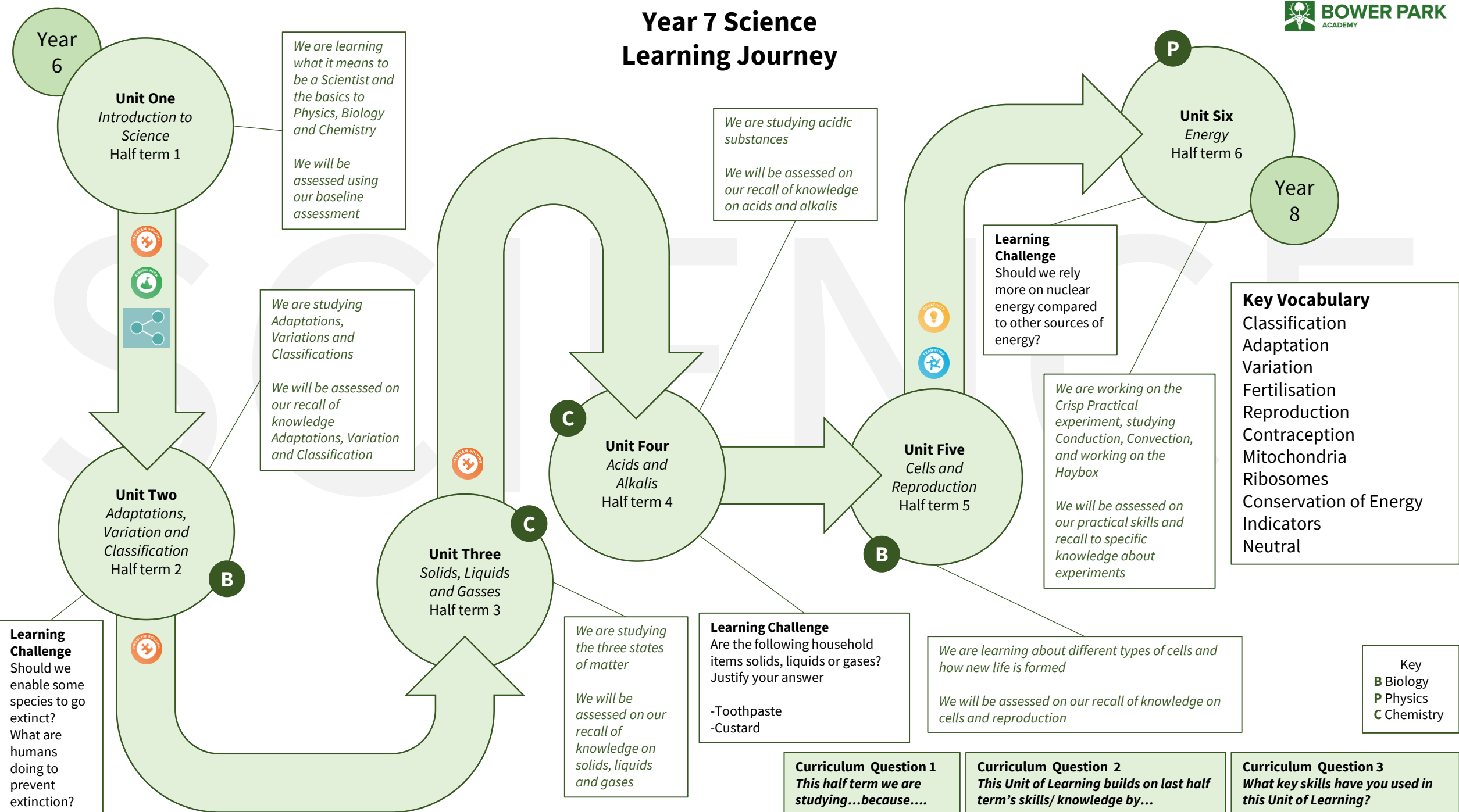


# Year 7 Science Learning Journey



Year 6

P

Year 8

**Unit One**  
Introduction to Science  
Half term 1

We are learning what it means to be a Scientist and the basics to Physics, Biology and Chemistry

We will be assessed using our baseline assessment

We are studying Adaptations, Variations and Classifications

We will be assessed on our recall of knowledge Adaptations, Variation and Classification

**Unit Two**  
Adaptations, Variation and Classification  
Half term 2

**Learning Challenge**  
Should we enable some species to go extinct? What are humans doing to prevent extinction?

**Unit Three**  
Solids, Liquids and Gases  
Half term 3

We are studying the three states of matter

We will be assessed on our recall of knowledge on solids, liquids and gases

**Unit Four**  
Acids and Alkalis  
Half term 4

We are studying acidic substances

We will be assessed on our recall of knowledge on acids and alkalis

**Unit Five**  
Cells and Reproduction  
Half term 5

**Learning Challenge**  
Are the following household items solids, liquids or gases? Justify your answer

- Toothpaste
- Custard

**Learning Challenge**  
Should we rely more on nuclear energy compared to other sources of energy?

We are working on the Crisp Practical experiment, studying Conduction, Convection, and working on the Haybox

We will be assessed on our practical skills and recall to specific knowledge about experiments

We are learning about different types of cells and how new life is formed

We will be assessed on our recall of knowledge on cells and reproduction

**Unit Six**  
Energy  
Half term 6

**Key Vocabulary**  
Classification  
Adaptation  
Variation  
Fertilisation  
Reproduction  
Contraception  
Mitochondria  
Ribosomes  
Conservation of Energy  
Indicators  
Neutral

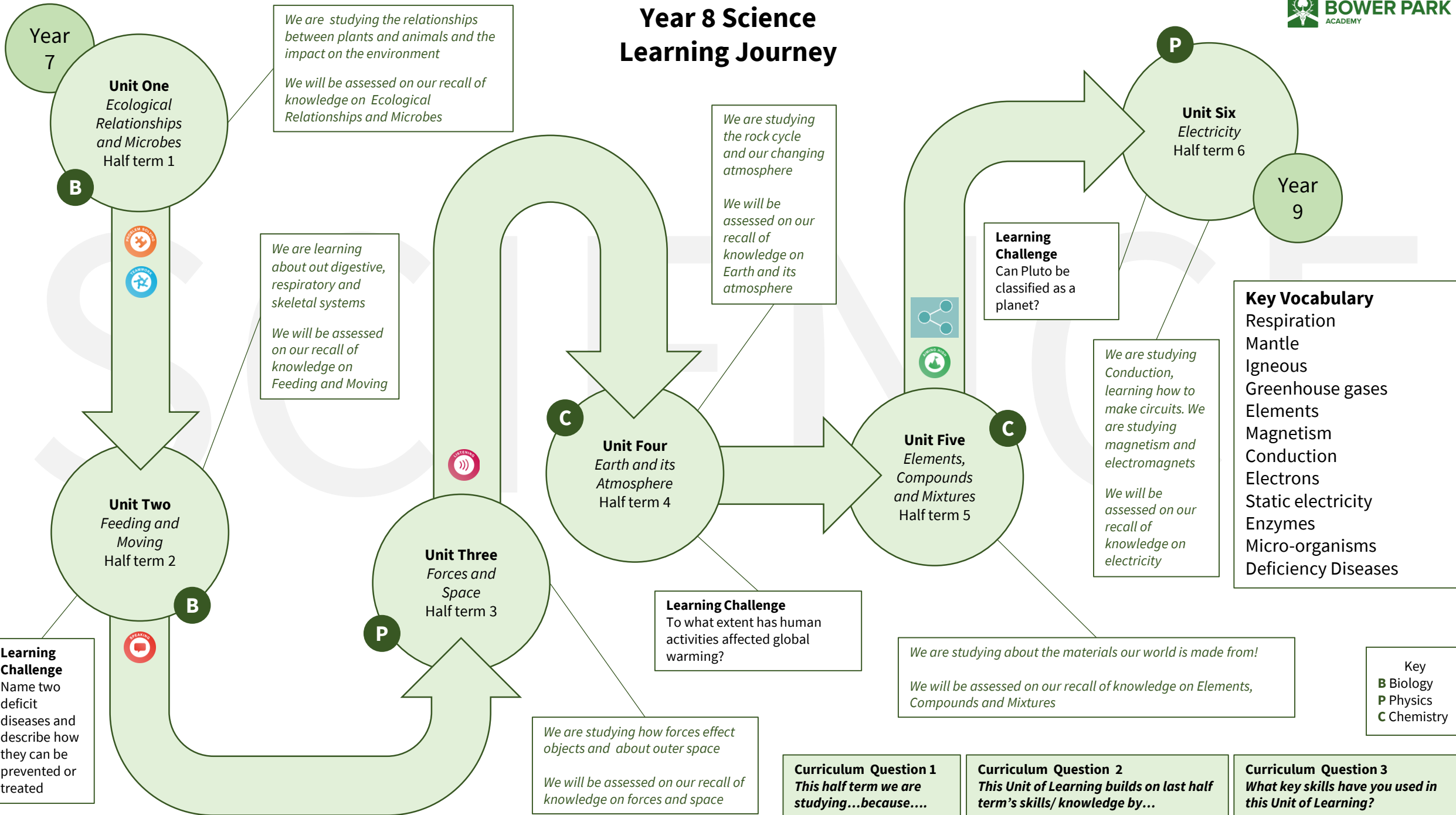
Key  
B Biology  
P Physics  
C Chemistry

**Curriculum Question 1**  
This half term we are studying...because....

**Curriculum Question 2**  
This Unit of Learning builds on last half term's skills/ knowledge by...

**Curriculum Question 3**  
What key skills have you used in this Unit of Learning?

# Year 8 Science Learning Journey



**Year 7**

**Unit One**  
Ecological Relationships and Microbes  
Half term 1

**B**

We are studying the relationships between plants and animals and the impact on the environment

We will be assessed on our recall of knowledge on Ecological Relationships and Microbes

We are learning about our digestive, respiratory and skeletal systems

We will be assessed on our recall of knowledge on Feeding and Moving

**Unit Two**  
Feeding and Moving  
Half term 2

**B**

**Learning Challenge**  
Name two deficit diseases and describe how they can be prevented or treated

**Unit Three**  
Forces and Space  
Half term 3

**P**

We are studying how forces effect objects and about outer space

We will be assessed on our recall of knowledge on forces and space

**Unit Four**  
Earth and its Atmosphere  
Half term 4

**C**

We are studying the rock cycle and our changing atmosphere

We will be assessed on our recall of knowledge on Earth and its atmosphere

**Learning Challenge**  
To what extent has human activities affected global warming?

**Unit Five**  
Elements, Compounds and Mixtures  
Half term 5

**C**

**Learning Challenge**  
Can Pluto be classified as a planet?

We are studying about the materials our world is made from!

We will be assessed on our recall of knowledge on Elements, Compounds and Mixtures

We are studying Conduction, learning how to make circuits. We are studying magnetism and electromagnets

We will be assessed on our recall of knowledge on electricity

**Unit Six**  
Electricity  
Half term 6

**P**

**Year 9**

- Key Vocabulary**
- Respiration
  - Mantle
  - Igneous
  - Greenhouse gases
  - Elements
  - Magnetism
  - Conduction
  - Electrons
  - Static electricity
  - Enzymes
  - Micro-organisms
  - Deficiency Diseases

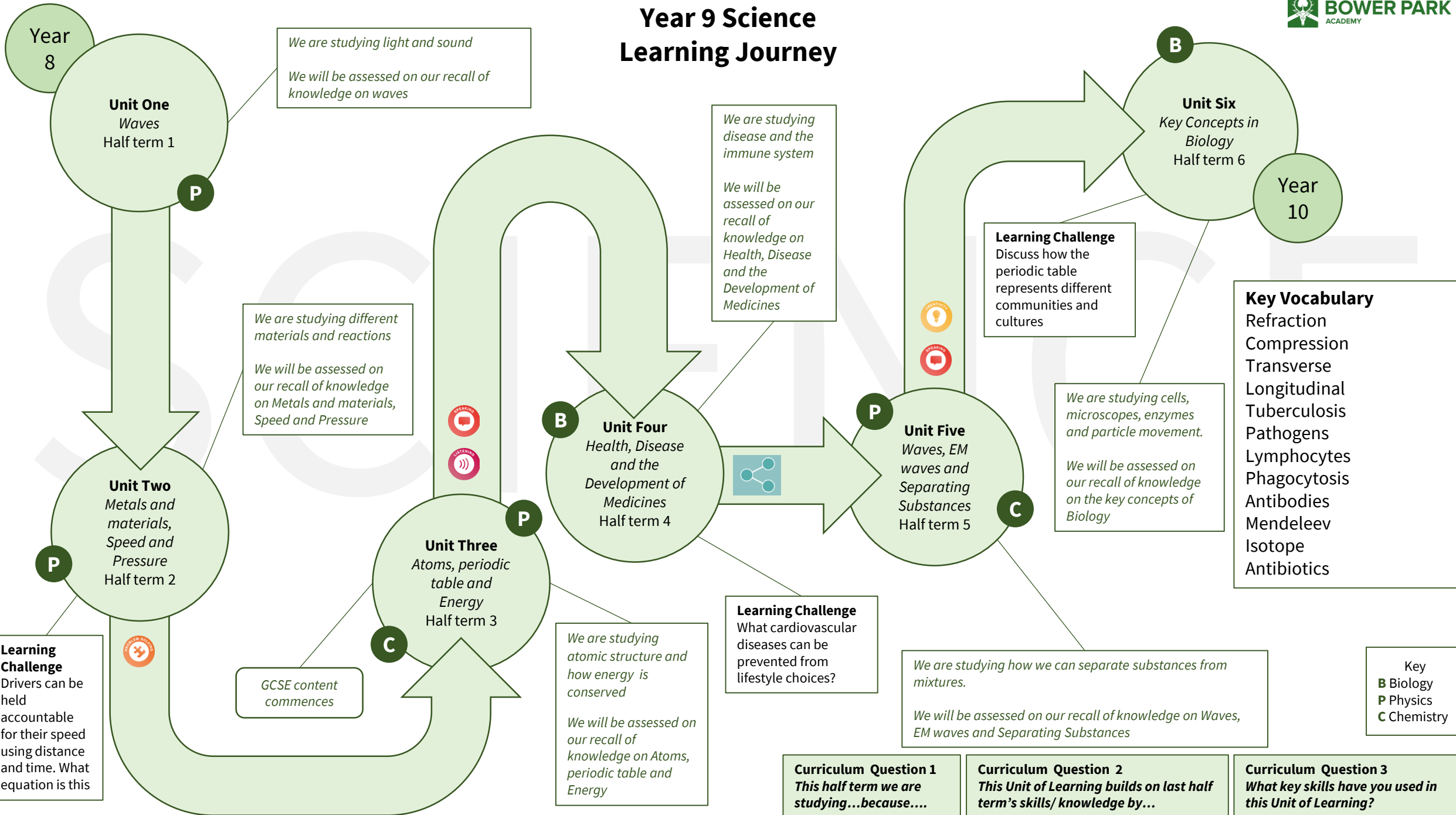
**Key**  
**B** Biology  
**P** Physics  
**C** Chemistry

**Curriculum Question 1**  
This half term we are studying...because....

**Curriculum Question 2**  
This Unit of Learning builds on last half term's skills/ knowledge by...

**Curriculum Question 3**  
What key skills have you used in this Unit of Learning?

# Year 9 Science Learning Journey



**Year 8**

**Unit One**  
Waves  
Half term 1

**P**

We are studying light and sound

We will be assessed on our recall of knowledge on waves

We are studying different materials and reactions

We will be assessed on our recall of knowledge on Metals and materials, Speed and Pressure

**P**

**Unit Two**  
Metals and materials, Speed and Pressure  
Half term 2

**Learning Challenge**  
Drivers can be held accountable for their speed using distance and time. What equation is this

GCSE content commences

**C**

**Unit Three**  
Atoms, periodic table and Energy  
Half term 3

We are studying atomic structure and how energy is conserved

We will be assessed on our recall of knowledge on Atoms, periodic table and Energy

**B**

**Unit Four**  
Health, Disease and the Development of Medicines  
Half term 4

We are studying disease and the immune system

We will be assessed on our recall of knowledge on Health, Disease and the Development of Medicines

**Learning Challenge**  
What cardiovascular diseases can be prevented from lifestyle choices?

**P**

**Unit Five**  
Waves, EM waves and Separating Substances  
Half term 5

We are studying how we can separate substances from mixtures.

We will be assessed on our recall of knowledge on Waves, EM waves and Separating Substances

**Curriculum Question 1**  
This half term we are studying...because....

**Curriculum Question 2**  
This Unit of Learning builds on last half term's skills/ knowledge by...

**Curriculum Question 3**  
What key skills have you used in this Unit of Learning?

**B**

**Unit Six**  
Key Concepts in Biology  
Half term 6

**Year 10**

**Learning Challenge**  
Discuss how the periodic table represents different communities and cultures

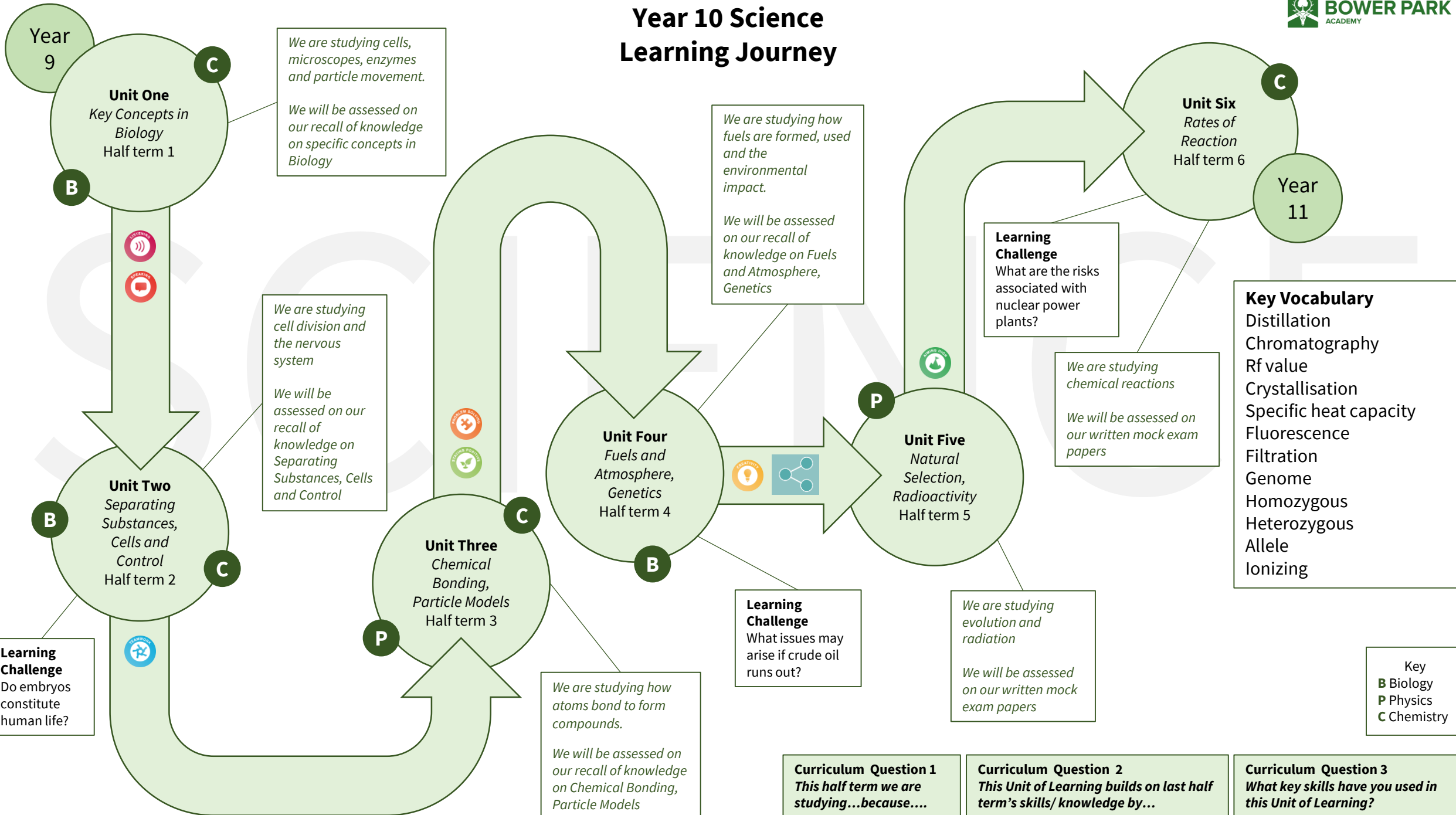
We are studying cells, microscopes, enzymes and particle movement.

We will be assessed on our recall of knowledge on the key concepts of Biology

**Key Vocabulary**  
Refraction  
Compression  
Transverse  
Longitudinal  
Tuberculosis  
Pathogens  
Lymphocytes  
Phagocytosis  
Antibodies  
Mendeleev  
Isotope  
Antibiotics

**Key**  
**B** Biology  
**P** Physics  
**C** Chemistry

# Year 10 Science Learning Journey



**Year 9**

**Unit One**  
Key Concepts in Biology  
Half term 1

**C**

We are studying cells, microscopes, enzymes and particle movement.

We will be assessed on our recall of knowledge on specific concepts in Biology

**B**

**Unit Two**  
Separating Substances, Cells and Control  
Half term 2

**C**

We are studying cell division and the nervous system

We will be assessed on our recall of knowledge on Separating Substances, Cells and Control

**B**

**Unit Three**  
Chemical Bonding, Particle Models  
Half term 3

**C**

We are studying how atoms bond to form compounds.

We will be assessed on our recall of knowledge on Chemical Bonding, Particle Models

**B**

**Unit Four**  
Fuels and Atmosphere, Genetics  
Half term 4

**C**

We are studying how fuels are formed, used and the environmental impact.

We will be assessed on our recall of knowledge on Fuels and Atmosphere, Genetics

**B**

**Unit Five**  
Natural Selection, Radioactivity  
Half term 5

**C**

**Learning Challenge**  
What issues may arise if crude oil runs out?

We are studying evolution and radiation

We will be assessed on our written mock exam papers

**B**

**Unit Six**  
Rates of Reaction  
Half term 6

**C**

**Learning Challenge**  
What are the risks associated with nuclear power plants?

We are studying chemical reactions

We will be assessed on our written mock exam papers

**Year 11**

- Key Vocabulary**
- Distillation
  - Chromatography
  - Rf value
  - Crystallisation
  - Specific heat capacity
  - Fluorescence
  - Filtration
  - Genome
  - Homozygous
  - Heterozygous
  - Allele
  - Ionizing

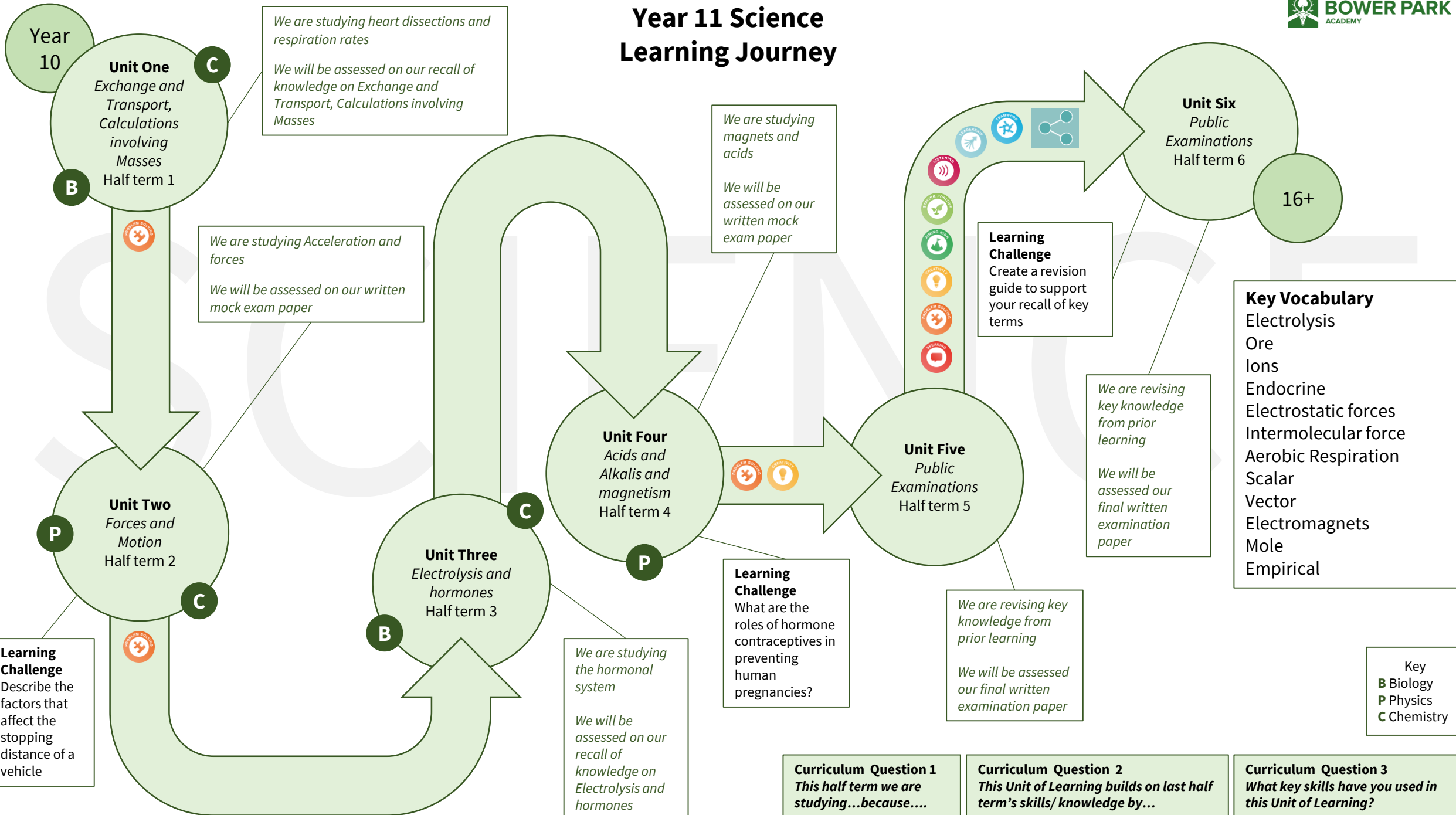
**Key**  
**B** Biology  
**P** Physics  
**C** Chemistry

**Curriculum Question 1**  
This half term we are studying...because....

**Curriculum Question 2**  
This Unit of Learning builds on last half term's skills/ knowledge by...

**Curriculum Question 3**  
What key skills have you used in this Unit of Learning?

# Year 11 Science Learning Journey



**Year 10**

**Unit One**  
Exchange and Transport, Calculations involving Masses  
Half term 1

**C**

We are studying heart dissections and respiration rates

We will be assessed on our recall of knowledge on Exchange and Transport, Calculations involving Masses

We are studying Acceleration and forces

We will be assessed on our written mock exam paper

**Unit Two**  
Forces and Motion  
Half term 2

**P**

**C**

**Learning Challenge**  
Describe the factors that affect the stopping distance of a vehicle

**Unit Three**  
Electrolysis and hormones  
Half term 3

**B**

**C**

We are studying the hormonal system

We will be assessed on our recall of knowledge on Electrolysis and hormones

**Unit Four**  
Acids and Alkalis and magnetism  
Half term 4

**P**

We are studying magnets and acids

We will be assessed on our written mock exam paper

**Learning Challenge**  
What are the roles of hormone contraceptives in preventing human pregnancies?

**Unit Five**  
Public Examinations  
Half term 5

We are revising key knowledge from prior learning

We will be assessed our final written examination paper

**Learning Challenge**  
Create a revision guide to support your recall of key terms

We are revising key knowledge from prior learning

We will be assessed our final written examination paper

**Unit Six**  
Public Examinations  
Half term 6

**16+**

**Key Vocabulary**

Electrolysis  
Ore  
Ions  
Endocrine  
Electrostatic forces  
Intermolecular force  
Aerobic Respiration  
Scalar  
Vector  
Electromagnets  
Mole  
Empirical

**Key**  
**B** Biology  
**P** Physics  
**C** Chemistry

**Curriculum Question 1**  
This half term we are studying...because....

**Curriculum Question 2**  
This Unit of Learning builds on last half term's skills/ knowledge by...

**Curriculum Question 3**  
What key skills have you used in this Unit of Learning?