

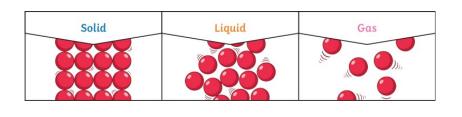
Year 4

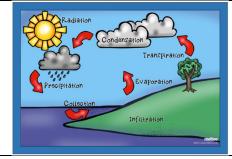
Focus: States of matter

Science

Age related scientific vocabulary

| gas | Gases spread out to completely fill the container or room. A gas is made up of particles that move around freely. |
|--------------|---|
| evaporation | When a liquid is heated and turns into a gas. |
| condensation | When gas is cooled and turns into a liquid. |





Key Knowledge

- All substances are made of matter and can be sorted, according to whether they are solids, liquids or gases:
- ⇒ **Solids** have vibrating particles which are closely packed together in a regular pattern. They keep their shape unless force is applied.
- ⇒ Liquids have particles which are close together but random. They can be poured and take the shape of the container they are in.
- \Rightarrow Gases have particles which spread out and move in all directions. spread freely to fill any space
- Materials change state when they are heated or cooled and different materials respond differently depending on the temperature: melting, evaporating, condensing and freezing.
- ⇒ **Evaporation**: when water (liquid) is heated, the particles move faster until they have enough energy to become water vapour (gas).
- \Rightarrow **Condensation**: when water vapour is cooled , particles slow down until it becomes a liquid again.
- Water on Earth is constantly being recycled over and over again. This is called the **water cycle**. Evaporation and condensation are important processes in the water cycle.

| Success Criteria | Pupil Reflection | | Teacher Assessment |
|--|------------------|-------|--------------------|
| I can explain the difference between a solid, liquid or gas | Before | After | |
| I can compare and group materials according to their state of matter | Before | After | |
| I can observe that some materials change state when they are heat- ed—I can begin to select appropriate format to record observations | Before | After | |
| I can observe that some materials change state when they are cooled—I can put forward ideas and make predictions | Before | After | |
| I can identify the part of played by evaporation and condensation in the water cycle | Before | After | |