OBJECTIVE	MILESTONE INDICATORS	BASIC ACTIVITIES	ADVANCED ACTIVITIES	DEEP ACTIVITIES	RESOURCES
Define & describe solids, liquids & gases	**Milestone 2** Compare & group materials together, according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled, & measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics.	Identify the 3 states.	Describe the 3 states.	Explain how the atoms are moving in the 3 states.	Blocks, jugs, sand, marbles, camera, magnifying glasses, kettle
Understand that air is a substance		Understand that air is a thing.	Describe how air (a gas) can behave.	Compare some of the properties of air with those of liquids & solids.	Wkshts, large containers, transparent beakers, bottle, balloon, paper towel, bluetak
Use a thermometer	Identify the part played by evaporation & condensation in the water cycle & associate the rate of evaporation with temperature.	Read the temperature on a thermometer. Explain & illustrate that evaporation is liquid turning to gas. .	Read the scale on a thermometer using °C & negative measurement. Explain that heat causes evaporation - & how temperature is related to speed.	Create & complete a classroom temperature enquiry. Explain evaporation using scientific language.	Thermometers, squared paper, ice, kettle. Wkshts, petri dishes, paint, jugs, kettle

Investigate evaporation Investigate condensation Investigate separating solutions & mixtures	**Milestone 1** To investigate materials: Distinguish between an object & the material from which it is made. Identify & name a variety of everyday materials, including wood, plastic, glass, metal, water & rock. Describe the simple physical properties of a variety of everyday materials. Compare & group together a variety of everyday materials on the basis of their simple physical properties. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting &	Explain & illustrate explain that condensation is gas turning to liquid. Pick suitable equipment to use. Discuss & understand terms reversible & irreversible.	Explain that coldness causes condensation. Work out how to separate the different solids. Illustrate & describe reversible & irreversible changes.	Explain how condensation is linked to evaporation using scientific language. Carry out my investigation in a systematic way. Explain predictions & compare to results.	Wkshts, ice cubes, plastic bags, measuring jugs, kettle Plastic bags, measuring jugs, funnels, sieves, filter paper, petri dishes, thermometers, scales, labels, paper towels Sand, sugar, polyfilla, tables, containers, spoons, labels, sieve, filter paper, plastercine for moulds

Mix materials to produce both reversible & irreversible changes	stretching. Identify & compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, & paper/cardboard for particular uses.	Illustrate & label examples of when heating has caused both reversible & irreversible changes.	Explain how irreversible changes produce new materials.	Explain, using scientific language, how irreversible changes produce chemical changes.	Hard boiled egg, microwave, toaster, whisk, chocolate, bread, cake mix, raw eggs
Heat materials to produce reversible & irreversible changes		Label the water cycle.	Explain the elements of the water cycle.	Explain the water cycle using scientific language.	IW water cycle, water cycle template