Y1 SCIENCE PLANNING – AUTUMN 2024 – Senses (What is a scientist?), Seasons, Materials			
Lesson	**Substantive Knowledge**	**Disciplinary knowledge**	**Key Questions**
Lesson 1	To know that taste is one of the five senses. To know that taste buds on the tongue are responsible for the sense of taste.	To identify familiar foods by taste. To distinguish sweet from sour.	Can you guess what it is? What flavour can you taste? What part of your body is doing the tasting? Is it sweet/sour? What are your favourite foods? Which foods do you dislike?
Lesson 2	To know that touch is one of the five senses. To know that skin is sensitive to touch – not only the hands.	To identify and describe objects by touch.	Which parts of the body were most sensitive? Can you describe how it feels? Which adjectives can you use to describe how something feels? eg soft, hard, rough etc. Did you guess the object correctly? Which were hard to identify? Why?
Lesson 3	To know that hearing is one of the five senses. To know that we hear with our ears.	To identify a variety of sounds. To investigate how sound changes in volume as you move away from it.	What do you think is making the sound? What kind of sound do you think it is? Can you describe the sound? What happens to sounds as we move away/get closer to them? How does that instrument make a sound? What are we doing to it? What part of the body do we use to hear sounds?
Lesson 4	To know that smell is one of the five senses. To know that we smell with our nose.	To identify some familiar smells.	What does it smell of? Which smells do you like/dislike? Is been able to smell useful? When and why?
Lesson 5 SEASONS	To know and order the four seasons.	To begin to link the months of the year to the relevant seasons. To identify characteristics autumn.	What does the green/yellow ball represent? In which month is your birthday? What is the weather like on your birthday? What is the weather like at Christmas? Which season is this? What changes can you see outside? What colours are the leaves? What do the trees look like? What is happening to the weather?

			What type of clothes are you wearing?
Lesson 6	To know some signs of autumn. To know the names of some trees and their seeds. To know the difference between deciduous and evergreen.	To recognise changes to the natural environment that happen in autumn. To identify and record evidence of autumn. To identify some common tree species. To mix secondary colours.	What is happening to the leaves? What colours can you see? What else can you see on trees? eg conkers, acorns What do the trees look like? Can you describe the leaf shape? Do you know what this tree is called? What do we call a tree that loses its leaves? What do we call a tree that keeps its leaves?
Lesson 7 MATERIALS	To know that different materials have different properties.	To use our senses to explore/classify materials. To use new vocabulary to describe materials.	What do they look like? How do they feel? Do they bend? etc Can you see through them? Which senses are you using?
Lesson 8	To know some common materials.	To identify a range of materials used in our environment. To recognise that objects can be made up of a mixture of materials eg scissors – metal and plastic.	What is this material called? What properties of the material do you know? Why is the material good for the job? Can anyone see anything made of metal/glass etc? Can you find an object made of at least 2 materials?
Lesson 9	To know that some metals are magnetic, but not all.	To explore which materials are magnetic.	Is this object magnetic? How do you know? What do you predict will happen when I put the magnet near …..?
Lesson 10	To know the meaning of a fair test. To know that materials are used for different purposes based on their properties.	To begin to understand a fair test. To carry out a simple test to find the strongest paper. To measure using non-standard units and use their observations to answers questions.	How can we find out which paper is the strongest? How can we make the test fair? What are we keeping the same? What are we going to change? Why is it important to count accurately?
Lesson 11	To know that some materials will float/sink.	To investigate which objects float/sink.	Which materials floated and which sank? Do all metal objects sink? Can a material be altered to make it float/sink?

Lesson 12	To know that materials can be changed by diff temperature. To know that some changes are reversible, and others are irreversible.	To observe the changes in water, chocolate and an egg due to heating and cooling. To use the vocabulary solid and liquid, reversible and irreversible.	What are ice-cubes made of? What has happened to the water? What do you think will happen if we leave them out? Can we turn the water back into ice? How?
Lesson 13	To know that some materials are waterproof. To know some uses of waterproof materials.	To perform a fair test to discover which materials are waterproof. To use their observations to suggest answers to questions.	Why do we need waterproof materials? How can we make this test fair? What are we keeping the same? What are we going to change? Which material is the best for Teddy's umbrella? Why?
Lesson 14	To know that some materials reflect light.	To test different papers to see which show up the best in the dark.	Which materials reflect the light best? Why have you designed Teddy's coat in this way?
Lesson 15 Possibly in the new year.	To know some signs of winter.	To identify the seasonal changes in winter including the weather.	Which months were in autumn? Can we work out which months are in winter? What changes can you see in the environment? What will you expect to see in the next few weeks? What do you expect to happen to the temperature? What is happening to the hours of daylight?