

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: Autumn 1

YEAR GROUPS: 3/4

KEY QUESTION: *How do forces affect me?*

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

- Talk about forces as pushes and pulls
- Put data onto a table and to take measurements with a ruler and metre stick
- Have a knowledge of fair testing

End of Unit Objectives

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

- To identify pushes and pulls. **KQ1**
- To identify rough and smooth surfaces and to observe toy cars travelling on these. **KQ2**
- To observe that magnets can have an effect without coming into contact with another material. **KQ3**
- To try a range of materials to investigate those that are attracted by a magnet. **KQ4**
- To carry out a fair test with support. **KQ5**

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

- To recognise that forces usually produce movement. **KQ1**
- To identify the force of friction and to talk about its effect on movement as well as to take measurements in addition to making observations. **KQ2**
- To compare at least one aspect of friction and magnetism. **KQ3**
- To try a range of metals to identify those that are attracted by a magnet. **KQ4**
- To carry out a fair test, contributing ideas about how this might be carried out. **KQ5**

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

- To recognise that some forces can start movement but others may slow it down or stop it. **KQ1**
- To relate findings on friction to other objects and contexts eg on a bicycle. **KQ1**
- To compare magnetism and friction with greater precision. **KQ3**
- To appreciate contexts where magnets might be used eg. sorting metals for re-cycling. **KQ4**
- To consider other ways of answering the same question through an investigative method. **KQ5**

ASSESSMENT OPPORTUNITIES – What are children aiming for?

Children will be able to demonstrate their learning through:

- Verbal responses during discussion in lessons and verbal and written explanations.
- Organised approaches to investigations
- Evidence of accurate observations and measurements

ENRICHMENT OPPORTUNITIES –

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

We will endeavour to include:

- Many practical activities
- Quizzes and ‘physical’ ways of remembering

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:

- Maths - measurements, calculations, bar graphs
- D and T - making a magnet game

LEARNING BEHAVIOURS *Children will be expected to:*

Tries new things	Uses unfamiliar equipment.
Works hard	Responds to pink marking in order to further understanding and tries practical activities again when they do not go to plan.
Concentrates	Completes tasks within the given time frame and stays on task.
Self-motivates	Makes decisions about practical tasks.
Imagines	Considers the work in a different context.
Improves	Makes additions or corrections based on feedback and checks results.
Understands others	Works co-operatively as part of a group.