

## Chemistry BTEC Student Learning Journey and Progress Record

The course includes 4 coursework tasks, each worth 20% of the student's marks, and examined content that is assessed at the end of year 11.

Coursework lessons include some teaching of new ideas and content and some guided independent student work in ICT rooms.

### Year 10

#### Coursework 1: **Chemical Reactivity and bonding**

- Atomic structure
- Group 1 elements
- Group 7 elements
- Ionic bonding (including dot and cross diagrams)
- Covalent bonding (including dot and cross diagrams)
- Properties of ionic and covalent compounds

Coursework 1 Result \_\_\_\_\_

#### Coursework 2: **Useful chemical products**

- Chemical and physical properties
- Uses of:
  - Carbon dioxide
  - Sodium Azide
  - Argon
  - Silicon
- Choosing materials based on chemical and physical properties.

Coursework 2 Result \_\_\_\_\_

#### Coursework 3: **Controlling industrial reactions**

- Interpreting word and symbol equations
- Rates of reaction practical methods
- Concentration and rate
- Pressure and rate
- Surface area and rate
- Temperature and rate
- Catalysts and rate
- Yield and Atom economy
- The Haber process
- Choosing reaction conditions in industry

Coursework 3 Result \_\_\_\_\_

### Year 11

#### Coursework 4: **Affecting the environment**

- Natural and Human activities
- Our changing earth
- Our changing atmosphere
- Effects of human activities on Earth
- Sustainable development

Coursework 4 Result \_\_\_\_\_

#### Examinable content: **Atoms**

- Atomic structure and electron configuration
- Patterns in the periodic table
- Isotopes
- Calculating relative atomic mass
- Elements, compounds and mixtures

Test on Atoms section: \_\_\_\_\_

#### Examinable content: **Acids**

- pH scale
- Hazards of acids and bases
- Hazard symbols
- Neutralisation
- Naming salts
- Neutralisation word and symbol equations
- Balancing equations
- Uses of neutralisation

Test on Acids section: \_\_\_\_\_

The rest of year 11 will be spent revising the examinable content and completing past paper questions in class.

**Assessment at end of Year 11:** 1 hour Science exam that will contain 18 marks of Chemistry content.