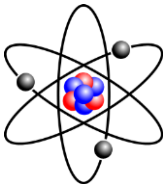
**Unit Overview – Atomic structure** **Target grade for tests: …….**



**You will learn about:**

You will study the properties of the particles that make up an atom. You learn about the different types of radioactive decay, their uses and hazards.

**You will be able to:**

Recall the relative change and mass of subatomic particles. Be able to use nuclear equations to show the elements formed from alpha and beta decay.

| **Key learning points** | |
|---|---|
| Atomic structure | |
| Radioactive decay | |
| Nuclear equations | |
| Half life | |
| Contamination | |

**Links to other subjects:**

**SMSC**
Evaluate the impact of nuclear power stations and nuclear waste.

**Numeracy**
Emulating nuclear equations. Substituting numerical values into equations using appropriate units. Interpretation of graphs.

**Literacy**
Describe observations in practical work. Describing the difference between fusion and fission. Describing the differences between alpha, beta, gamma and neutron radiation.

**Key Words**

**Beta particle**
**Gamma ray**
**Radioisotope**
**Neutron radiation**
**Background radiation**
**Nuclear equation**
**Half-life**
**Radioactive contamination**
**Tracer**
**Irradiation**
**Mutation**
**Radiotherapy**
**Tumour**
**Chain reaction**
**Control rods**
**Fuel rods**
**Nuclear fission**
**Nuclear Fusion**
**Atomic number**
**Energy level**
**Ionise**
**Isotope**
**Mass number**
**Nucleon**
**Activity**
**Alpha particle**
**Becquerel (Bq)**

| Research | Note-making | Group work & discussion | Memorisation | Precision & accuracy | Independence | Reflection |
|---|---|---|---|---|---|---|
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