

Final Outcome: We are working towards creating a fair test to show our knowledge of changing states and the effect heating and cooling has on materials.

Component 6: To conduct a fair test to investigate a question relating to changing states

What we will know after this sequence:

- Children will understand the effect heating and cooling can have on different materials and create their own fair test.
- They will be able to set up an experiment safely and use their knowledge of different states to investigate a question of their choice.

Vocabulary:

Solid, liquid, gas, state, particle, evidence

How will this feed into my next learning:

Pupils will use their knowledge of heating and cooling to plan, carry out and evaluate their own fair test.

SEN: Visual representation of all new vocabulary. Be aware of sensory sensitivities, encourage social integration for group work.



Component 4: To understand condensation and evaporation

What we will know after this sequence:

- Children will identify the part played by condensation and evaporation in the water cycle, focusing on the changes of state.
- They can use scientific language to explain how the processes occur.
- They can ask and investigate questions about condensation and evaporation.

Vocabulary: Condensation, evaporation, precipitation, particle, vapour, clouds

How will this feed into my next learning:

Pupils will use their knowledge of condensation and evaporation in the water cycle to understand the effect temperature has on the rate of evaporation.

SEN: Visual representation of all new vocabulary. Be aware of sensory sensitivities, encourage social integration for group work.



Component 5: To understand the importance of temperature in the water cycle

What we will know after this sequence:

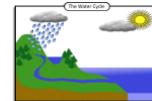
- The effect temperature has on the rate of evaporation and apply this knowledge to the water cycle.
- Pupils will notice that as temperature increases, evaporation time decreases.
- Pupils will demonstrate their understanding by carrying out an investigation.

Vocabulary: Evaporation, condensation, precipitation, transpiration, particle, temperature, change.

How will this feed into my next learning:

Pupils will use their knowledge of the effect temperature has on the rate of evaporation to understand the effect heating and cooling has on different materials.

SEN: Visual representation of all new vocabulary. Be aware of sensory sensitivities, encourage social integration for group work.



Component 3: To understand how cooling and heating can affect the state of materials

What we will know after this sequence:

- Children will know materials can change state if they are heated or cooled.
- They will explain how materials change between solid, liquid and gas.
- They will be able to identify examples such as chocolate melting, ice melting/freezing and water evaporating.

Vocabulary: Gas, particles, molecules, evidence

How will this feed into my next learning:

Pupils will use their knowledge of how materials can change state when heated or cooled to understand the changes of state involved in the water cycle.

SEN: Visual representation of all new vocabulary. Be aware of sensory sensitivities, encourage social integration for group work.



Component 2: To understand the properties of gases

What we will know after this sequence:

- Children will know that the particles in gases move around more freely than in liquids and solids.
- They will explain which gases are commonly found and their uses, for example oxygen and carbon dioxide.
- They will identify positive and negative effects of various gases such as oxygen supporting us breathing and carbon monoxide being poisonous.

Vocabulary: Gas, particles, molecules,

How will this feed into my next learning:

Pupils will use their knowledge of what constitutes solids, liquids and gases to understand that materials can change state depending on the temperature.

SEN: Visual representation of all new vocabulary. Be aware of sensory sensitivities, encourage social integration for group work.



Component 1: To classify solids and liquids

We should know:

That materials can be in different states.

What we will know after this sequence:

- Children will know that materials can take different forms depending on the way particles are arranged.
- They will learn how to classify solids and liquids based on the movement of molecules within them
- They will identify the features of solids and liquids and how they are used in daily contexts.

Vocabulary: Solid, liquid, particle, state, grain, matter, classify, evidence

How will this feed into my next learning:

Pupils will use their knowledge of solids and liquids and why they are different to understand gases.

SEN: Pre teaching new vocabulary using multisensory approach. Record verbal responses to task.

