

PEMBRIDGE CE PRIMARY SCHOOL LEARNING JOURNEY ITINERARY

Pembridge is a school where we encourage everyone to be inspired through faith in God and to live by Christian values so that our teaching and learning is of the highest quality, our whole community flourishes and we reflect all that is worthy of praise.

SUBJECT: Science

YEAR: A

TERM: Summer 1

YEAR GROUPS: 3/4

KEY QUESTION: Can materials change?

PREVIOUS KNOWLEDGE We would expect most children to already be able to:

- Understand that there are a range of different materials and how some are particularly suited to certain uses because of their properties.
- Distinguish between a material and an object.

End of Unit Objectives

*Some children will not yet have met what is expected and show they are **emerging** because they can:*

- Identify several different materials in the classroom and specify at least one property of each (KQ1)
- With support, explore a range of materials (KQ1)
- Describe how you might identify the presence of a gas. (KQ2)
- Match a diagram to a solid, liquid and gas with teacher support. (KQ2)
- With support, use a thermometer to measure temperature to within 5 degrees. (KQ3)
- Use teacher support to design an investigation into evaporation. (KQ4)
- Use given captions to aid the composition of a diagram about the water cycle. (KQ5)

*Most children will show that they have reached the **expected** level because they can:*

- Through peer discussion, identify further properties of materials (KQ1)
- In groups, discuss the properties of a range of materials to be explored. (KQ1)
- Independently, explain how you know that a gas is present - prove it! (KQ2)
- Independently, make a diagram to represent the three states of matter. (KQ2)
- Measure temperatures to within 2 degrees. (KQ3)
- Use group ideas to help to design an investigation into evaporation. (KQ4)
- Create an annotated diagram that explains the water cycle. (KQ5)

*Some children will have gone beyond the expected level and show that they are **exceeding** because they can:*

- Appreciate the common properties of a particular material (KQ1)
- Discuss the properties of materials using more scientific vocabulary. (KQ1)
- Speculate on the possible classification of materials such as gels or shaving foam. (KQ2)
- Link an explanation to diagrams of the three states of matter. (KQ2)
- Measure temperatures accurately and understand freezing and boiling points. (KQ3)
- Generate further questions about evaporation for investigation. (KQ4)
- Use language of greater depth when explain the water cycle eg precipitation and relate the cycle back clearly to previous learning. (KQ5)

ASSESSMENT OPPORTUNITIES – What are children aiming for?

Children will be able to demonstrate their learning through:

- Verbal responses during discussion in lessons and further questioning to extend their understanding.
- The completion of practical and written tasks based on learning
- The ability to ask appropriate questions, to solve problems and to make links in learning.

ENRICHMENT OPPORTUNITIES –

What can we give children along the journey to help them remember more?

We will endeavour to include:

- Resources of quality
- A range of practical tasks

CROSS-CURRICULAR LINKS –

What links can we make to help children make sense of what we want them to know and be able to do?

This itinerary fits with our other learning through:

- English - diagram annotation, written explanations
- Mathematics - reading a temperature scale.

LEARNING BEHAVIOURS *Children will be expected to:*

Tries new things	Be willing to try something even though it may not be successful at first.
Works hard	Respond to pink marking and discussion with a teacher order to further understanding.
Concentrates	Complete tasks within the given time frame and shows that they are using learning in subsequent tasks.
Self-motivates	Ask questions to extend knowledge and understanding.
Imagines	Visualise and predicts based on information provided and research carried out and uses this to make links in learning.
Improves	Respond positively to feedback.
Understands others	Work collaboratively to solve problems and to enhance achievement across the class.
Doesn't give up	Persevere with challenges that are set even when they become tricky.