

KEY Forces Energy Waves Earth and beyond Reactions Matter Maritime

YR7

Y7 UNIT 1
Particles

What is an atom?
How can the particle model show substances in different states?



Y7 UNIT 2

Energy resources

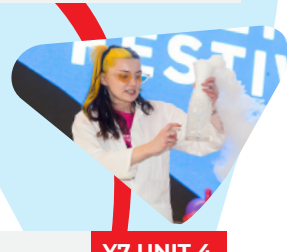
What are some examples of renewable and non-renewable energy sources?
How does energy transfer?



Y7 UNIT 3

Chemical reactions

What are chemical reactions?
What is combustion and why is it useful?



Y7 UNIT 7

Light

What is reflection?
How does the human eye work?



Y7 UNIT 6

Elements and compounds

What is the difference between an element and a compound?
How are all known elements displayed?

Y7 UNIT 5

Space

What objects are in our Solar System?
How does a solar eclipse happen?

Y7 UNIT 4

Motion

What happens when forces are unbalanced?
How is speed calculated?

Y7 UNIT 8

Acids and alkalis

What is a difference between acids and alkalis?
How can you measure whether a substance is acidic or alkaline?

Y7 UNIT 9

Circuits

What is the main difference between series and parallel circuits?
How does static electricity build up?



Y7 UNIT 10

Earth structure

What is the structure of the Earth?
How do sedimentary rocks form?

YR8

Y8 UNIT 1

Contact forces

What is friction?
How can you measure the stretching of a spring?



Y8 UNIT 2

Separating mixtures

What is a mixture?
How does filtering separate solids from liquids?



Y8 UNIT 3

Climate

What gases are in the atmosphere?
How are humans contributing to global warming?

Y8 UNIT 5

Metals and non-metals

What are properties of metals?
How can you create a reactivity series?

Y8 UNIT 4

Transferring energy

What is meant by conduction?
How can a house be insulated to prevent energy loss?

Y8 UNIT 6

Sound

What are the differences between transverse and longitudinal waves?
How does the human body detect sound?

Y8 UNIT 7

The Periodic table

What is the periodic table?
How does the pattern of reactivity change in group 1?

Y8 UNIT 8

Resources

Where do we get metal from?
What can be recycled and why is it important?



Y8 UNIT 9

Magnetism

What are electromagnets?
How can electromagnets be used?



YR9

Y9 UNIT 1

Energy

What are exothermic and endothermic reactions?
How do reaction profiles show energy change in a reaction?



Y9 UNIT 2

Periodic table development

What is the Dalton model of the atom?
How does the Bohr model of the atom differ from the Dalton one?

Y9 UNIT 3

Radiation and electromagnetic waves

What is radiation?
How are electromagnetic waves used?

Y9 UNIT 4

Models of the Universe

What is the Big Bang theory?
How have we used telescopes to detect planets?

Y9 UNIT 6

Changes of state

What is specific heat capacity?
How does an increase in temperature affect pressure of a gas?

Y9 UNIT 5

Using the atom

How are particles arranged in an atom?
How are Rf values calculated in chromatography?



Y9 UNIT 7

Bonding and structure

How do ionic and covalent bonds form?
How do the structures of ionic lattices and simple molecules differ?

Y9 UNIT 8

Monitoring motion

What is the difference between speed and velocity?
How can you measure acceleration?

KS4