1 Properties and States of Matter

Themes

States of matter, properties of matter, physical and chemical properties, surface tension, energy types

Reading skills

Skimming and scanning Identifying main points

Vocabulary

Collocations
Adjective suffixes

Writing skills

Paragraph structure; Identifying topic sentences

Note-taking skills

Taking linear notes from a lecture on "States of matter"

Introducing formality and academic register

Introducing formality by comparing and contrasting two webinars on "States of matter"

2 Chemical elements, periodic table and atomic structure

Themes

Periodic table, element symbols and names, halogens, noble gases, groups and families, properties of elements, fluorine, electronegativity, electron affinity and ionisation potential, metals, metalloids, non-metals

Academic style

Formality; one word verbs

Writing

Cohesion and Coherence

Discussion skills

Asking for clarification Asking for opinions

Tenses

Past simple Present perfect simple



| | Themes | | | |
|---|--|------------------------|--|--|
| | Earth and atmosphere, hydrological cycle, rock cycle, water phases, chemical reactions, nitrogen cycle | | | |
| | Comparing and contrasting experimental and empirical da | | | |
| | Note-taking skills | | | |
| | Lecture cues | | | |
| | | | | |
| | Adverbs | | | |
| | Of degree, opinion, frequency, manner | | | |
| | Formality Commission Electrochemistry | | | |
| | Noun phrases | | | |
| | Confusing words | | | |
| | References 19969 or 1996 or 19 | | | |
| | Why and how we use them | | | |
| | | | | |
| 4 | Laboratory Safety Issues | R Describing processes | | |
| | Avoiding informality | | | |
| | Themes on to cautious writing | Vocabulary | | |
| | Laboratory safety issues and regulations, laboratory tools and equipment | | | |
| | Introduction to Paraphrasing | | | |
| | Cause and effect of lab accidents | | | |
| | cause and effect of lab accidents | | | |
| | Expressing purpose | | | |
| | Note-taking task | | | |
| | Note taking task | | | |
| | Following instructions | | | |
| | Note-taking task | | | |
| | Mo | | | |
| | Adverbial phrases | | | |
| | | | | |
| | Adjectives all statements and discretizes own prize the | | | |
| | Negative prefixes | | | |
| | Tenses | | | |
| | Past simple, past continuous | | | |
| | Structure vise lab report | | | |
| | | | | |
| 5 | Chemical Reactions, Bonding and Intermolecular | Forces (IF) 101 | | |
| | | | | |

Covalent bonds, Ionic bonds, electronegativity, intermolecular forces, London forces,

3 Chemical and Physical interactions and cycles

Themes

Conditionals

dipole-dipole, Van der Waals

Note-taking skills

Paraphrasing notes

Exemplifying

Chemical reactions
Chemical formulas

Note-taking skills

Intermolecular forces
Identifying the moves in a lecture

6 Separation Techniques

Themes

Separation techniques; distillation, evaporation, crystallisation, thin layer or paper chromatography, separating funnel, filtration

Academic skills

Describing processes

Vocabulary

Synonyms

Word-formation and use in context

Grammar

Inversions

If clauses

Note-taking

Thin Layer Chromatography

Peer-reviewing other student's work

Independent research skills

Summarising, synthesising and paraphrasing two sources with the same content

7 Scientific Method

Themes

Scientific method, experimental science, primary research, bias, replication, reproducibility, peer reviewed journals

Skills

Presentation structure and opening phrases Writing/designing slides

Vocabulary

Meaning variations between technical, academic and general words / word derivatives

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A.

| Grammar EAR a complete cou/se for interna | |
|---|------|
| Articles (A(n), the, or -) | |
| Independent Research Projects | |
| Creating visuals following guidelines | |
| Comparing and contrasting experimental and empirica | data |
| | |

Scientific Writing; noticing genre differences

Noticing writing style for different audiences Identifying rhetorical moves in scientific introductions

8 From Electricity to Electrochemistry

169

Themes

Electricity, electrochemistry, electroplating, electrolysis, redox reactions, galvanic cells

Note-taking style

Making mind-maps

Modal verbs

Avoiding informality
Introduction to cautious writing

Avoiding wordiness

Vocabulary

Synonyms

Compound words in science

Noticing genre differences within the same discipline

Focusing on academic writing style

Peer-reviewing a student's sample laboratory report

Note-taking and Writing

Revising a lab report following teacher feedback

Note-taking task

Electrolysis experiment Structure of a lab report

9 Acids and Bases

195

Themes

acids, bases, hydronium ion concentration, hydroxy ions concentration, conjugation, dissociation, amphoteric solvent

Definitions

| | Grammar Relative clauses | | |
|----|---|--------------|-------------------------------------|
| | Neidelve cladses | | |
| | Chemistry nomenclature | | |
| | Reading a Chemical Formula Chemical Affixes and Prefixes | | |
| | Chemical / Mixes and Frenkes | | |
| | Academic writing | | |
| | Reporting graphs and charts | | |
| 10 | Water Treatment | | 712 rom Electricity to Electroche |
| | Themas | | Themès |
| | Themes Water treatment methods, effluence | | |
| | chlorination, reverse osmosis, acti | vated carbon | |
| | Definitions | | |
| | Definitions | | |
| | Evaluative language | | |
| | Favouring and unfavouring other | s' views | |
| | Vocabulary | | |
| | Latin and Greek Plurals | | |
| | Word-formation and use in conte | | |
| | Passive voice | | |
| | | | |
| | Note-taking skills | | |
| | Waste water treatment process | | |
| | | | |
| | Part Leaves bromatography | | 145 oticing genre differences withi |
| 11 | Polymers | | Focusing on academic writing style |
| | Themes | | |
| | Polymers, synthetic, natural, thermosetting, thermoplastic, linear, branched, cross-linked, fibers, plastics and elastomers | | |
| | | | |
| | Gerund and infinitive | | |
| | Avoiding wordiness | | |
| | | | |
| | Note-taking task | | |
| | | | |
| | reproducintly, peer reviewed jou | | 257 |
| | Glossary | | 257 dds and Bases |

bases, hydronium ion concentration, hydroxy ions concentration, conjugate stqirosart

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Bibliography

Evaluation Checklist

Glossary