

KEY  Forces  Energy  Waves  Earth and beyond

YR9

Y9 SUMMER TERM UNIT 1

 **Changes of state**

What is density?
How is specific heat capacity calculated?

Y9 SUMMER TERM UNIT 2

 **Calculating motion**

What is a distance-time graph?
How do you calculate acceleration?

YR10

Y10 UNIT 1

 **Pressure**
What is atmospheric pressure?
How is it determined if an object will float or sink?



Y10 UNIT 2

 **Newtons laws**
What is used to represent forces in a diagram?
Why are some objects able to accelerate?



Y10 UNIT 3

 **Forces in action**
What is Hooke's law regarding stretching of a spring?
How do simple machines work, such as levers and gears?

Y10 UNIT 6

 **Wave behaviour**
What are the properties of waves?
How is sound processed by the ear?

Y10 UNIT 5

 **Advanced magnetism**
What is a transformer and how does it use magnetism?
How do motors use magnetic fields to turn?



Y10 UNIT 4

 **Electricity**
What is static electricity and how can it be used?
How do current and potential difference change in series and parallel circuits?

Y10 UNIT 7

 **Electromagnetic spectrum**
What are the uses of electromagnetic waves?
How are electromagnetic waves used in imaging?



Y10 UNIT 8

 **Wave interaction**
What is the difference between a concave and a convex lens?
How do you produce a spectrum of white light?



Y10 UNIT 10

 **Uses and hazards of radiation**
What is nuclear fission?
How are nuclear fission and nuclear fusion different?

Y10 UNIT 9

 **Radioactive emissions**
What are the different types of radioactive emissions?
How are the the different types of radioactive emissions stopped?

YR11

Y11 UNIT 1

 **Work done**
What energy stores exist and what happens when these stores are used?
How can calculations between energy stores be calculated?



Y11 UNIT 2

 **Power and efficiency**
What is used to insulate the home?
How is the cost of energy calculated?

Y11 UNIT 4

 **Powering Earth**
What are the wires in a plug and what are their roles?
How does the National Grid supply energy safely to homes?

Y11 UNIT 3

 **Physics on the move**
What factors affect thinking distance?
How are stopping distances calculated?



Y11 UNIT 5

 **Beyond Earth**
What are the key components of the Big Bang?
How do we know about the structure of the Earth?