



Learning Journey: Year 7 Chemistry

Final Projected
Grade last year:

I am happy/unhappy with my final projected grade from last year because ...

To continue to improve my projected grade I need to focus on the habit of _____ by ...

Term 1: Introduction to science and Particles and their behaviour

Content covered:

Naming and drawing lab equipment
Creating results tables and drawing graphs
Solids, liquids and gases
Changes of state
Changes of state graphs
Diffusion
Gas Pressure

TA1 Projected
Grade:

Term 2: Atoms, elements and compounds

Content covered:

Atoms and Elements (Dalton's model)
Inside the atom
Elements and the Periodic Table
Molecules and compound theory
Bonds in compounds
Making compounds
Chemical formulae

TA2 Projected
Grade:

Term 3: Separation techniques

Content covered:

Mixtures
Purity
Dissolving Solutions
Solubility and saturated
Crystallisation
Chromatography
Distillation

Final Projected Grade:

Careers:

The career that interests me is ...

Subject will help me achieve this because ...

METG



LEARNING
HABITS

**Hard working
Inquisitive
Resilient**



CHARACTER
HABITS

**Respectful
Responsible
Aspirational**



Learning Journey: Year 8 Chemistry

Final Projected
Grade last year:

I am happy/unhappy with my final projected grade from last year because ...

To continue to improve my projected grade I need to focus on the habit of _____ by ...

Term 1: Year 7 recap and Chemical Reactions

Content covered:

- Year 7 recap chemical reactions
- Conservation of mass
- Chemical reactions
- Oxidation reactions
- Fuels and combustion
- Thermal decomposition
- Symbols and balancing equations
- State symbols

**TA1 Projected
Grade:**

Term 2: Acids and Alkalis

Content covered:

- Hazards
- Acids and Alkalis
- Indicators and pH scale
- Neutralisation
- Making salts
- Metals and acids
- Metals and non-metal oxide

**TA2 Projected
Grade:**

Term 3: Periodic Table

Content covered:

- Groups and periods
- Mendeleev's Table
- Atomic model recap
- Counting subatomic particles
- Electronic structure and Outer shell electrons
- Group 0 properties and reactivity trend
- Metals and non-metals
- Group 1 properties and reactivity trend
- Group 7 properties and reactivity trend

Final Projected Grade:

Careers:

The career that interests me is ...

Subject will help me achieve this because ...

METG



**LEARNING
HABITS**

**Hard working
Inquisitive
Resilient**



**CHARACTER
HABITS**

**Respectful
Responsible
Aspirational**



Learning Journey: Year 9 Chemistry

Final Projected Grade last year:

I am happy/unhappy with my final projected grade from last year because ...

To continue to improve my projected grade I need to focus on the habit of _____ by ...

Term 1: Chemical reactions part 2

Content covered

- Recap chemical reaction's part 1
- Reactivity series
- Displacement reactions
- Extracting metals from ores
- Exothermic and Endothermic reactions
- Energy profile graphs
- Investigating exothermic reactions
- Catalysts

TA1 Projected Grade:

Term 2: The Earth and atmosphere

Content covered

- The structure of the Earth
- Sedimentary rocks and fossil fuels
- Igneous rocks
- Metamorphic rocks
- The rock cycle
- Finite and renewable resources
- Ceramics, polymers and composites
- Conserving the worlds resources
- The composition of the atmosphere
- Evolution of the atmosphere
- Complete and incomplete combustion
- Acid Rain
- Carbon Cycle and the greenhouse effect
- Human activities effect on climate change
- Carbon footprint

TA2 Projected Grade:

Term 3: C1 Atomic Structure and C3 Bonding

Topic 1: Atomic Structure

- States of matter
- Atoms, mixtures and compounds
- Mixtures and separation **RP6**
- Word equations
- Atomic structure and electron configuration
- History of the atom
- Isotopes

Topic 2: Bonding

- Chemical bonds
- Ionic bonding
- Ionic compounds and their properties
- Covalent bonding
- Metallic bonding

Final Projected Grade:

Careers:

The career that interests me is ...

Subject will help me achieve this because ...

METG



LEARNING
HABITS

Hard working
Inquisitive
Resilient



CHARACTER
HABITS

Respectful
Responsible
Aspirational



Learning Journey: Year 10

Combined Chemistry

Final Projected
Grade last year:

I am happy/unhappy with my final projected grade from last year because ...

To continue to improve my projected grade I need to focus on the habit of _____ by ...

Term 1: C3 bonding, C2 Periodic Table and C7 Energy changes

Topic 2: Bonding

- Giant Covalent structures
- Properties of metals and alloys
- Metals conductors
- Diamond
- Graphite
- Graphene and fullerenes

- Development of the periodic table
- Metals and non-metals
- Groups 1, 7 and 0

Topic 7: Energy Changes

- Using energy transfers during Exothermic and Endothermic reactions **RP4**
- Reaction profiles
- HT bond energy calculations

Topic 3: The Periodic Table

- The periodic table

**TA1 Projected
Grade:**

Term 2: C4 Quantitative chemistry 1 and C5 Chemical reactions

Topic 4: Quantitative Chemistry 1

- Conservation of mass
- Balancing equations
- Relative masses and % by mass
- Chemical measurements
- Concentration
- HT moles
- HT Amounts of substances in equations
- HT Using moles to balance equations

Topic 5: Chemical Reactions

- Metal Oxides
- The reactivity series
- Displacement reactions
- Extracting metals and reduction
- Reactions of acids with metals **RP1**
- Neutralisation of acids
- Soluble salts
- Test for Hydrogen and state symbols
- HT oxidation and reduction (electrons)

**TA2 Projected
Grade:**

Term 3: C6 Electrolysis and C8 rates of reaction

Topic 6: Electrolysis

- The process of electrolysis
- Electrolysis of molten ionic compounds
- Using electrolysis to extract metals
- Electrolysis of aqueous solutions **RP3**
- Tests for gases
- HT Reactions at the electrodes
- HT Half equations

Topic 8.1: Rates of Reaction

- Rate of reaction graphs
- Calculating rates of reaction
- Effect of temperature **RP5a**
- Effect of concentration **RP5b**
- Effect of pressure
- Effect of catalysts
- Collision theory and activation energy

Final Projected Grade:

Careers:

The career that interests me is ...

Subject will help me achieve this because ...

METG



**LEARNING
HABITS**

**Hard working
Inquisitive
Resilient**



**CHARACTER
HABITS**

**Respectful
Responsible
Aspirational**



Learning Journey: Year 11

Combined Chemistry

Final Projected
Grade last year:

I am happy/unhappy with my final projected grade from last year because ...

To continue to improve my projected grade I need to focus on the habit of _____ by ...

Term 1: C4 Quantitative chemistry 2 and C8 Reversible Reactions

Topic 4: Quantitative Chemistry 2

- Recap quantitative chemistry 1
- Concentration of solutions
- HT Limiting reactants
- HT Gas volumes
- Recap of acids, neutralisation reactions
- The pH scale and neutralisation
- HT Strong and weak acids

Topic 8.2: Reversible Reactions

- Reversible reactions
- Energy changes and graphs
- Equilibrium
- HT changing conditions on equilibrium
- HT changing concentration
- HT changing temperature
- HT changing pressure

**TA1 Projected
Grade:**

Term 2: C9 Organic chemistry, C13 Earths atmosphere C14 Earths resources

Topic 9: Organic Chemistry

- Crude Oil, hydrocarbons and alkanes
- Fractional distillation and petrochemicals
- Properties of hydrocarbons
- Test for Carbon Dioxide
- Cracking and alkenes

Topic 13: Atmosphere

- Different gases in the atmosphere
- Earths early atmosphere
- How oxygen and carbon dioxide increased
- Greenhouse gases
- Human activities

- Global climate change

- Carbon footprint and its reduction
- Atmospheric pollutants from fuels
- Properties and effects of atmospheric pollutants

Topic 14: Using Resources

- Using the Earth's resources
- Potable water
- Waste water treatment **RP8**
- Life cycle assessments
- Reduce, reuse, recycle
- HT alternative methods extracting metals

**TA2 Projected
Grade:**

Term 3: Revision and Exams

Final Projected Grade:

Careers:

The career that interests me is ...

Subject will help me achieve this because ...

METG



**LEARNING
HABITS**

**Hard working
Inquisitive
Resilient**



**CHARACTER
HABITS**

**Respectful
Responsible
Aspirational**



Learning Journey: Year 12

AS Level Chemistry

Final Projected
Grade last year:

I am happy/unhappy with my final projected grade from last year because ...

To continue to improve my projected grade I need to focus on the habit of _____ by ...

Term 1: Physical, Inorganic and Organic

Topic: Physical

- Atomic structure
- Amount of substance **RP1**
- Bonding

Topic: Organic

- Introduction to organic chemistry
- Alkanes

Topic: Inorganic

- Periodicity

**TA1 Projected
Grade:**

Term 2: Physical, Inorganic and Organic

Topic: Physical

- Energetics **RP2**
- Kinetics **RP3**

Topic: Organic

- Halogenoalkanes
- Alkenes

Topic: Inorganic

- Group 2, the alkaline Earth metals

**TA2 Projected
Grade:**

Term 3: Physical, Inorganic and Organic

Topic: Physical

- Equilibrium (Kc)
- Oxidation, reduction and redox reactions

Topic: Organic

- Alcohols **RP5**
- Organic analysis **RP6**

Topic: Inorganic

- Group 7(17), the halogens **RP4**

Final Projected Grade:

Careers:

The career that interests me is ...

Subject will help me achieve this because ...

METG



**LEARNING
HABITS**

**Hard working
Inquisitive
Resilient**



**CHARACTER
HABITS**

**Respectful
Responsible
Aspirational**



Learning Journey: Year 13

A Level Chemistry

Final Projected
Grade last year:

I am happy/unhappy with my final projected grade from last year because ...

To continue to improve my projected grade I need to focus on the habit of _____ by ...

Term 1: Physical, Inorganic and Organic

Topic: Physical

- Thermodynamics
- Rate equations **RP7**
- Equilibrium constant K_p

Topic: Inorganic

- Properties of Period 3 elements and oxides
- Transition metals

Topic: Organic

- Optical isomerism
- Aldehydes and ketones
- Carboxylic acids and derivatives **RP10**
- Aromatic chemistry
- Amines
- Polymers

**TA1 Projected
Grade:**

Term 2: Physical, Inorganic and Organic

Topic: Physical

- Electrodes potential and electrochemical cells **RP8**
- Acids and Bases **RP9**

Topic: Inorganic

- Reactions of ions in aqueous solution **RP11**

Topic: Organic

- Amino acids, proteins and DNA
- Organic Synthesis
- NMR spectroscopy
- Chromatography **RP12**

**TA2 Projected
Grade:**

Term 3: Revision and Exams

Final Projected Grade:

Careers:

The career that interests me is ...

Subject will help me achieve this because ...

METG



**LEARNING
HABITS**

**Hard working
Inquisitive
Resilient**



**CHARACTER
HABITS**

**Respectful
Responsible
Aspirational**