HESSLE HIGH SCHOOL & SIXTH FORM COLLEGE

PROSPERUM ITER FACIAS

AQA SEPARATE SCIENCE CHECKLISTS

8462 Chemistry

Paper 1

Triple Chem 1 *Italics- TRIPLE ONLY*

Atomic structure and the periodic table

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4.1.1.7	Electronic structure		105	104	20
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4.1.2.5	Group 1		109	108	24
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4.2.2.3	Properties of ionic compounds		115	114	30
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4.2.3.1	Diamond		119	118	34
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4.2.4.1	*Sizes of particles and their properties (triple)*				*38*
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4.3.2.1	**Moles HT**			124	42
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Triple Chem 1 *Italics- TRIPLE ONLY*

Atomic structure and the periodic table

	Content	RAG	QR Code
4.1.1.1	Atoms, elements and compounds		(All pages)
4.1.1.2	Mixtures		(All pages)
4.1.1.3	Scientific models of the atom		
4.1.1.4	Relative electrical charges of subatomic particles		
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4.1.1.7	Electronic structure		
4.1.1.6	Relative atomic mass		

4.1.2.1	The periodic table		
4.1.2.2	Development of the periodic table		
4.1.2.3	Metals and non-metals		
4.1.2.4	Group 0		
4.1.2.5	Group 1		
4.1.2.6	Group 7		
4.1.3.1	*Compare group 1 elements & transition metals (triple)*		
4.1.3.2	*Typical properties of transition metals (triple)*		
Bonding, structure, and the properties of matter			
4.2.1.1	Chemical bonds		
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4.2.1.3	Ionic compounds		
4.2.1.4	Covalent bonding		
4.2.1.5	Metallic bonding		
4.2.2.1	The 3 states of matter		(All pages)
4.2.2.2	State symbols		
4.2.2.3	Properties of ionic compounds		
4.2.2.4	Properties of small molecules		
4.2.2.5	Polymers		
4.2.2.6	Giant covalent structures		
4.2.2.7	Properties of metals and alloys		

4.2.2.8	Metals as conductors		
4.2.3.1	Diamond		
4.2.3.2	Graphite		
4.2.3.3	Graphene fullerenes		
4.2.4.1	*Sizes of particles and their properties (triple)*		
4.2.4.2	*Uses of nanoparticles (triple)*		

Quantitative chemistry			
4.3.1.1	Conservation of mass and balanced equations		
4.3.1.2	Relative formula mass		
4.3.1.3	Mass changes when a reactant or product is a gas		
4.3.1.4	Chemical measurements		
4.3.2.5	Concentration of solutions		
4.3.2.1	**Moles HT**		
4.3.2.2	**Amounts of substances in equations HT**		
4.3.2.3	**Using moles to balance equations HT**		
4.3.2.4	**Limiting reactants HT**		

4.3.3.1	*Percentage yield (triple)*		
4.3.3.2	*Atom economy (triple)*		
4.3.4	*Using concentrations of solutions in mol/dm^3 (triple)*		
4.3.5	*Using amounts of substance in relation to vol of gases*		
Chemical changes			
4.4.1.1	Metal oxides		
4.4.1.2	The reactivity series		
4.4.1.3	Extraction of metals and reduction		
4.4.1.4	**Oxidation and reduction in terms of electrons HT**		
4.4.2.1	Reaction of acids with metals		

4.4.2.2	Neutralisation of acids and salt production		
4.4.2.3	Soluble salts		
RP 1	**★Required practical – making salts**		
4.4.2.4	The pH scale and neutralisation		
4.4.2.5	*Titrations*		
RP 2	***★Required practical – neutralisation*** *(triple)*		
4.4.2.5	**Strong and weak acids HT**		
4.4.3.1	The process of electrolysis		
4.4.3.2	Electrolysis of molten ionic compounds		

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Energy Changes			
4.5.1.1	Energy transfer exothermic & endothermic reactions		
RP 4	**★Required practical – temperature changes**		
4.5.1.2	Reaction profiles		
4.5.1.3	**The energy change of chemical reactions HT**		
4.5.2.1	*Cells and batteries (triple)*		

4.5.2.2	*Fuel cells (triple)*		

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Paper 2

Triple Chemistry 2 *Italics- TRIPLE ONLY*

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	Content	RAG	Revision guide pages		
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Triple Chemistry 2 *Italics- TRIPLE ONLY*

	Content	RAG	QR Code
The rate and extent of chemical change			
4.6.1.1	Calculating rates of reaction		
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RP 5	★Required practical – rate of reaction		
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4.9.3.1	Atmospheric pollutants from fuels		
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Using resources			
4.10.1.1	Using the Earth's resources and sustainable development		
4.10.1.2	Potable water		
4.10.1.3	Waste water treatment		
RP 8	★Required practical – water purification		(Youtube 3.15 – 5.09)
4.10.1.4	**Alternative methods of metal extraction HT**		

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4.10.2.2	Ways of reducing the use of resources		
4.10.3.1	*Corrosion and its prevention (triple)*		
4.10.3.2	*Alloys as useful materials (triple)*		
4.10.3.3	*Ceramics, polymers and composites (triple)*		
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