

The Science Roadmap shows the learning journey for all year groups.

At KS3, half the students will be studying the first quadmester topic and the other half studying the second quadmester topic. This is to ensure there are enough resources to go around. This is repeated during quadmesters 3 and 4.

At KS4, classes are rotated between subject specialists and so will study all the topics, but not necessarily in the order of the road map. We do this to ensure students receive the highest quality, specialist teaching.

Science KS3

Year 7

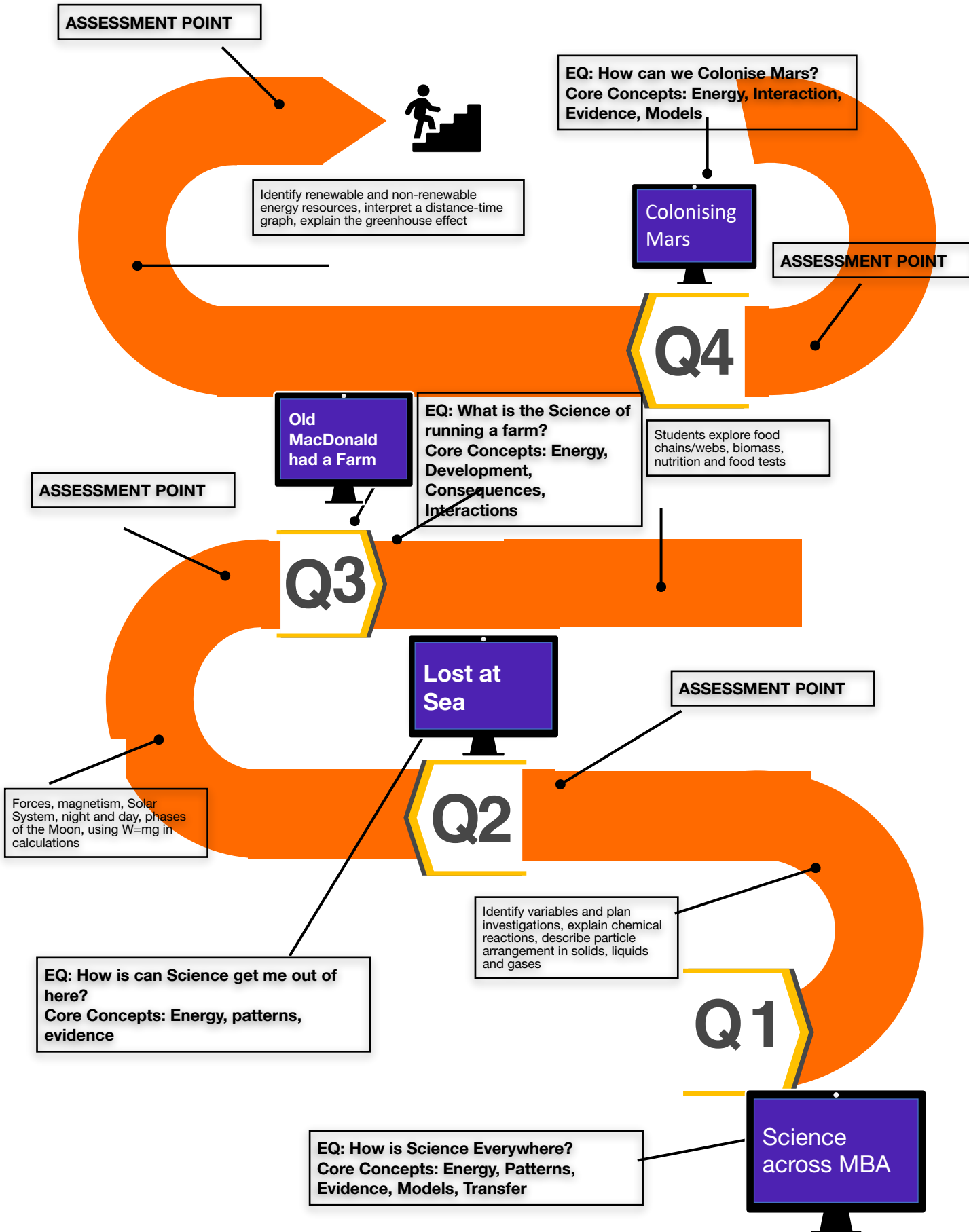
Year 8

Biology

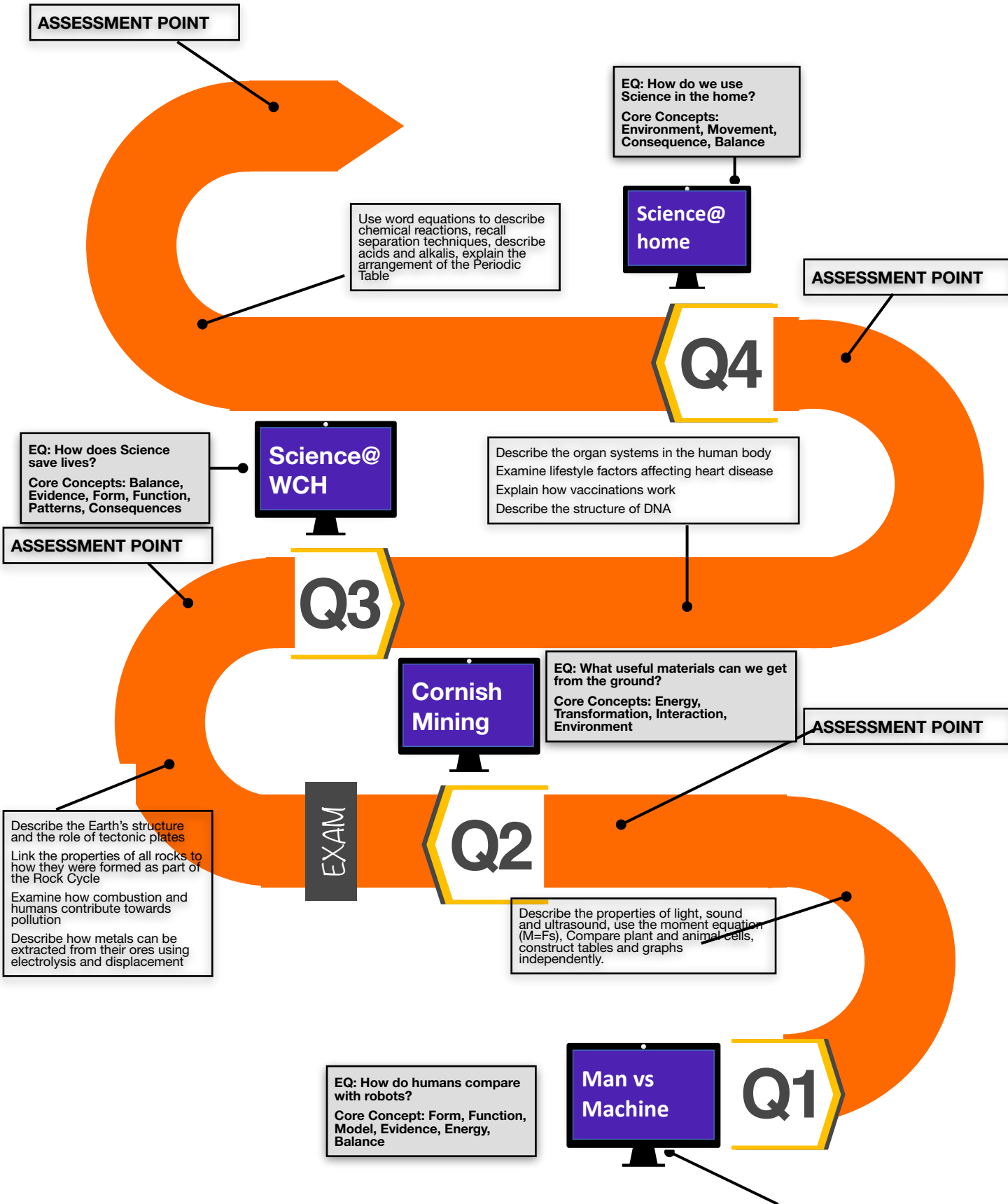
Chemistry

Physics

Year 7: What will I learn about in Science?



Year 8: What will I learn about in Science?



Science KS4

Biology

Chemistry

Physics

Year 9: What will I learn about in Science?

ASSESSMENT POINT

EQ: How have we evolved to survive?
Core Concepts: Consequences, Models, Environment, Interaction

BIOLOGY:
Infection and response
Inheritance

ASSESSMENT POINT

Recall how the body's fights disease and pathogens
Evaluate the process and ethics of drug trials
Describe how monoclonal antibodies are produced
Describe the structure of DNA
Explain Mitosis and Meiosis

Q4

EQ: How does Energy make things work?
Core Concepts: Balance, Evidence, Form, Function, Models

PHYSICS:
Energy
Particles

Describe Energy Stores and systems
Apply and rearrange a number of Physics equations
Describe and explain the properties of solids, liquids and gases
Complete the RPAs

Q3

ASSESSMENT POINT

CHEMISTRY:
Atomic structure
Bonding and properties of Matter

EQ: Why do atoms behave the way they do?
Core Concepts: Function, Evidence, Patterns

ASSESSMENT POINT

Explain the reactivity of Group 1 metals
Identify separation techniques
Understand the chemistry of ionic, covalent and metallic bonding
Recall the history of the Periodic Table

Q2

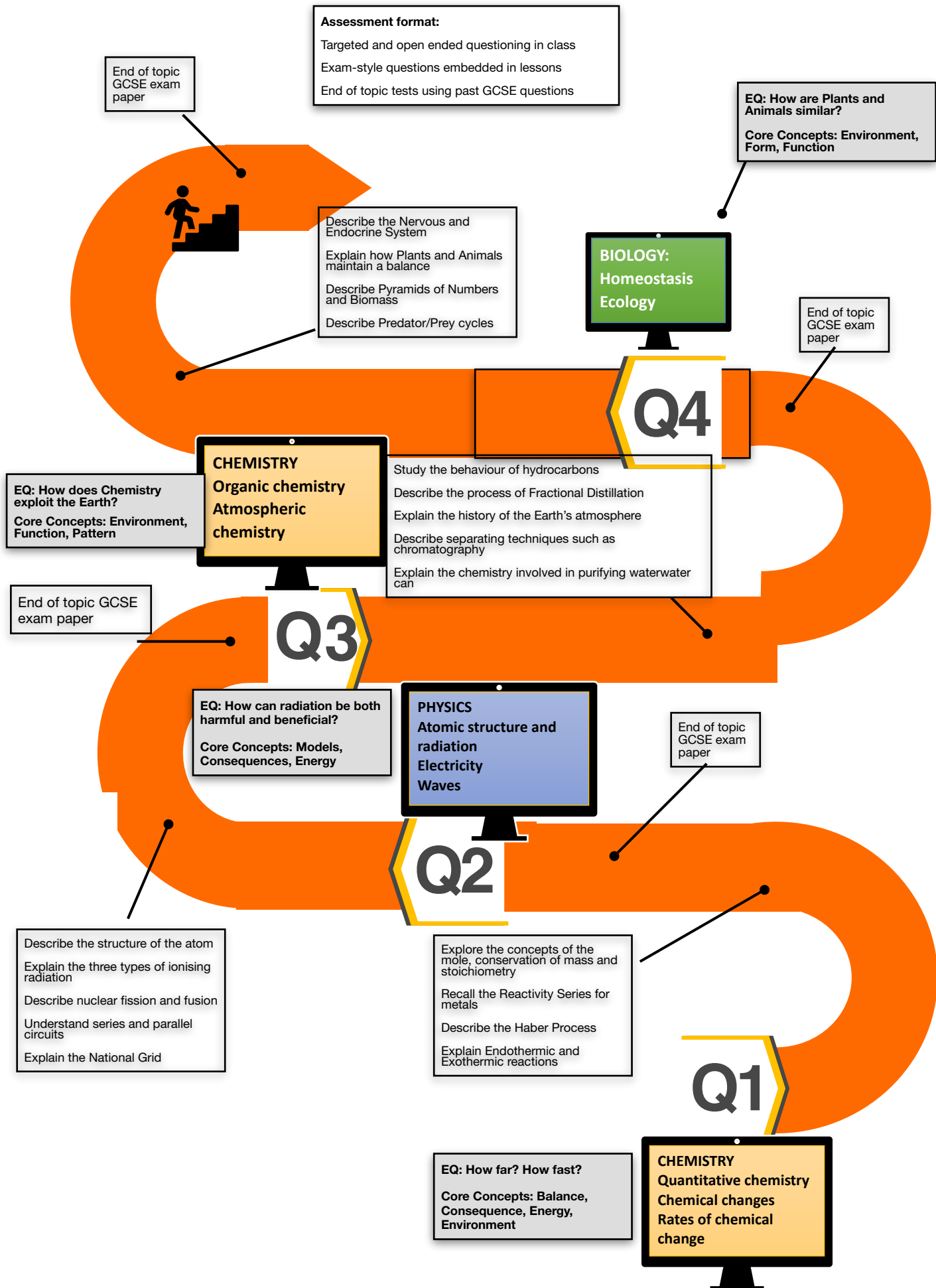
Compare plant and animal cells
Describe how both animals and plants are organised into cells, tissues, organs and organ systems
Relate knowledge of enzymes to the metabolic process

Q1

EQ: What are we really made of?
Core Concepts: Consequences, Function, Form, Interaction

BIOLOGY:
Cell Biology
Organisation

Year 10: What will I learn about in Science?



Year 11: What will I learn about in Science?

Revision strategies:
 Masterclasses, Targeted questioning, self-testing, Tassomai, summarising, Quizziz, flashcards, equation recall tests, 6-mark question tasks, maths skills tests, past papers, keyword association testing

Assessment format:
 Milestone Assessments
 Terminal GCSE exams

EQ: How can I improve my Physics performance?
Key Concepts: Metacognition, Linking, Interaction



Students rotate every two weeks to ensure subject specialist preparation for the final exam

REVISION FOR AQA PAPER 1/2

Q4

How can I improve my Chemistry Performance?
Key Concepts:

REVISION FOR AQA PAPER 2 (ALL SCIENCES)

Homeostasis and Response
 Inheritance, variation and evolution
 Ecology

Waves
 Forces
 Electromagnetism
 Space

Rate and Extent of Chemical Change
 Organic Chemistry
 Chemical Analysis
 Chemistry of the Atmosphere
 Using Resources

Q3

REVISION FOR AQA PAPER 1 (ALL SCIENCES)

EQ: How can improve my Biology performance?
Key Concepts: Metacognition,

Cell Biology
 Organisation
 Infection and Response
 Bioenergetics

Q2

Energy
 Particles
 Electricity
 Atomic Structure and Radiation

Atomic Structure and PT
 Bonding and Properties of Matter
 Quantitative Chemistry
 Chemical Changes
 Energy Changes

Use free body diagrams to demonstrate resultant forces
 Describe the shape of a velocity-time graph
 Explain the Motor Effect
 Describe the life cycle of stars
 Use SUVAT equations in calculations
 Explain why satellites stay in orbit
 Understand how electricity is generated using a generator.

Q1

EQ:
 Can you feel the force?
Concepts: Balance, Energy, patterns, models, consequences

Physics
 Forces
 Electromagnetism
 Space

BIOLOGY

CHEMISTRY

PHYSICS