

YR7

Y7 UNIT 1
Personal safety

How can you stay safe at home and at school?
What safety precautions are needed online?

Y7 UNIT 2
The particle model

How are particles arranged in different substances?
How do chemical and physical changes differ?

Y7 UNIT 3
Changing shape

How are forces measured?
How can we measure extension of a spring?

Y7 UNIT 7
Astrophysics

What objects are found in the solar system?
How does weight change on other planets?

Y7 UNIT 6
The Nervous System

How does the nervous system control our body?
What factors affect how the nervous system works?

Y7 UNIT 5
The Atom

What are the differences between elements and compounds?
How are atoms represented in chemical reactions?

Y7 UNIT 4
Animal cells

What can be found in an animal cell?
How does the human body move around?

Y7 UNIT 8
Changes of state

What happens to particles during physical changes?
How do particles get from one area to another?

Y7 UNIT 9
Gas exchange

How are substances exchanged in humans and in fish?
What substances are pollutants and why are they a problem?

Y7 UNIT 10
Types of reactions

What is made when different fuels combust?
What happens during oxidation and displacement reactions?

Y7 UNIT 11
The cycles

What are the differences between different types of rock?
What is the water cycle and what happens if you can't access water?

Y7 UNIT 13
Healthy living

What causes disease and how are they caught?
What other factors contribute to a healthy lifestyle?

Y7 UNIT 12
Human reproduction

How do we form healthy relationships?
How do the human reproductive systems work?

Y7 UNIT 14
Purity

What does it mean when a substance is pure or impure?
What techniques are there to separate mixtures?

Y7 UNIT 15
Politics

What is parliament and how does it work?
How are elections used to decide governments?

Y7 UNIT 16
The space race

How have solar system models changed over time?
What objects orbit Earth and how do they monitor space?

YR8

Y8 UNIT 1
The pH scale

What are acids and alkalis and how are they measured?
What reactions to acids take part in?

Y8 UNIT 2
The digestive system

What nutrients does the human body need?
How can we test for the different types of food?

Y8 UNIT 3
Our atmosphere

What is Earth's atmosphere made from?
How are humans causing climate change and global warming?

Y8 UNIT 6
Heating and cooling

What are energy stores and how does energy transfer?
How can we prevent wasted energy in order to save money?

Y8 UNIT 5
Principles of energy

What are energy stores and how does energy transfer?
How can we prevent wasted energy in order to save money?

Y8 UNIT 4
Human health

What factors affect human health?
How can various health conditions be treated?

Y8 UNIT 7
Cellular respiration

What is respiration and how does it release energy?
How can different types of respiration be useful?

Y8 UNIT 8
Money and media

How is money earned and spent?
Why do you have to be careful with trusting different media sources?

Y8 UNIT 9
Energy in the home

What different methods of generating energy are there?
How is energy used and paid for?

Y8 UNIT 12
Mechanical waves

What causes disease and how are they caught?
What other factors contribute to a healthy lifestyle?

Y8 UNIT 11
Electrical circuits

What are the differences between series and parallel circuits?
How do we use ammeters and voltmeters to calculate resistance in a wire?

Y8 UNIT 10
Plant cells

What is contained within a plant cell, and what do the parts do?
How do plants grow and reproduce?

Y8 UNIT 13
Forces and motion

How is speed measured?
How do distance-time graphs get used to calculate speed?

Y8 UNIT 14
Photosynthesis

How do plants use photosynthesis to survive?
How do plants take in the water they need for photosynthesis?

Y8 UNIT 15
The periodic table

What is the periodic table and how is it laid out?
What are the patterns in the alkali metals, halogens and noble gases?

Y8 UNIT 17
Sustainable stadiums

What environmental factors need considering for a stadium to be built?
How are stadia reliant on human behaviours?

Y8 UNIT 16
Changing forces

How do forces change the shape of an object?
How are forces used to turn an object?

YR9

Y9 UNIT 1
Forensic Science

What are some of the laws around drink and drugs?
How are crimes policed and prevented?

Y9 UNIT 2
Magnetism

What is magnetism and how does it work?
How can electromagnets be used?

Y9 UNIT 3
Interdependence

How are organisms classified?
What are the dangers that species face, and why is extinction an issue?

Y9 UNIT 6
Light waves

How does light travel and interact with objects?
How does the eye and the camera use light to produce an image?

Y9 UNIT 5
Inheritance and evolution

How are inherited traits passed on to the next generation?
How do organisms adapt and change over time?

Y9 UNIT 4
Gas pressure

How does the atmosphere apply pressure to us?
How does pressure affect objects in solids, liquids and gases?

Y9 UNIT 7
Life on Earth

How does the rotation of the Earth result in day and night?
How does the tilt of the Earth result in the seasons?

Y9 UNIT 8
Static electricity

What is static electricity and how is it made?
How can static electricity be useful to us?

Y9 UNIT 9
The reactivity series of metals

What is the reactivity series of the metals?
How can the reactivity series be used to extract metals from the ground?

Y9 UNIT 12
Atoms and the periodic table

How do isotopes get used to calculate relative atomic mass?
How can ionic equations be used to show a chemical reaction?

Y9 UNIT 11
Cells to systems

What are the differences between eukaryotic and prokaryotic cells?
How does the heart work, and what can cause cardiovascular disease?

Y9 UNIT 10
Reproductive health

The sexual concerns of some forms of electronic communication?
What are the methods used to control conception and pregnancy?

Y9 UNIT 13
Energy and the particle model

Why can energy changes result in a change of state?
Why is specific heat capacity different for different substances?

Y9 UNIT 14
Chromatography and analysis

How can chromatography be used to separate a mixture?
How can a chromatogram be analysed to obtain an Rf value?

Y9 UNIT 15
Defining force

What are resultant forces and how are they calculated?
How can you use forces for calculate work done?

KS4