



Key Stage 1/2 Science Learning Journey

20

Use recognized symbols when representing a simple circuit in a diagram



How did WW2 change everyday life in London?

Recognize that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

Describe the way in which nutrients and water are transported within animals, including humans

Recognize the impact of diet, exercise, drugs and lifestyle on the way bodies function



Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood

Describe how living things are classified into broad groups according to common observable characteristics, based on similarities and differences, including microorganisms, plants and animals and give reasons why we classify animals and plants

Identify the effects of air and water resistance and friction, that act between moving surfaces and that some mechanisms, including levers, pulleys and gears allow a smaller force to have a greater effect

2025



Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

What effect did the growth of London have on Hendon?

Are rivers important for survival?

Use the idea that light travels in straight lines to explain why shadows have the same shape as the object who cast them

Identify that animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

What was life like in medieval times?

How high can I travel on Earth?

How do different countries and religions celebrate?

How are skills from the iron/stone age still used today?

Could you survive in the desert?

Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object



Are the Pyramids of Giza an important part of world history?

Can you travel the whole way around the world?

How does it feel to be part of a carnival?

How did the Romans change our world?

2024

When did Hendon thrive the most?

Use classifications to group, identify and name environments, producers, predators and prey and the associated food chains

Construct and interpret a variety of food chains, identifying producers, predators and prey

Would you like to live near the equator?

Observe that some materials change state when they are heated or cooled

Construct a simple series electrical circuit, identifying and name its basic parts - cells, wires, bulbs, switches and buzzers

Observe changes across the four seasons, observe and describe the weather associated with the seasons and day length

Would you like to live in Hendon during the Victorian times?

Compare and group together a variety of everyday materials on the basis of their simple physical properties

What is the difference between weather and climate?

Describe the simple physical properties of a variety of everyday materials

How was life different when Queen Victoria

Observe changes across the four seasons, observe and describe the weather associated with the seasons and day length

Where in the world are you?

Describe and compare the structure of a variety of common animal (fish, amphibians, reptiles, birds and mammals, including pets)

How has history changed the way we celebrate?

Identify and name a variety of common animals, including fish, amphibians, reptiles, birds and mammals

What makes a person significant?

Observe changes across the four seasons, observe and describe the weather associated with the seasons and day length

Why was the year 1666 important to London?

Recognize that the sun emits light and that light from the sun can be dangerous and ways we can protect against this

Human or Physical: what makes a good seaside?

Describe in simple terms how fossils are formed when living things are trapped in a rock

How have significant people changed our

Observe and describe how seeds and bulbs grow into mature plants

Explore and compare the differences between things that are living, dead and non-living

Find out and describe how plants need water, light and a suitable temperature to grow

Recognize that you need light in order to see and dark is the absence of light and notice light can be reflected

Identify and name different sources of food and describe the importance for humans of exercise, eating the right amount of different types of food and hygiene and that humans and some other animals have skeletons and muscles for support, protection and movement

Construct a simple series electrical circuit, identifying and name its basic parts - cells, wires, bulbs, switches and buzzers

Describe the simple functions of the basic parts of the digestive systems in humans

Identify how sounds are made, associating some of them with something vibrating and recognize that vibrations of sounds travel through a medium to the ear

Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Identify that a switch open and closes a circuit and identify whether or not a lamp will light in a simple circuit based on switch or battery position

Know that some materials will dissolve in a liquid to form a solution, and describe how to recover a substance from a solution

Compare and group together everyday materials on the basis of their properties, including hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism

Describe the differences of the life cycles of a mammal, amphibian, insect and bird

Identify that a switch open and closes a circuit and identify whether or not a lamp will light in a simple circuit based on switch or battery position

Use knowledge of solids, liquids and gases to decide how materials might be separated, including filtering, sieving and evaporating

Describe the movement of the Earth, and other planets, relative to the Sun in the solar system

Compare and group together everyday materials on the basis of their properties, including hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism

Describe the way in which nutrients and water are transported within animals, including humans

Recognize the impact of diet, exercise, drugs and lifestyle on the way bodies function

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How did WW2 change everyday life in London?

Use recognized symbols when representing a simple circuit in a diagram

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THE B?G -QUESTION-

QR code

Key Stage 1/2 Science Learning Journey



Key Stage 3/4

Science—Biology

Learning Journey

2026

2025

2024

2023

2022

2021

Understand the structure and function of gas exchange and the mechanisms of breathing, including lung volume measurements and the impact of exercise, asthma and smoking

Understand the structural adaptations of some unicellular organisms and understand the hierarchical organisation of multicellular organisms: from cells to tissues to organs to systems to organisms

Understand the structure and function of gas exchange and the mechanisms of breathing, including lung volume measurements and the impact of exercise, asthma and smoking

Understand the importance of bacteria in the human digestive system

Understand the effects of negative recreational decisions, including obesity, alcohol, drugs on behaviour, health and life processes

Understand the reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal

Understand that plants make carbohydrates in their leaves by photosynthesis and gaining mineral nutrients and water from the soil via their roots

Understand the reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal

Understand the functions of muscles and examples of antagonistic muscles

Understand the importance of bacteria, particularly in the human digestive system

Identify the similarities and differences between plant and animal cells and understand the role of diffusion in the movement of materials in and between cells and the role of the leaf stomata in gas exchange in plants

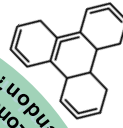
Understand the effects of negative recreational decisions, including obesity, alcohol, drugs on behaviour, health and life processes

Identify the structure and functions of the human skeleton to support, protect, move and making blood cells and understand the biomechanics of interaction between skeleton and muscles

Understand the content of a healthy human diet and why each is needed



Understand cells as the fundamental unit of living organisms and observe, interpret and record the cell structure using a light microscope and identify their functions



What effect did the growth of London have on Hendon?

Understand the tissues and organs of the human digestive system including adaptations to function and how the digestive system digests food

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Identify the similarities and differences between plant and animal cells and understand the role of diffusion in the movement of materials in and between cells and the role of the leaf stomata in gas exchange in plants

Know how to calculate the energy requirements in a healthy daily diet and the consequences of an imbalance e.g. obesity, starvation, deficiency diseases

Understand how humans reproduce, including the structure and function of the male and female reproductive systems



Principles of nervous coordination and control, relationship between the structure and function of the nervous system and a reflex arc; hormonal coordination and control in humans; hormone in human reproduction and contraception



Life processes depend on molecules whose structure is related to their function and the fundamental units of living organisms are cells, who are parts of tissues, organs and systems and the need for transport systems between multicellular organisms, including plants

Understand that plants make carbohydrates in their leaves by photosynthesis and gaining mineral nutrients and water from the soil via their roots

Evolution, inheritance and variation - the genome, impact on medicine, dominant and recessive genes, evidence for evolution, natural selection, modern biotechnology and the ethics

Living organisms, species and ecosystems interact with each other and show adaptations to their environment; the characteristics of a living organism are influenced by its genome and its environment

Ecosystems - life on Earth is dependent on photosynthesis is and make organic compounds and oxygen which are used as fuels in cellular respiration; continually cycling through the natural world and factors affecting the rate of photosynthesis; importance of biodiversity and positive and negative effect of humans



Could you survive in the desert?

Understand the structural adaptations of some unicellular organisms and understand the hierarchical organisation of multicellular organisms: from cells to tissues to organs to systems to organisms

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Understand the tissues and organs of the human digestive system including adaptations to function and how the digestive system digests food

Understand the functions of muscles and examples of antagonistic muscles

Understand the menstrual cycle, gametes, fertilisation, gestation and birth, including the effect of maternal lifestyle of the foetus through the placenta

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Understand the content of a healthy human diet and why each is needed

Life processes depend on molecules whose structure is related to their function and the fundamental units of living organisms are cells, who are parts of tissues, organs and systems and the need for transport systems between multicellular organisms, including plants

How has Hendon changed over the past 100 years?

Understand the structure and function of gas exchange and the mechanisms of breathing, including lung volume measurements and the impact of exercise, asthma and smoking

The relationship between health and disease - including sexually transmitted infections (HIV/AIDS), non-communicable diseases, bacteria, viruses and fungi as pathogens, defences and the process of discovering new medicines and the impact of lifestyle factors

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Human or Physical: what makes a good seaside?

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Understand the effects of negative recreational decisions, including obesity, alcohol, drugs on behaviour, health and life processes

Understanding cells are the basic unit of organisms, adaptations to cells, stem cells in animals and meristems in plants, enzymes, factors affecting the rate of enzymatic reactions and the importance of aerobic and anaerobic respiration



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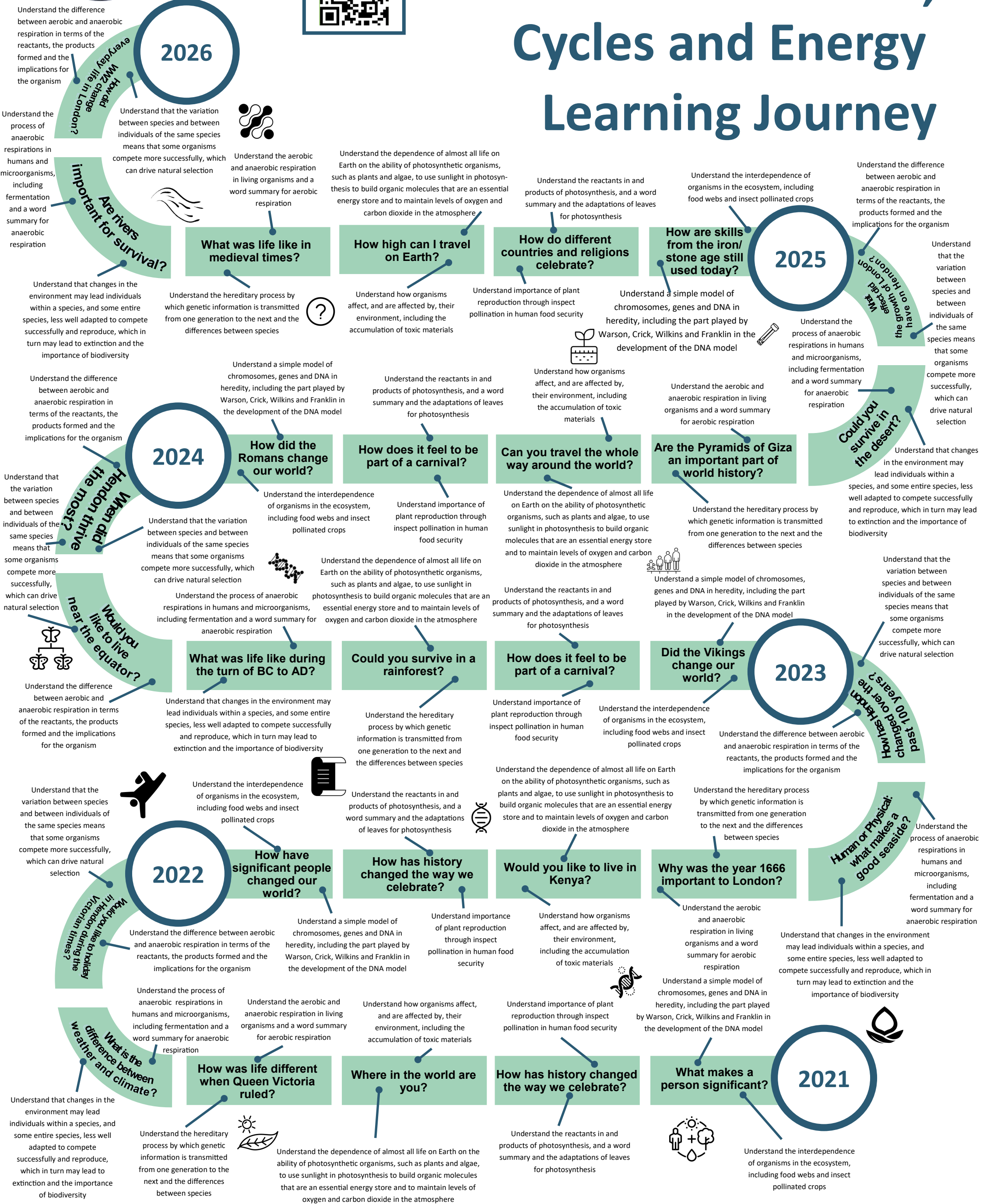
Understand cells as the fundamental unit of living organisms and observe, interpret and record the cell structure using a light microscope and identify their functions

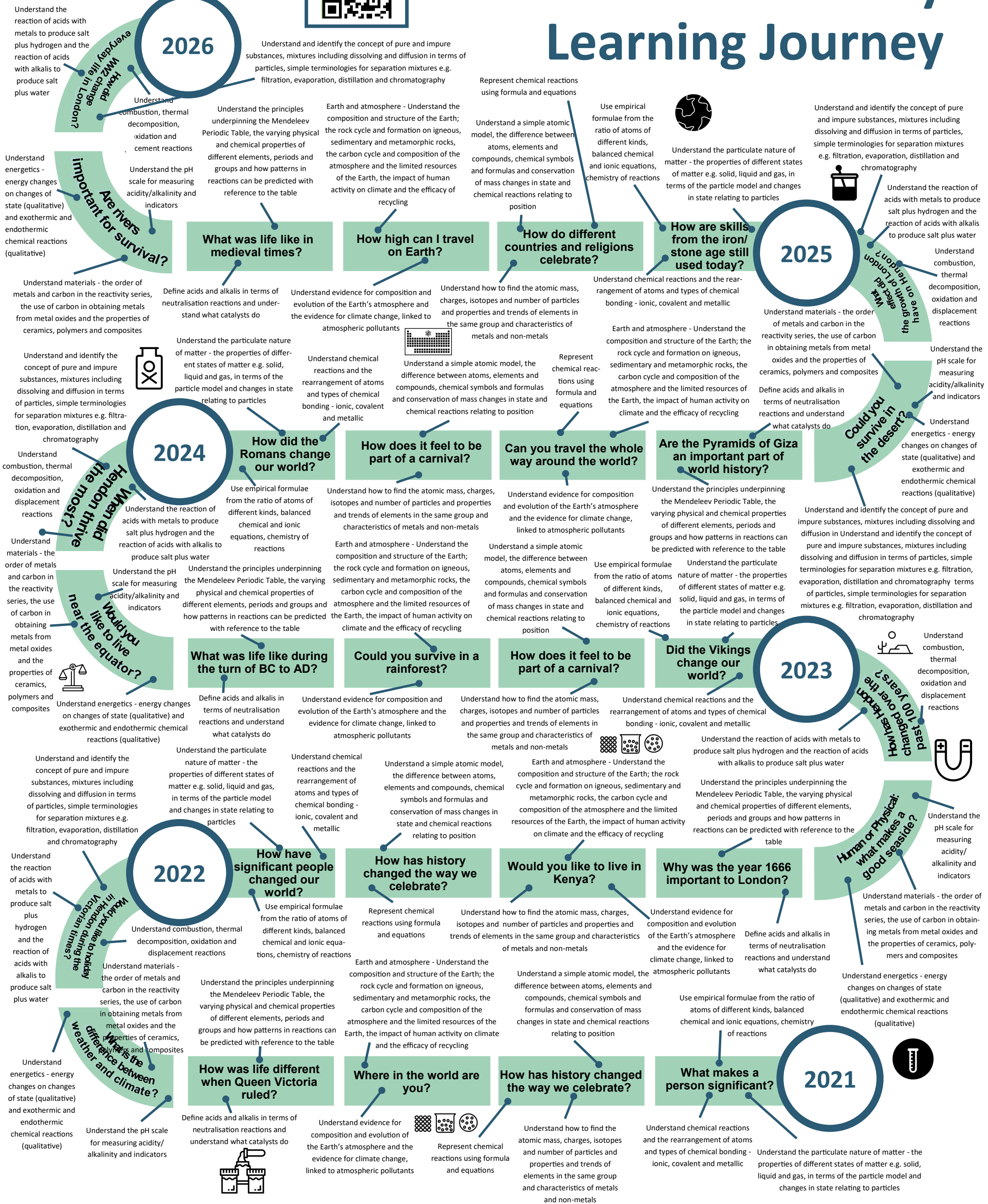


Key Stage 3/4

Science - Material, Cycles and Energy

Learning Journey







Key Stage 3/4

Science—Physics

Learning Journey

