

Looking at the structure of compounds and how they are held together by ionic and covalent

bonds.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

Link to Mathematics – Drawing graphs, analysing and processing data

The structure of the atom from ancient geeks to

our current model.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Describing, analysing, explaining, planning.

Science-KS3

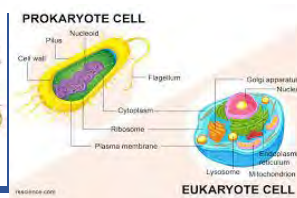


INSPIRE
BELIEVE
ACHIEVE

Key	
■	Good character values
■	Cross curricular links
■	Assessment points
■	Subject specific skills
■	CEIAG careers
<u> </u>	Deeper development of earlier skills / knowledge

Bonding structure and the particle model

Atomic structure



Fundamental biology

Living together

Unravelling the universe

Separating substances

Exploring the environment

Identifying substances

Creating connections

Science in action

Types of energy and a look at the future use of resources in generating electricity.

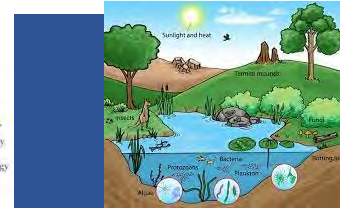
Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining,.

Link to Mathematics – processing data and drawing graphs

Generating our own energy



The biology underpinning the next steps towards GCSE

Resilience, perseverance and collaboration

QMF-assessed practical skills, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

Link to Mathematics – Ideas of scales, accurate measurements and rearranging formulae

How to identify when chemical reaction occur and name the products of reactions

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, explaining

Link to Mathematics – processing data and drawing graphs

How energy is transferred by waves, the differences between longitudinal and transverse waves.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

Link to Music – different types of sound and their sound waves

Who is eating who and a look at the different ecosystems which exist on our planet.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

Link to geography – the importance of maintaining biodiversity

Looking at basic chemical reactions such as neutralisation. How to identify that a reaction has occurred by temperature change or formation of a gas.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

Link to Mathematics – processing data and drawing graphs

An anatomical look at the key organs involved in reproduction. How this fits into a cycle of developing life.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining,

Link to RE – ethical consideration of using genetic technologies

Healthy humans



Real reactions



Health and its importance. The world or microorganisms and how we interact with them

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

Link to PE –Evaluating the impact of life style choices on health. Link to Mathematics – processing data and drawing graphs

From moons to stars and galaxies. How the universe is put together and its cycles.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining

Link to Mathematics – calculations of distance and scale

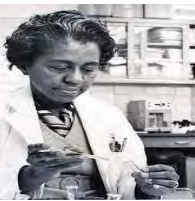
How to structure a formal investigation

Resilience, perseverance and collaboration

QMF-assessed practical skills, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

8



Significant scientists



Atoms as basic building blocks to compounds and their organisation in the periodic table

Resilience, perseverance and collaboration

QMF-assessed practical skills, QMS-End of topic test

Evaluating, describing, analysing, explaining

Mathematics – processing data and drawing graphs

Important scientists through out history their lives and their discoveries

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining,

Link to history – important historical figures and the barriers they have overcome to be successful

The different methods used to separate mixtures. .

Resilience, perseverance and collaboration, group work

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining,

Basic structure and function of sub cellular organelles. An introduction to using microscopes to investigate an unseen world

Resilience, perseverance and collaboration

QMF-assessed practical skills, QMS-End of topic test

Evaluating, describing, analysing, explaining,

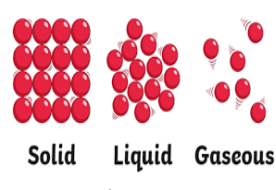
Link to PE – the movement of the body (muscular skeletal systems) and maintaining a healthy body

Link to Mathematics – processing data and drawing graphs

Being human



Everything elemental



Building the human body from specialised cells to tissues, organs and organ systems.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining,

The states of matter and their properties. Looking how to alter between the states.

Resilience, perseverance and collaboration

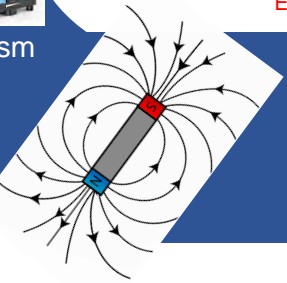
QMF-Extended writing mini essay, QMS-End of topic test

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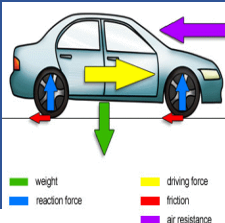
Mathematics – processing data and drawing graphs



Magnetism



Fundamental forces



I am a scientist



7

Interaction of poles on a basic magnet and suitable materials to make a magnet from.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining,

Forces effect the world around us by changing their speed or direction. They can do this as a contact or non contact force. Looking at the forces interacting on objects.

Resilience, perseverance and collaboration

QMF-Extended writing mini essay, QMS-End of topic test

Evaluating, describing, analysing, explaining

Linking to DT – how forces effect different material, and the movement of objects

Basic lab safety and skills. Identifying equipment and hazard symbols.

Resilience, perseverance and collaboration

QMF-assessed practical skills, QMS-End of topic test

Evaluating, describing, analysing, explaining, planning.

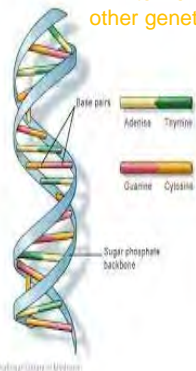
Link to DT-the importance of carrying out risk assessments and reducing potential risk during practical's . Mathematics – processing data and drawing graphs

Understanding why we are the way we are, factors we inherit and the influence of our environment.

Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining
Link to Re – discussing the ethical consideration of using genetic screening and other genetic technologies.

Properties of transverse and longitudinal waves. Investigating the electromagnetic spectrum its properties and uses
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.
Link to Music – different types of sound and their sound waves

B2-Inheritance, variations and evolution



Properties of alkanes and alkenes, how to obtain them and utilise them in polymers
Resilience, perseverance and collaboration
QMF-assessed practical skills, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.
Link to Mathematics – Drawing graphs, analysing and processing data, rearranging formulae



P2-Waves



P2-Magnetism and electromagnetism

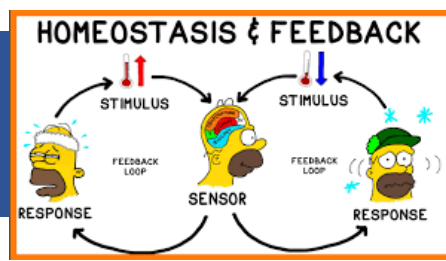


C2-Organic chemistry and analysis

The interaction of magnets and their properties, the creation of an electromagnet and investigating the factors which affect this
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.
Link to Mathematics – Drawing graphs, analysing and processing data, rearranging formulae

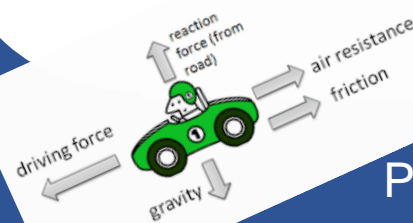
Maintaining the balance in the human body using the nervous system and the endocrine system
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.
Link to PE – Nerves and reaction times

B2-Homeostasis and response



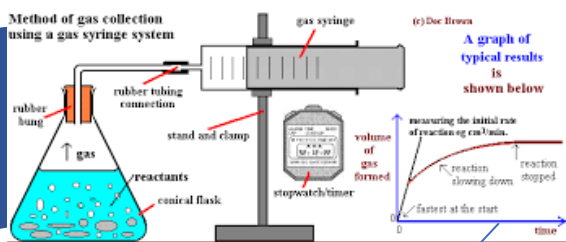
The damage we are doing to our planet in various ways and how this will eventually affect us
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.
Link to geography – how human impact affects the environment and the importance of maintaining biodiversity

P2-Forces



Deeper look into Newton's laws of motion and the forces that govern our existence. Calculating real life problems such as impact in an accident or the elastic properties of materials.
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.
Link to Mathematics – Drawing graphs, analysing and processing data, rearranging formulae

C2-Energy changes and rate of reaction



Factors affecting the rate of a chemical reaction such as concentration, temperature and pressure and how to measure them
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.
Link to Mathematics – Drawing graphs, analysing and processing data



B2-Ecology

B1-Infection and response



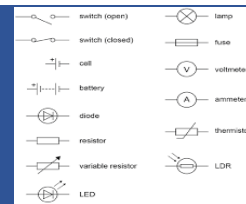
B1-Organisation



Investigating the organ systems in the human body such as respiratory and circulatory systems
QMF-Extended writing mini essay, QMS-End of topic test
Resilience, perseverance and collaboration
Evaluating, describing, analysing, explaining, planning.
Link to PE – the anatomy and structure of the heart and lungs

Covering the law of conservation of energy looking at energy transfers and changes in a closed system
Resilience, perseverance and collaboration
QMF-assessed practical skills, QMS-End of topic test
Evaluating, describing, analysing, explaining.
Link to Mathematics – Drawing graphs, analysing and processing data
Link to geography – evaluating the effect of different energy resources used to generate electricity

P1-Energy



P1-Electricity

Learning how circuits are built using various components and looking at how the components interact with electricity, using electrical calculations.
Resilience, perseverance and collaboration
QMF-assessed practical skills, QMS-End of topic test
Evaluating, describing, analysing, explaining
Link to Mathematics – Drawing graphs, analysing and processing data, rearranging formulae

C1-Quantitative chemistry



C1-Chemical changes



The dynamics of a chemical reaction such as yield and equilibrium
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining.
Link to Mathematics - Analysing and processing data

Topic examines the indicators of a chemical reaction and the products of common chemical reactions such as acids and metals
Resilience, perseverance and collaboration
QMF-Extended writing mini essay, QMS-End of topic test
Evaluating, describing, analysing, explaining, planning.