

Inquiry question: How does the weather affect humans?

**Science unit:** States of matter and sound

**Strand:** Physics and chemistry

**What children will need to already know to access this unit:**

There are a variety of everyday materials including wood, plastic, glass, metal, water and rock.  
The roles of melting, evaporation and condensation in the water cycle and the role temperature have on the rate of evaporation.  
Materials can be changed through heating and cooling – linked to cooking in previous years.

**Why is this unit being taught in this term and links to previous learning.**

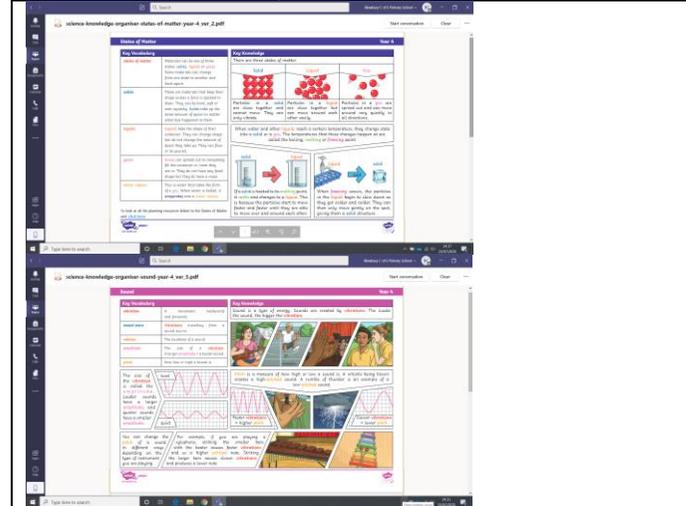
Links with the inquiry question about weather – water cycle  
Previous learning on habitats  
Previous learning about climate/weather  
Links to unit on everyday materials/uses of materials – year 1 and 2  
Link to pitch and volume of sounds in music unit

**Science skills – Scientific Enquiry**

Sort and classify materials together according to whether they are a solid, liquid or gas.  
Observe what happens and ask questions about how some materials change when they are heated or cooled.  
Gather data to answer questions about the temperature at which changes of materials, such as water, happen.  
Set up a simple comparative test to identify the link between surface area and evaporation.  
Reporting on their findings from an enquiry (literacy link)  
Present results and conclusion (best material for blocking sound waves)

**Key vocabulary/glossary of terms:**

Particles	are tiny bits of matter that make up everything in the universe
Temperature	How hot or cold something is.
Tone	quality of spoken or musical sound
Speaker	an electronic device that produces sound



For further vocabulary refer to the Twinkl word banks saved in teams -see pictures above..

**What will children know by the end of this unit:**

**States of matter**

Some changes are reversible, and some changes are irreversible.  
Particles are what materials are made from.  
They are so small that we cannot see them with our eyes.  
The properties of a substance depend on what its particles are like, how they move and how they are arranged  
Particles behave differently in solids, liquids and gases.  
What a solid, liquid and gas is.  
What happens to the particles in water when it is heated and cooled.

**Sound**

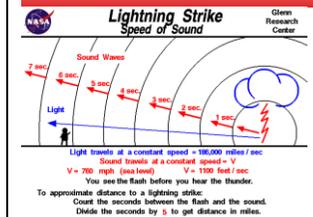
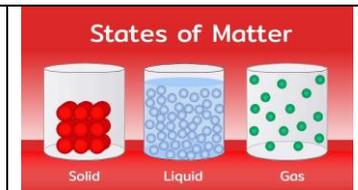
When objects vibrate, a sound is made.  
The vibration makes the air around the object vibrate and the air vibrations enter your ear. These are called sound waves.  
If an object is making a sound, a part of it is vibrating, even if you cannot see the vibrations.  
Which materials are the best for blocking sound (design earmuffs to block out the sound of thunder)?

Sound waves travel through a medium (such as air, water, glass, stone, and brick). For example, the sound of thunder can travel through the bricks in the wall so you can hear it from inside your house.

Sound cannot travel through a vacuum

**Weather – impact on habitats**

Know that weather can have an impact on living things and their habitats - can cause displacement.



**Teacher Notes**

Read the story of The Children of the water god from the science through stories book. Link with literacy – creation myth  
Read the story of “The bat who learned to click’ from the science through stories book. Link with literacy – folk tale.  
  
Link with onomatopoeia and poetry (Literacy Link)