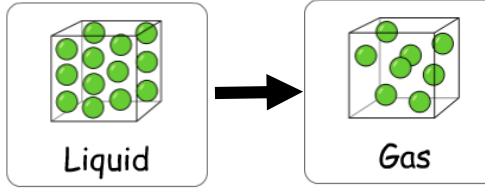
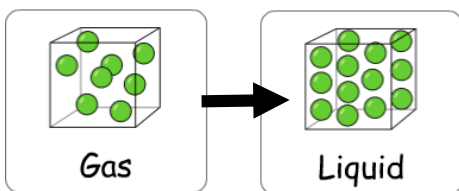
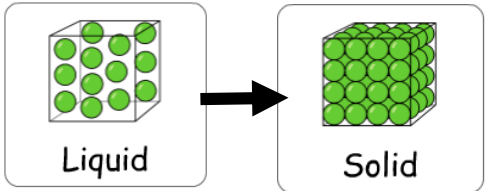
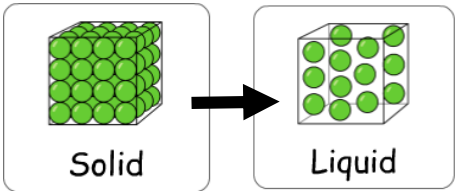
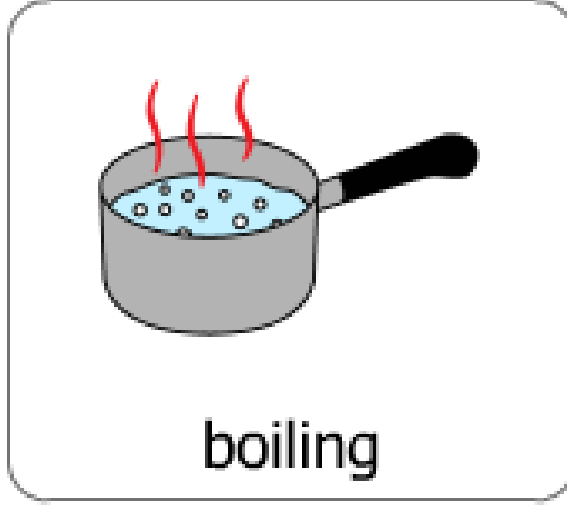
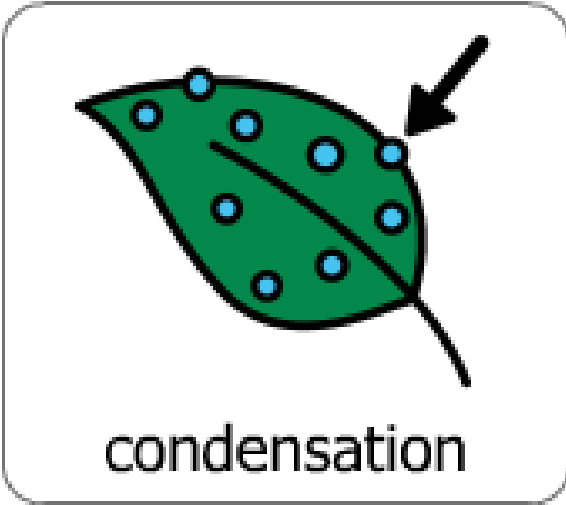
## Gases, Liquids and Solids

Look at the diagrams below. Write in each box whether the labelled part is a gas, a liquid or a solid.



Write down two more examples of solids, liquids and gasses.

# Changing state








Blue  
Group

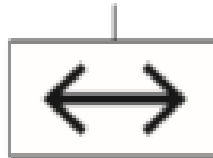
## 2 Changes from Heating

Consider what each substance would look like before and after it was heated. Is it a reversible or irreversible change?

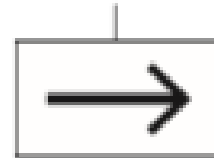
Item	Before It Was Heated	After It Was Heated	Reversible or Irreversible Change?
Egg 			
Bread 			
Ice cube 			

## 3 Reversible and Irreversible Changes

reversible



irreversible



Using the key above draw the correct arrow between the pictures. Write whether each transformation is a reversible or an irreversible change.



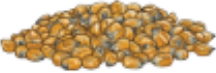





# Green Group

## Changes from Heating

Draw and write about what each substance looked like before and after it was heated.

Think about what happens to the following items when they are heated. Is it a reversible or irreversible change?

Item	Before It Was Heated	After It Was Heated	Reversible or Irreversible Change (Circle correct option)
<b>Egg</b> 		The egg became _____.	Reversible or Irreversible
<b>Bread</b> 		The bread became _____.	Reversible or Irreversible
<b>Corn kernels</b> 		The corn kernels became _____.	Reversible or Irreversible
<b>Ice cube</b> 		The ice cube became _____.	Reversible or Irreversible
<b>Butter</b> 		The solid butter became a _____.	Reversible or Irreversible
<b>Potato piece</b> 		The piece of potato became a _____.	Reversible or Irreversible

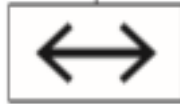
  

hard-boiled	burned	melted	chip	liquid	water	toast
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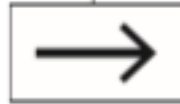
Green  
Group

## Reversible and Irreversible Changes

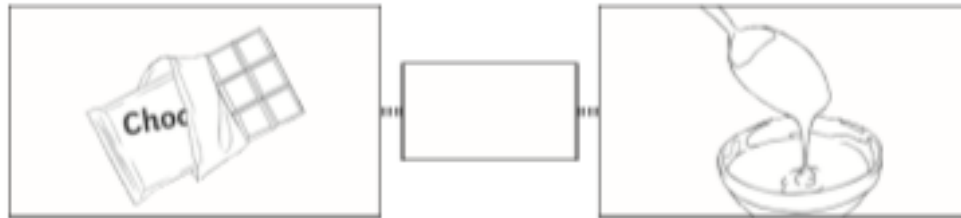
reversible



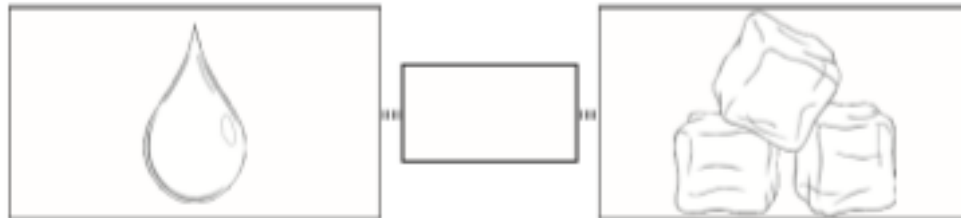
irreversible



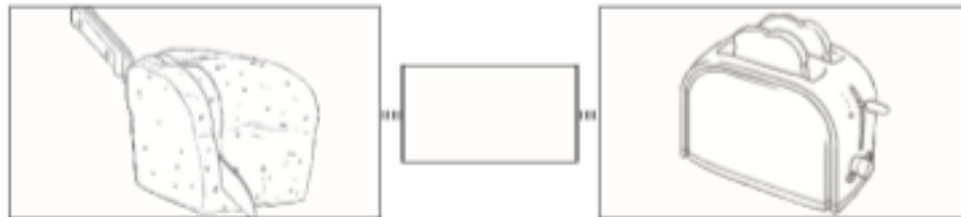
Using the key above draw the correct arrow between the pictures. Write whether each transformation is a reversible or an irreversible change.



Melting chocolate is \_\_\_\_\_ change.



Freezing water is \_\_\_\_\_ change.



Toasting bread is \_\_\_\_\_ change.

When chocolate melts  
it changes from a \_\_\_\_\_  
to a \_\_\_\_\_ .

When water freezes it  
changes from a \_\_\_\_\_  
to a \_\_\_\_\_ .

Red  
Group

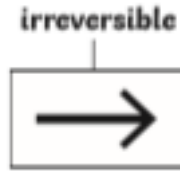
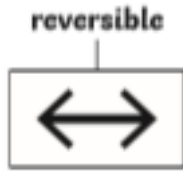
# Changes from Heating

Consider what each substance would look like before and after it was heated. Is it a reversible or irreversible change?

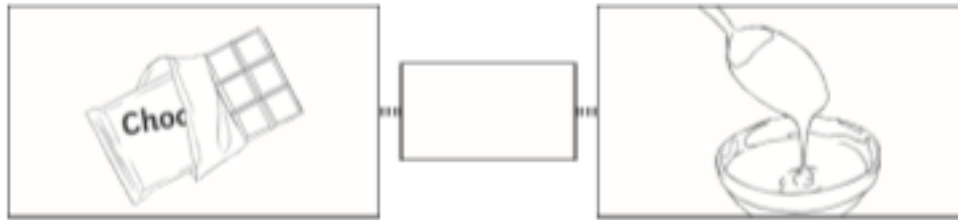
Item	Before It Was Heated	After It Was Heated	Reversible or Irreversible Change?
Egg • white • yolk			
Bread			
Corn kernels			
Ice cube			
Butter			
Potato piece			

# Red Group

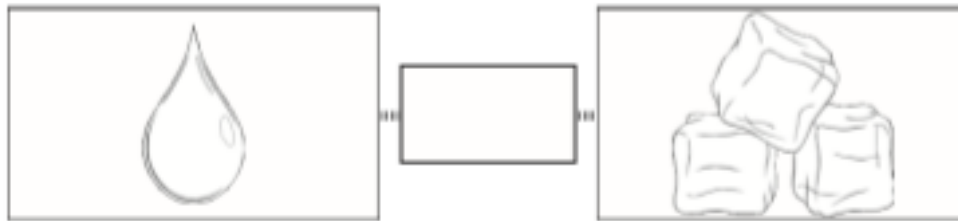
## Reversible and Irreversible Changes



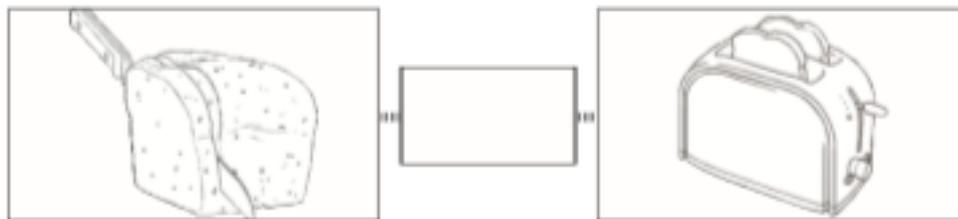
Using the key above draw the correct arrow between the pictures. Write whether each transformation is a reversible or an irreversible change.



Melting chocolate is \_\_\_\_\_ change.



Freezing water is \_\_\_\_\_ change.



Toasting bread is \_\_\_\_\_ change.

1. When chocolate melts it changes from a \_\_\_\_\_ to a \_\_\_\_\_ .
2. When water freezes it changes from a \_\_\_\_\_ to a \_\_\_\_\_ .
3. Can you think of another example of
  - melting
  - freezing
  - boiling