



## Physics - Year 10 Useful links

The Specification at a glance

<https://www.aqa.org.uk/subjects/physics/gcse/physics-8463/specification/specification-at-a-glance>

|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>4.4 Atomic Structure</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Structure of an Atom                                  | <a href="https://www.schoolphysics.co.uk/age14-16/Atomic%20physics/text/Atomic_structure/index.html">https://www.schoolphysics.co.uk/age14-16/Atomic%20physics/text/Atomic_structure/index.html</a>                                                                                                                                                                                                                                                                                                                                       |
| Development of the model of the atom                  | <a href="https://www.schoolphysics.co.uk/age14-16/Atomic%20physics/text/Atomic_theories/index.html">https://www.schoolphysics.co.uk/age14-16/Atomic%20physics/text/Atomic_theories/index.html</a>                                                                                                                                                                                                                                                                                                                                         |
| Mass Number, atomic number and isotopes               | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Isotopes_/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Isotopes_/index.html</a>                                                                                                                                                                                                                                                                                                                                                   |
| Radioactive Decay and nuclear radiation               | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Radioactivity_types/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Radioactivity_types/index.html</a>                                                                                                                                                                                                                                                                                                                               |
| Nuclear Equations                                     | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_equations/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_equations/index.html</a>                                                                                                                                                                                                                                                                                                                                   |
| Half-lives and the random nature of radioactive decay | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Half_life/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Half_life/index.html</a>                                                                                                                                                                                                                                                                                                                                                   |
| Radioactive contamination                             | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Safety_/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Safety_/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_waste/index.html#">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_waste/index.html#</a>                                                                                                                                                  |
| Background radiation                                  | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Background_radiation/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Background_radiation/index.html</a>                                                                                                                                                                                                                                                                                                                             |
| Half lives of different radioactive isotopes          | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Decay_series/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Decay_series/index.html</a>                                                                                                                                                                                                                                                                                                                                             |
| Uses of nuclear radiation                             | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Uses_of_radioisotopes/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Uses_of_radioisotopes/index.html</a>                                                                                                                                                                                                                                                                                                                           |
| Nuclear Fission                                       | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_fission/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_fission/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_fission_reactor/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_fission_reactor/index.html</a>                                                                                                                |
| Nuclear Fusion                                        | <a href="https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_fusion/index.html">https://www.schoolphysics.co.uk/age14-16/Nuclear%20physics/text/Nuclear_fusion/index.html</a>                                                                                                                                                                                                                                                                                                                                         |
| <b>4.6 Waves</b>                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Transverse and longitudinal waves                     | <a href="https://www.schoolphysics.co.uk/age11-14/Wave%20properties/text/Waves_/index.html">https://www.schoolphysics.co.uk/age11-14/Wave%20properties/text/Waves_/index.html</a>                                                                                                                                                                                                                                                                                                                                                         |
| Properties of waves                                   | <a href="https://www.schoolphysics.co.uk/age11-14/Wave%20properties/text/Vibrations_and_Waves/index.html">https://www.schoolphysics.co.uk/age11-14/Wave%20properties/text/Vibrations_and_Waves/index.html</a>                                                                                                                                                                                                                                                                                                                             |
| Reflection of waves<br>Refraction of waves            | <a href="https://www.schoolphysics.co.uk/age14-16/Light/text/Refraction_/index.html">https://www.schoolphysics.co.uk/age14-16/Light/text/Refraction_/index.html</a><br><a href="https://www.schoolphysics.co.uk/age11-14/Sound/text/Reflection%20of%20sound/index.html">https://www.schoolphysics.co.uk/age11-14/Sound/text/Reflection%20of%20sound/index.html</a><br><a href="https://www.schoolphysics.co.uk/age11-14/Light/text/Refraction_/index.html">https://www.schoolphysics.co.uk/age11-14/Light/text/Refraction_/index.html</a> |
| Sound waves                                           | <a href="https://www.schoolphysics.co.uk/age11-14/Sound/text/Sound_waves/index.html">https://www.schoolphysics.co.uk/age11-14/Sound/text/Sound_waves/index.html</a><br><a href="https://www.schoolphysics.co.uk/age11-14/Sound/text/Loudness,%20amplitude,%20pitch%20and%20frequency/index.html">https://www.schoolphysics.co.uk/age11-14/Sound/text/Loudness,%20amplitude,%20pitch%20and%20frequency/index.html</a>                                                                                                                      |

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      | <a href="https://www.schoolphysics.co.uk/age11-14/Sound/text/Speed_of_sound/index.html">https://www.schoolphysics.co.uk/age11-14/Sound/text/Speed_of_sound/index.html</a><br><a href="https://www.schoolphysics.co.uk/age11-14/Sound/text/Refraction_of_sound/index.html">https://www.schoolphysics.co.uk/age11-14/Sound/text/Refraction_of_sound/index.html</a>                                                                                                                                                                                                                              |
| Detection and exploration with waves | <a href="https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Ultra_sonics/index.html">https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Ultra_sonics/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/P_and_S_waves/index.html">https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/P_and_S_waves/index.html</a>                                                                                                                                                                                              |
| Electromagnetic waves                | <a href="https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Electromagnetic_radiation/index.html">https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Electromagnetic_radiation/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Electromagnetic_spectrum/index.html">https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Electromagnetic_spectrum/index.html</a>                                                                                                                                              |
| Lenses                               | <a href="https://www.schoolphysics.co.uk/age14-16/Light/text/Magnification_of_a_lens/index.html">https://www.schoolphysics.co.uk/age14-16/Light/text/Magnification_of_a_lens/index.html</a><br><a href="https://www.schoolphysics.co.uk/age11-14/Light/text/Lenses_/index.html">https://www.schoolphysics.co.uk/age11-14/Light/text/Lenses_/index.html</a>                                                                                                                                                                                                                                    |
| Visible light                        | <a href="https://www.schoolphysics.co.uk/age11-14/Light/text/Light_and_its_effects/index.html">https://www.schoolphysics.co.uk/age11-14/Light/text/Light_and_its_effects/index.html</a><br><a href="https://www.schoolphysics.co.uk/age11-14/Light/text/Prisms_and_colour/index.html">https://www.schoolphysics.co.uk/age11-14/Light/text/Prisms_and_colour/index.html</a>                                                                                                                                                                                                                    |
| Black body radiation                 | <a href="https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Wavelength_and_temperature/index.html">https://www.schoolphysics.co.uk/age14-16/Wave%20properties/text/Wavelength_and_temperature/index.html</a>                                                                                                                                                                                                                                                                                                                                                                     |
| <b>4.8 Space Physics</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Solar system                         | <a href="https://www.schoolphysics.co.uk/age11-14/Astronomy/text/Day_and_night/index.html">https://www.schoolphysics.co.uk/age11-14/Astronomy/text/Day_and_night/index.html</a><br><a href="https://www.schoolphysics.co.uk/age11-14/Astronomy/text/Solar_system_tour/index.html">https://www.schoolphysics.co.uk/age11-14/Astronomy/text/Solar_system_tour/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Formation_of_the_solar_system/index.html">https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Formation_of_the_solar_system/index.html</a> |
| Orbital motion                       | <a href="https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Orbits_/index.html">https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Orbits_/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Planetary_motion_spinning/index.html">https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Planetary_motion_spinning/index.html</a>                                                                                                                                                                                                                |
| Star life cycles                     | <a href="https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Forces_in_stars/index.html">https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Forces_in_stars/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Life_and_death_of_stars/index.html">https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Life_and_death_of_stars/index.html</a><br><a href="https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Exploding_stars/index.html">https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Exploding_stars/index.html</a>             |
| Red shift                            | <a href="https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Galactic_red_shift/index.html">https://www.schoolphysics.co.uk/age14-16/Astronomy/text/Galactic_red_shift/index.html</a>                                                                                                                                                                                                                                                                                                                                                                                                     |

### Year 10 Physics Commonly misspelt words

| <u>Key Word</u>             | <u>Definition</u>                                                                       |
|-----------------------------|-----------------------------------------------------------------------------------------|
| Amplitude                   | The maximum displacement of a wave from its equilibrium position                        |
| Contamination               | Unwanted presence of material containing radioactive atoms on other materials.          |
| Coolant                     | A fluid used to keep a nuclear reactor cool                                             |
| Cosmic Microwave Background | The first light in the Universe that is still visible today.                            |
| Critical mass               | The minimum amount of fissile material needed to maintain a nuclear chain reaction      |
| Diverging                   | A single or parallel paths splitting to go in different directions                      |
| Echo                        | The reflection of sound waves                                                           |
| Electromagnetic             | Relating to electric and magnetic fields                                                |
| Fission                     | The splitting of a large atom into two smaller atoms                                    |
| Frequency                   | The number of waves passing a single point in one second                                |
| Geiger counter              | An instrument for detecting ionising radiation                                          |
| Ionisation                  | The process by which an ion is formed                                                   |
| Irradiated                  | When a thing has been exposed to radiation                                              |
| Nebula                      | Highly diffuse clouds of dust and gas in space that typically span multiple light years |
| Nuclear                     | pertaining to the nucleus of the atom                                                   |
| Penetration                 | the capacity of a radiation to pass through a material                                  |
| Rarefaction                 | An area of reduced pressure or density.                                                 |
| Seivert                     | The unit of radiation dose                                                              |
| Specular reflection         | The uniform reflection of light from a reflecting surface, such that it forms an image. |
| Uranium                     | An element commonly used in nuclear energy                                              |