



Year 12 Applied Science Diploma

Pearson

BTEC Applied Science Learning Journey



13

Coursework D - Professional practice

Coursework C - TLC chromatography

Coursework D - Preparation

Coursework C - Preparation

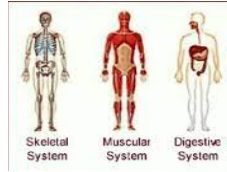
Coursework B - Calorimetry

Coursework B - Preparation



Coursework A - Titration and colorimetry

Coursework A - Preparation



Unit 2 – Practical scientific procedures and techniques

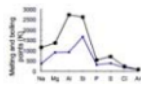
Unit 8 Physiology of Human Body Systems



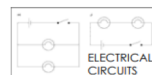
Health & safety associated with investigations

Method for data collection & analysis

PLANTS & THEIR ENVIRONMENT



Processing data



Interpretation/analysis of data



DIFFUSION OF MOLECULES

Unit 3 EXTERNAL EXAM

Unit 3 Science Investigation Skills

Selection of appropriate equipment, techniques and standard procedures

Variables in the investigation

Collection of quantitative & qualitative data

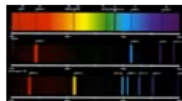


ENERGY CONTENT OF FUELS

Evaluation

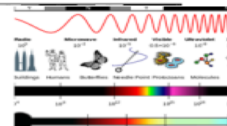


ENZYMES IN ACTION



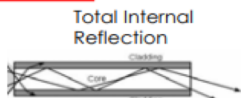
Energy Levels and Spectra

Electromagnetic spectrum

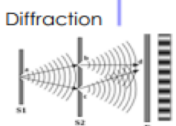


Unit 1 EXTERNAL EXAM

Unit 1 Principles and Applications of Science Waves in Communication



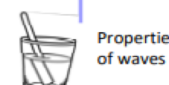
Total Internal Reflection



Diffraction



Reflection & Refraction



Properties of waves

Chemical trends



Calculating empirical formula

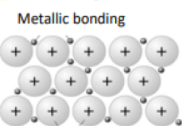
Relative formula mass

Calculating moles

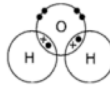


Avogadro constant

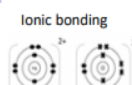
Unit 1 Principles and Applications of Science Periodicity and Properties of Elements



Metallic bonding



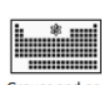
covalent bonding



Ionic bonding



Electronic configuration



Groups and periods



Prokaryotes and Eukaryotes



Specialised cells



Microscopy



Unit 1 Principles and Applications of Science Structure and Functions of Cells and Tissues

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Gas exchange



Respiratory system



Circulatory system



Cells and organisation





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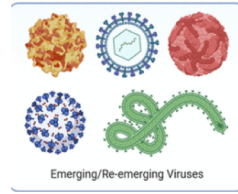


- Understanding variables
- Drawing graphs and analysing graphical data
- Writing methods
- Analysis of scientific concepts
- Assessing impact of secondary data
- Modelling scientific concepts
- Understanding relationships between science and society
- Drawing conclusions
- IDEAL Identify, describe, explain, apply, link
- Applying math's to the scientific concepts
- Risk Assessment
- Describe patterns

University/ Apprenticeship

A: Understand the importance of health and safety in scientific organisations

B Explore manufacturing techniques and testing methods for an organic liquid

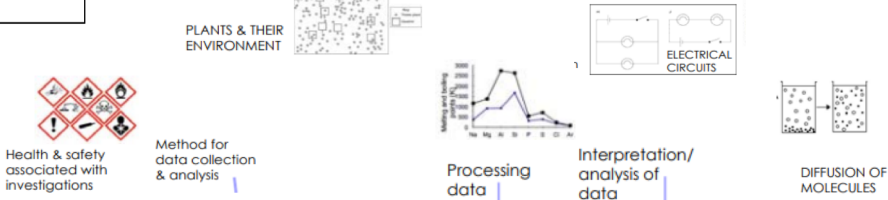


Unit 4: Lab technique and their application

Unit 12 Diseases and Infection

C Explore manufacturing techniques and testing methods for an organic solid

D Understand how scientific information may be stored and communicated in a workplace laboratory



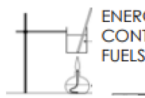
Unit 6 Investigation Skills

Unit 6 Investigative project

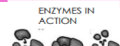
Selection of appropriate equipment, techniques and standard procedures

Variables in the investigation

Collection of quantitative & qualitative data



Evaluation



3: Fluids in motion

Unit 5 Principles and Applications of Science II Physics

1: Thermal physics in domestic and industrial applications

2: Materials in domestic and industrial applications

3: Energy changes in industry

Unit 5 Principles and Applications of Science II Chemistry

1: Relating properties to uses and production of substances

2: Structures, reactions and properties of commercially important organic compounds

4: Cell transport mechanisms

3: Urinary system structure and function

Unit 5 Principles and Applications of Science II Biology

2: Ventilation and gas exchange in the lungs

1: The cardiovascular system

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Unit 5 EXTERNAL EXAM



Pearson

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Understanding variables | Drawing graphs and analysing graphical data | Writing methods | Analysis of secondary data | Assessing impact of scientific concepts | Modelling scientific concepts | Understanding relationships between science and society | Drawing conclusions, explain, apply, link | IDEAL Identify, describe, explain, link | Applying math's to the scientific concepts | Risk Assessment | Describe patterns

University/ Apprenticeship

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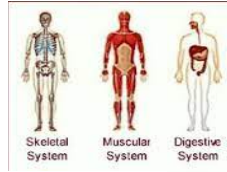
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Coursework A - Preparation



Unit 2 – Practical scientific procedures and techniques

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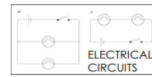
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Coursework B - Calorimetry

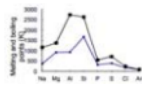
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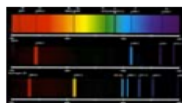


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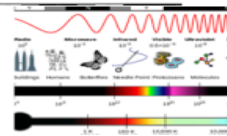


Year 12/13



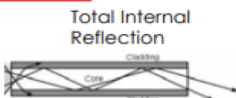
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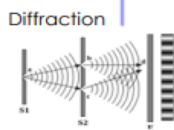


Unit 1 EXTERNAL EXAM

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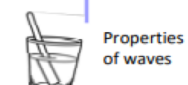
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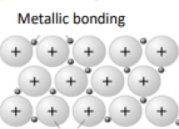
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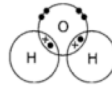


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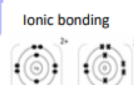
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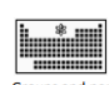
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