

EYFS

All about me

Ground, air, water

Animals

Journeys

Year 1

Why do we play with different toys as we grow older?

Hello I am new here

What can we learn about our world from stories?

Why is water so precious?

UN SDG : Responsible Consumption and Production

Year 2

Can party food be healthy?

Should we stop eating chocolate?

Audio Visual

Let's go on an adventure

How does electricity work?

Year 3

What makes us like other animals?

What happens inside of us?

Year 4

UN SDG: Climate Action

Are bugs important?

What is the best way for Mrs Armitage to travel?

UN SDG : Zero Hunger

UN SDG: Life Below Water

Do we make the most that are on our doorstep?

How successful are we as entrepreneurs?

UN SDG: Decent Work And Economic Growth

Year 5

The fairground

Out of this world – what's out there?

Why do some creatures no longer exist?

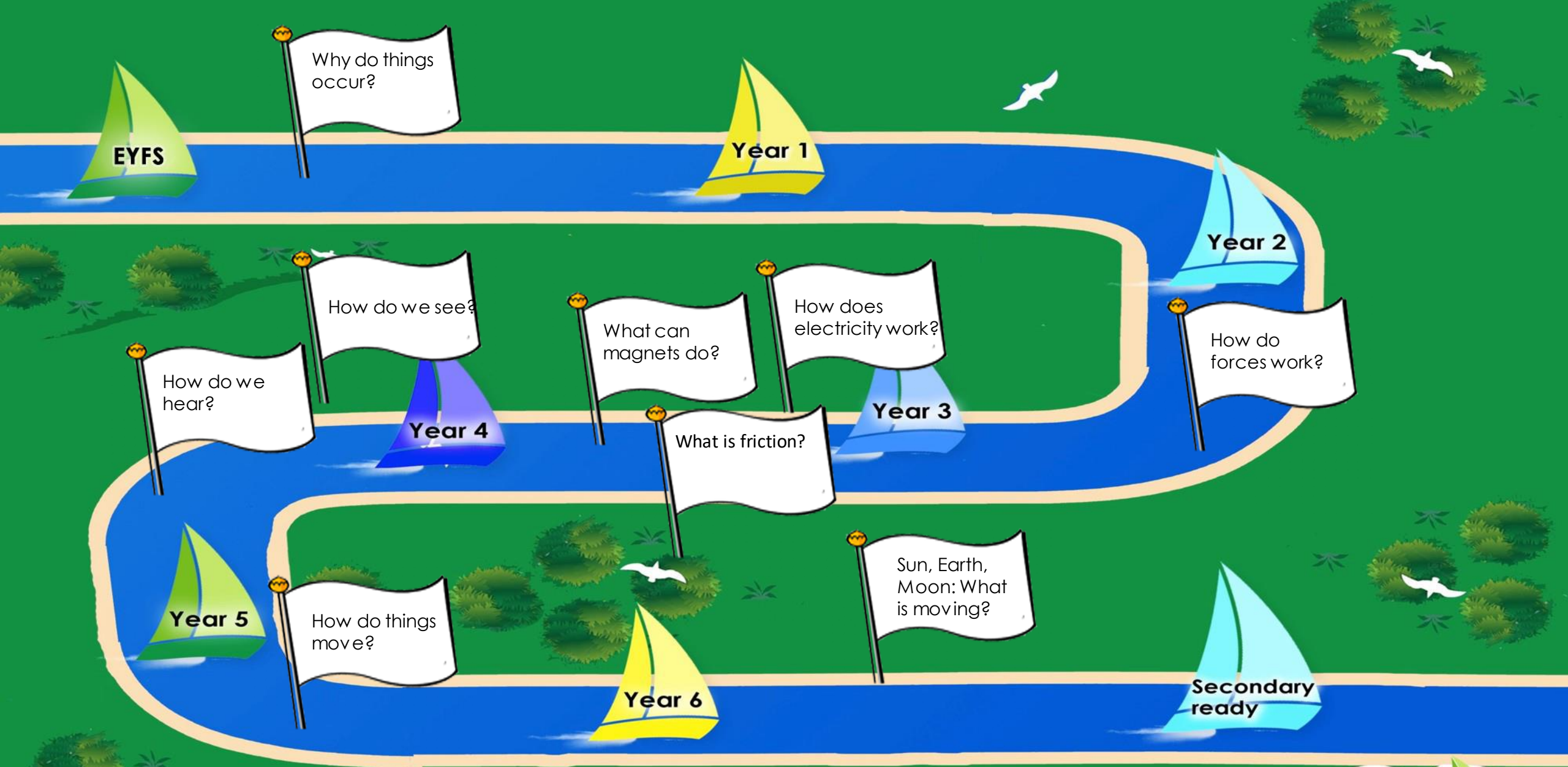
Secondary ready

What is it made of?

UN SDG: Reduced Inequalities

Year 6

# Science curriculum map



# Physics



# Breadth of study

EYFS

- Compare how things move on different surfaces
- Notice that some forces need contact between two objects
- Observe how magnets attract and repel each other
- Identify the effects of air resistance, water resistance and friction
- Recognise some mechanisms
- Observe how magnets attract and repel each other
- Compare and group materials based on magnetism
- Identify some magnetic materials
- Describe that magnets have 2 poles
- Predict if 2 magnets will attract or repel
- Explain that objects fall because of gravity
- Identify the effects of air resistance, water resistance and friction

Secondary  
ready

## Forces

# Breadth of study

EYFS

- Recognise that we need light to see things
- Notice that light is reflected from surfaces
- Recognise that light from the sun is dangerous and how to protect eyes
- Recognise how shadows are formed
- Find patterns in the way the size of shadows change
- Identify how sounds are made
- Recognise that vibrations from sounds travel through something to the ear
- Find patterns between the volume of a sound and vibrations produced by it
- Find patterns between the pitch of a sound and features of what produced it
- Recognise that sounds get fainter as the distance increases

Secondary ready

# Light and Sound

# Breadth of study

EYFS

- Identify common electrical appliances
- Construct a simple circuit, identifying its parts
- Identify whether or not a lamp will light in a simple series circuit
- Recognise that a switch opens and closes a circuit
- Recognise some simple conductors and insulators

Secondary ready

# Electricity

# Breadth of study

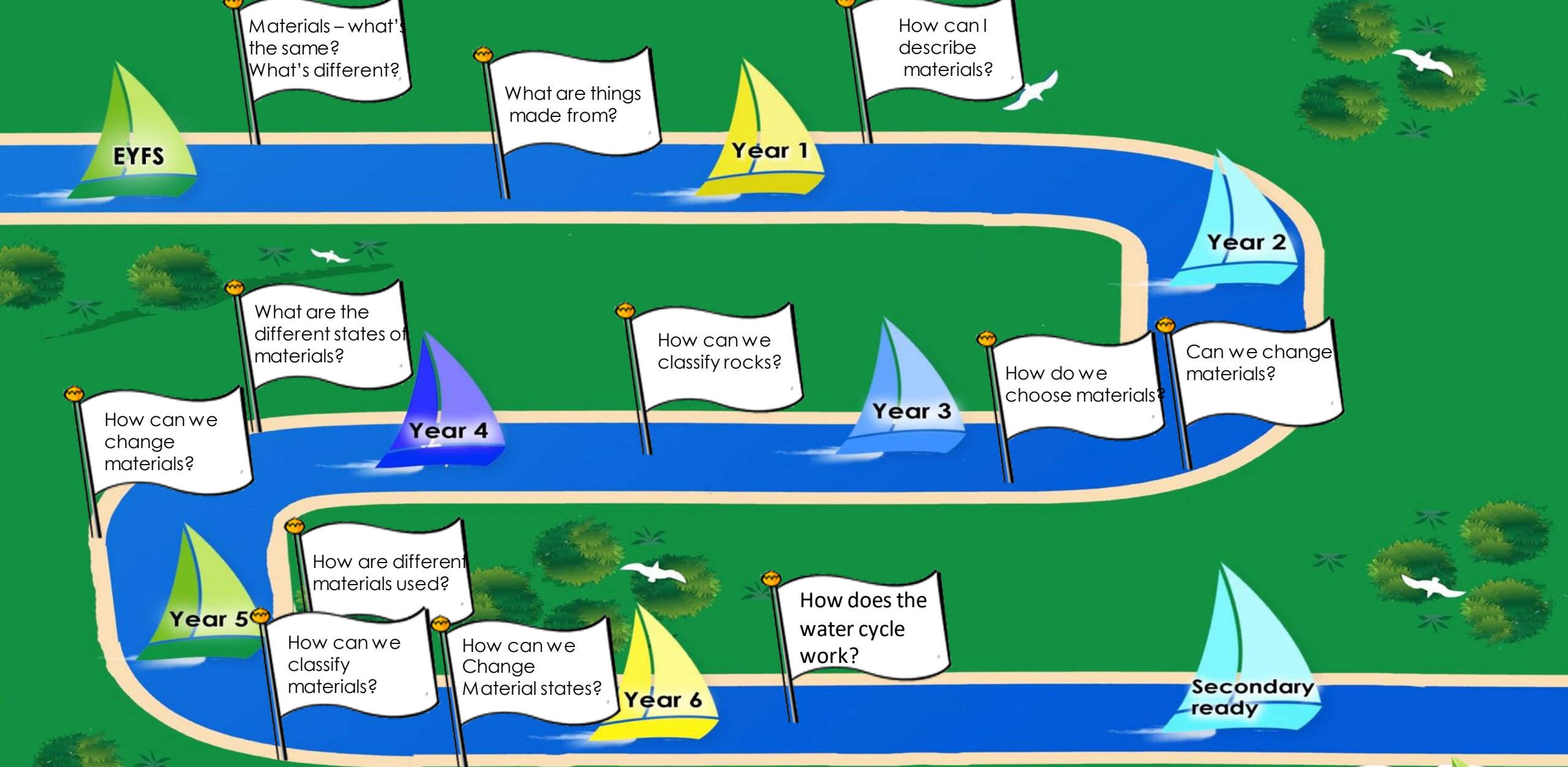
EYFS

- Describe the movement of the Earth and other planets relative to the Sun
- Describe how the moon moves in relation to the Earth
- Describe the Sun, Earth and Moon as approximately spherical
- Talk about the Earth's rotation to explain day and night

Secondary ready

# Earth and Space





# Chemistry

# Breadth of study

EYFS

- Identify and name a variety of materials
- Compare and group together materials based on their physical properties
- Describe physical properties of some materials
- Distinguish between an object and the material with which it is made
- Find out how the shapes of solid objects made from some materials can be changed
- Identify and compare the suitability of materials for particular uses
- Compare and group things together – solids, liquids, gases
- Observe that some materials change state when they are heated or cooled
- Compare and group together materials based on their properties
- Recognise that some materials will dissolve in liquid to form a solution
- Use knowledge of solids, gases and liquids to decide how mixtures might be separated
- Give reasons, based on evidence of tests, for the particular uses of materials
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Explain that some changes result in irreversible changes.

Secondary  
ready

# Materials



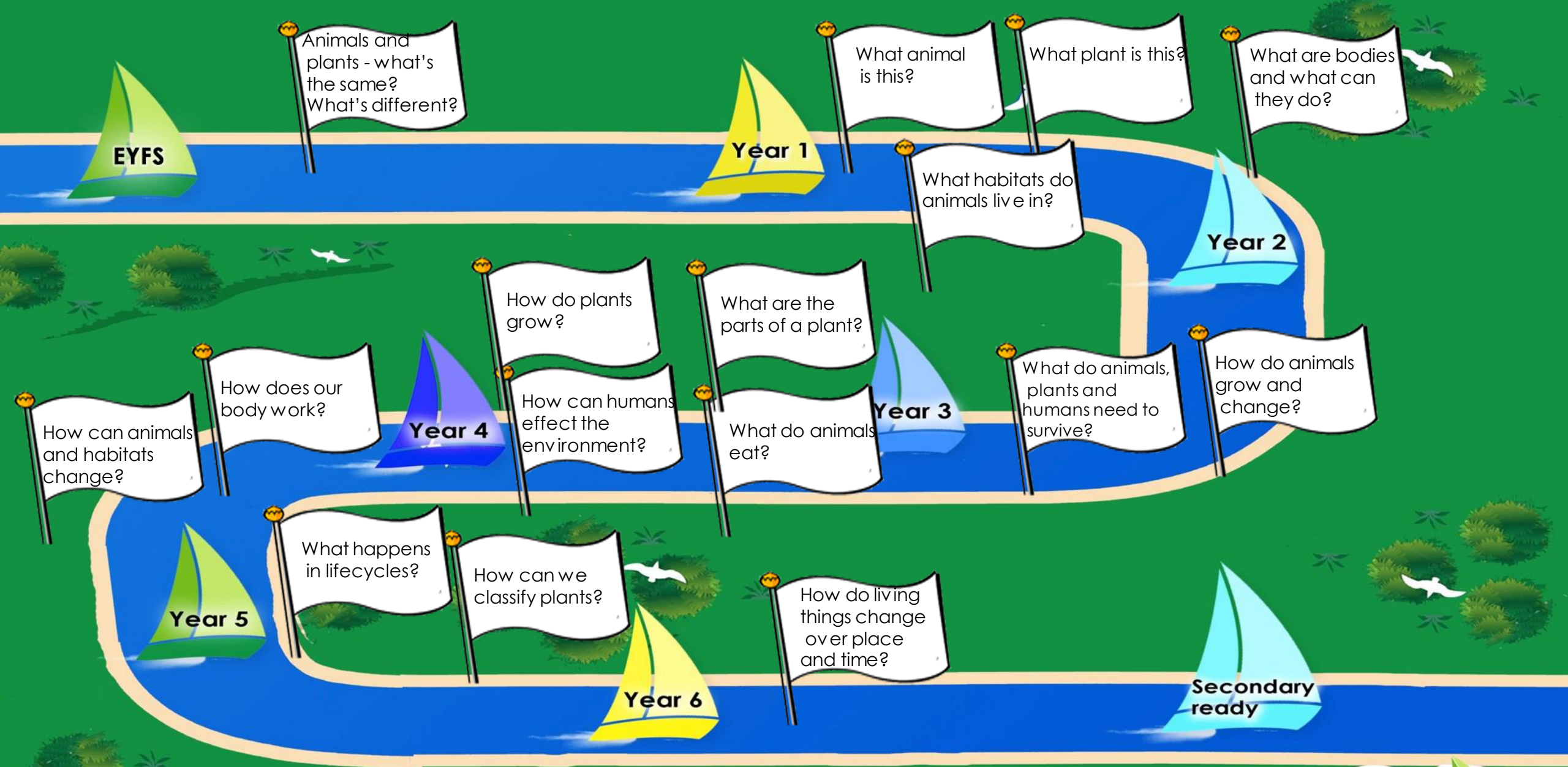
# Breadth of study

EYFS

- Compare and group together different types of rocks based on their appearance and physical properties
- Describe in simple terms how fossils are formed
- Recognise that soil is made from rocks and organic matter

Secondary ready

rocks



# Biology

# Breadth of study

EYFS

- Identifying, naming and describing plants
- Identify and describe function of parts of plants
- How do plants grow?
- Describe life processes in plants
- Group, classify and name plants in local environment

Secondary  
ready

# Plants



# Breadth of study

EYFS

- Name, identify and compare fish, amphibians, reptiles
- Observe that animals have offspring and grow into adults
- Describe the basic needs of animals
- Identify nutritional needs of animals
- Describe how living things are classified
- Recognise how living things have changed overtime and adapt to their environment
- Recognise that offspring is not identical to parents

Secondary ready

## Animals

# Breadth of study

EYFS

- Identify, name, draw and label parts of human body and link to the senses
- Identify basic needs of humans
- Describe the importance of exercise, healthy eating and hygiene
- Describe the function of the human digestive system and teeth

Secondary ready

## Humans

**Classification and Identification**

Learners identify features or tests that help them to distinguish between different things.

**Observing over time**

Learners observe or measure how something changes over time.

**Research**

Finding things out using a range of secondary sources of information.

**Pattern seeking**

Learners observe and record phenomena, carry out surveys or collect data from secondary sources and then identify relationships between the data in their findings. They are used when variables can't easily be controlled because of practical or ethical reasons.

**Fair and comparative testing**

Measure, observe. Change one thing. Keep all other variables the same. Repeat. Compare the effects.

Classification and Identification

Explore

Research

Observation over time

Pattern Seeking

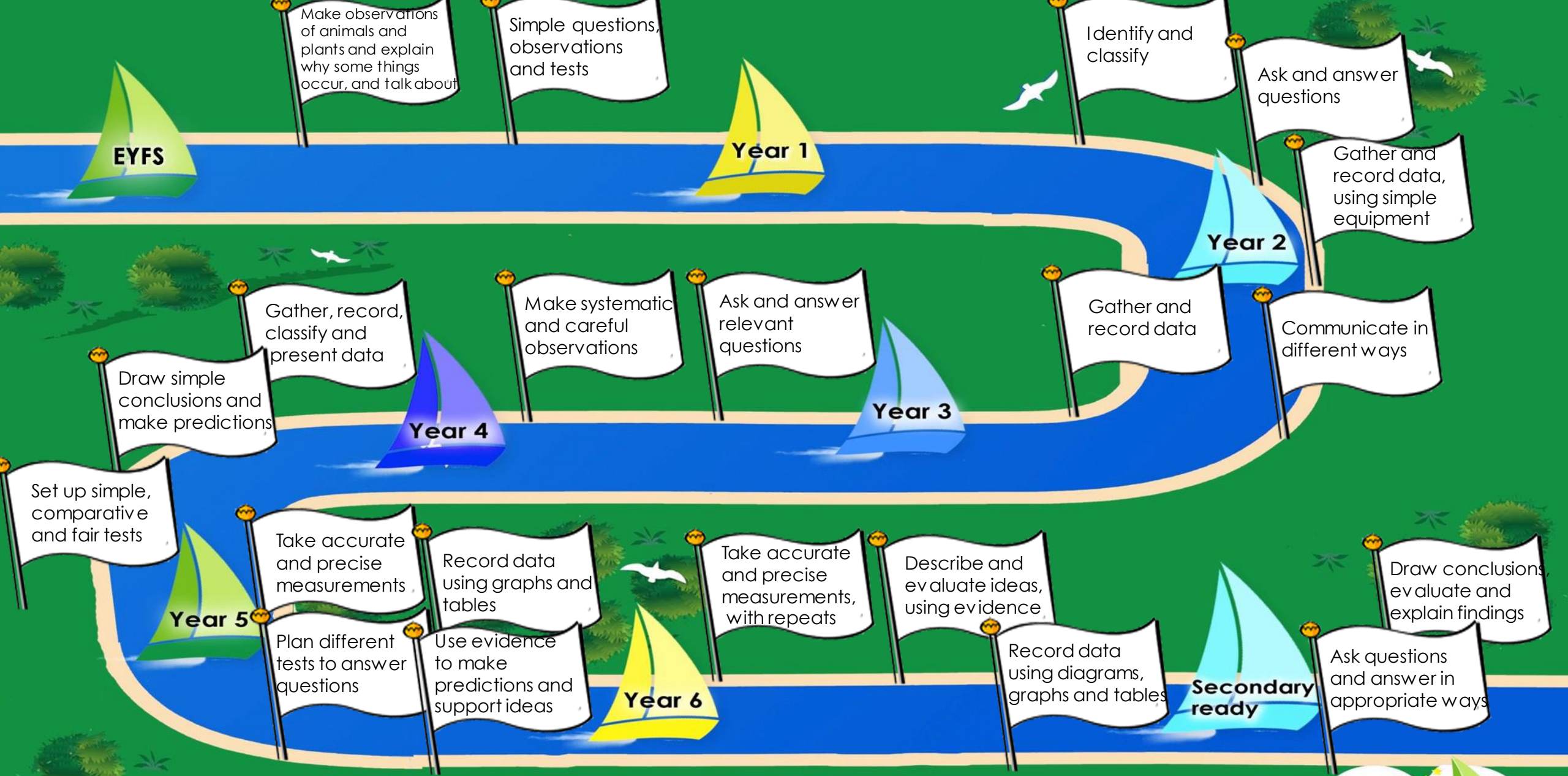
Fair testing

Secondary ready

**Scientific Enquiry**







**Skills**

# Key Concepts

EYFS

- Working Scientifically
- Understanding plants
- Understanding humans and animals
- Investigating living things
- Understanding evolution and inheritance
- Investigating materials
- Understanding light and seeing
- Investigating sound and hearing
- Understanding movement, forces and magnets
- Understanding electrical circuits
- Understand the earth's movement in space

Secondary  
ready

## Science

EYFS

Year 1 and 2

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

Year 3 and 4

Year 5 and 6

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments.

Secondary ready

**Working scientifically**