

Learning Flow

Term 1- Forces

What do we already know?

- Topic Page - Prior knowledge , What do we already know? What questions do we have? What is a significant individual? How might they have changed our world?

Working Scientifically – Observing & Exploring.

- Explore magnets and materials.
- What do they notice?
- Introduce N and S poles and attract and repel.
- Record their observations using scientific language.

Forces and magnetic forces.

- Learn about how forces work.
- Understand that most forces need contact between objects.
- Explore and investigate how magnetic forces differ. Record questions & observations.

Magnetic vs non-magnetic

- How do we know a material is magnetic?
- Magnetic hunt. Finding materials.
- Can they sort/ group into magnetic and non-magnetic?
- Make predictions.
- Record observations.

Significant Scientists

Michael Faraday:

- Michael Faraday was an English scientist. In 1831, he discovered electromagnetic induction.
- Make temporary magnets, test and observe.

Exploring/ Investigating

- Investigate magnetic forces working at a distance- Whole class investigation.
- Plan, record, interpret, conclude and evaluate.

What do we know now?

- Draw it/ Explain it consolidation tasks.
- Quiz.
- Flashforward- Next term. What do we know?

Learning Flow

Term 2- Light

What do we already know?

- Topic Page - Prior knowledge , What do we already know? What questions do we have? What is a significant individual? How might they have changed our world?

How do we see?

- Recognise that they need light in order to see things.
- Recognise that dark is the absence of light.
- How can light affect our sight?

Reflective materials & Significant Scientists.

- What happens when the light hits a reflective material?
- What happens if you change the position of the light?
- What did Justin von Liebig create? How has this impacted us?

How can the sun be dangerous?

- How can the sun be harmful to us?
- How can we protect ourselves?
- How does it affect our eyes?- Dark to light.
- UV. What is it? How can we protect ourselves? UV beads.

How are shadows formed?

- What is a shadow?
- Explore transparent, translucent and opaque materials. What do they observe? Record.
- How can the darkness of the shadow be changed?

Exploring/ Investigating

- Investigate how shadows change size.
- Plan, test, record data.

Exploring/ Investigating

- Investigate how shadows change size.
- Present data, conclude and evaluate.

What do we know now?

- Draw it/ Explain it consolidation tasks.
- Quiz.
- Flashforward- Next term. What do we know?

Learning Flow

Term 3– Rocks

What do we already know?

- Topic Page - Prior knowledge ,
- What do we already know? What questions do we have? What is a significant individual? How might they have changed our world?

Explore and investigate

- Explore different types of rocks.
- Use senses to describe and sort.
- How are rocks useful?
- Have a go at classifying different types of rocks.

Soil– Explore & test

- How is soil formed?
- Why is it important?
- Testing different soil samples.
- What do we notice?

Rock types

- Explore the 3 different rock types.
- Identify characteristics of igneous, sedimentary and metamorphic rock.
- Practical investigation.

How are fossils formed?

- Explore the process of fossils.
- Ask questions.
- Write an explanation text around how fossils are formed.

Significant Scientists

Dawn Wright

- Dr. Dawn Wright, chief scientist of Esri, is a specialist in marine geology, geography, and oceanography.
- Write a letter to Dawn.

What do we know now?

- Draw it/ Explain it consolidation tasks.
- Quiz.
- Flashforward- Next term. What do we know?

Learning Flow

Term 4- Plants part 1

What do we already know?

- Topic Page - Prior knowledge , What do we already know? What questions do we have? What is a significant individual? How might they have changed our world?

Recap (Year 1 content)

- What are the parts of the plant?
- What are their functions?
- Can they draw diagrams, add labels and write explanations?

Making food

- Leaves make food for the rest of the plant.
- How do they do this?
- Observe oxygen leave the leaves- food making process.

Recap (Year 1 content)

- Identify, classify and name.
- Name parts of their bodies. How are they different based on what they eat?

Human body

- Name & draw body parts.
- Name senses. How are they linked?
- What parts exist but we cannot see?

Compare

- How are animals and humans similar? How are they different?
- What body parts do they have? How are they different?
- How do animals & humans adapt to their environment?

Significant scientists

Aristotle (384-322 BC)

- Is credited with first numbering the senses in his work De Anima.

Linda Buck Born 1947.

- Co-discovered how our sense of smell works.

What do we know now?

- Draw it/ Explain it tasks.
- Quiz.
- Flashforward- Next year. What do we know?

Learning Flow

Term 5– Plants part 2

What do we already know?

- Topic Page - Prior knowledge , What do we already know? What questions do we have? What is a significant individual? How might they have changed our world?

Working Scientifically – Observing

- Go outside and explore different plants.
- Do they know names?
- Can they describe the plants using their senses?
- Can they ask key questions? .

Parts of a plant

- What do children know?
- Can they name them?
- Can they describe them?
- Can they draw them?

Parts of a tree

- What do children know?
- Can they name them?
- Can they describe them?
- Can they draw them?

Exploring/ Questioning

- What do plants need to grow?
- Ask Questions.
- Time lapse of a plant growing.
- Write a class poem about what plants need to grow.

Exploring/ Investigating

- What do plants need to grow?
- Ask Questions.
- Plan and conduct an investigation about plants needing sunlight or water.

What do we know now?

- Conclude Plant investigation. What do we notice? Draw it/ Explain it tasks.
- Quiz.
- Flashforward- Next term. What do we know?

Learning Flow

Term 6 – Animals including humans

What do we already know?

- Topic Page - Prior knowledge , What do we already know? What questions do we have? What is a significant individual? How might they have changed our world?



Working Scientifically

- Plan and conduct an investigation about plants needing sunlight or water. Record & conclude in week 4.

Working Scientifically – Observing

- Using pictures and real life examples, explore UK based flowers and plants & trees.



Working Scientifically – Observing

- Difference between deciduous and evergreen trees.



Concluding & Explaining

- Conclude investigation around what plants need to grow.
- What do they notice? How can they link their findings to their knowledge of plants?



Significant scientists

Wangari Maathai

- Wangari Maathai was a Kenyan environmentalist who began a movement to plant trees and re-forest her country.



What do we know now?

- Conclude Plant investigation. What do we notice? Draw it/ Explain it tasks.
- Quiz.
- Flashforward- Next term. What do we know?

