

# Curriculum Overview: Science - A Sense of Discovery

**Autumn** Understanding the World The Natural World



Polar Bear, Polar Bear Understanding the World The Natural World



Winter Understanding the World The Natural World



**Spring and Easter** Understanding the World The Natural World



**Animals** Understanding the World The Natural World



Animals (wild) Understanding the World The Natural World

## **School Nursery (3 Year Olds)**



**Pets** The Natural World



**Autumn** The Natural World



Winter Understanding the World Understanding the World Understanding the World Understanding the World The Natural World



Farm Animals The Natural World



Spring Understanding the World The Natural World



**Minibeasts** Understanding the World Understanding the World The Natural World



**Plants & Growing** The Natural World

## Reception



**Autumn** The Natural World



**Materials** The Natural World



Winter The Natural World



**Animals** The Natural World



Spring The Natural World



**Plants** Understanding the World The Natural World



**Minibeasts** The Natural World

## Morningside Curriculum Overview: Science



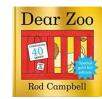
#### Year 1







David Attenborough



George Washington Carver







Chemistry

#### **Materials**

#### Why is plastic useful?

- Identify and name different materials
- Group different materials
- Describe simple properties of materials

## **Biology Animals**

#### How are animals different?

- Name and identify animals
- Omnivores, carnivores and herbivores
- Name and label basic body parts

## **Biology Plants**

#### Are all plants the same?

- Identify and name plants and trees
- Identify and label parts of a plant
- Discover how plants have changed over time

#### **Physics**

## Seasons (inc. light)

#### Why is it cold and dark in December?

- Observe changes across the 4 seasons
- Observe and describe weather across the seasons
- Describe how day length varies

## Year 2



Charles Goodyear



Jane Goodall





Steve Irwin





Beatrix Potter

## Chemistry **Materials**

#### What material would make the best wellies?

- Identify & compare everyday materials
- Explore how to change the shape of solid objects
- Choose suitable materials for purpose

## **Biology Animals**

## How do animals survive?

- Compare animals over time
- The importance of a balanced diet
- The importance of personal hygiene

## **Biology Habitats**

#### Who lives where?

- Understand living things live in habitats to which they are suited
- Identify plants and animals in a microhabitat
- Discover how animals obtain food

## **Biology Plants**

## What does a plant need to grow?

- Compare plants and their habitats
- Compare plants
- Label parts of a plant and understand how plants reproduce

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### Year 3





**Biology** 

**Animals** 

How are our bodies special?

• Classify foods into groups

Understand that nutrition

Understand the function

comes from food

of the skeleton



William Gilbert



Hasan Ibn al-Haytham









#### **Forces** Does the size and the shape of the magnet matter?

**Physics** 

- Compare how things move on different surfaces
- Understand that magnets attract some materials but not others
- Understand that not all forces require contact

## **Physics** Light

## Why can't we see in the dark?

- Recognise that light is needed for sight
- Understand how light travels to the eye
- Explain how a shadow is formed

## Chemistry

# **Rocks**

#### Why did the wise man build his house upon the rocks?

- Compare rocks according to their properties
- Discover how different rocks are formed
- Find out what rocks are made from

#### **Biology Plants**

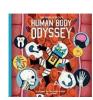
#### How does your garden grow?

- Explore the requirements of a flowering plant
- Explain how water travels in plants
- Understand pollination

## Year 4



Elizabeth Garrett Anderson





Dian Fossey





Benjamin Franklin



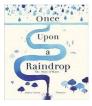


James West





Captain Robert Scott



## Chemistry

#### States of Matter Where does all the water go?

- Observe changes of state
- Understand evaporation and condensation
- Describe the stages in the water cycle

## **Biology Habitats**

#### How can we tell the difference between living things?

- Group living things
- Use classification keys
- Explore our local environment

#### **Physics Electricity**

## What do we need to create a circuit?

- Identify appliances that run off electricity
- Construct a simple circuit
- Identify conductors and insulators

## **Physics** Sound

## Can we block sound?

- Understand that sound is created by vibrations
- Understand how sound travels to the ear
- Recognise the relationship between sound and distance

## Construct basic food chains • Identify parts of the

digestive system

Biology

Animals (inc. Humans)

Do we only need our teeth to

 Identify different types of teeth and their functions

## Morningside Curriculum Overview: Science



#### Year 5







CHARGING ABOUT

Virginia Apgar











Maggie Aderin-Pocock



## **Physics**

#### **Forces**

#### How useful are forces?

- Explain why objects fall to the Farth
- Investigate air resistance
- Investigate the effect of water on gravity

## **Biology**

#### **Human development** How do I change as I grow?

- Explain how humans have changed through time
- Understand the human life stages
- Predict how humans will change over time

## **Biology Life Cycles**

### Do all species start as an egg?

- Understand the stages in a human life cycle.
- Describe the process of animal reproduction
- Describe plant reproduction

## Chemistry

#### **Materials** How do we choose the materials we need for special jobs?

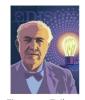
- Compare and group every day materials.
- Explain dissolvina
- Identify reversible and irreversible changes

#### **Physics**

#### Earth and Space How and why do the spherical bodies move in our solar system?

- Describe the planets in the solar system
- Describe the movement of the moon
- Explain day and night

#### Year 6



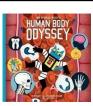
Thomas Edison



Julia Margaret Cameron

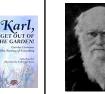


William Harvey





Carl Linaeus





Charles Darwin

## **Physics Electricity**

## How can circuits be changed?

- Design circuits for a burglar
- Identify broken circuits
- Create a circuit diagram using symbols

## **Physics** Light

#### Why can't I see round corners?

- Identify the factors that affect shadows
- Understand light is reflected
- Investigate light phenomena

## **Biology Human Biology** What does my blood do?

- Name the main parts of the circulatory system
- Understand pulse and blood pressure
- Describe the function of blood

## **Biology** Classification How and why do we classify living things?

- Classify organisms using keys
- Design a classification key
- Design a creature for a specific environment

#### **Biology Evolution and Inheritance** What is evolution & how does it help survival?

- Identify animals from fossils
- Understand variation
- Understand how adaptation leads to evolution