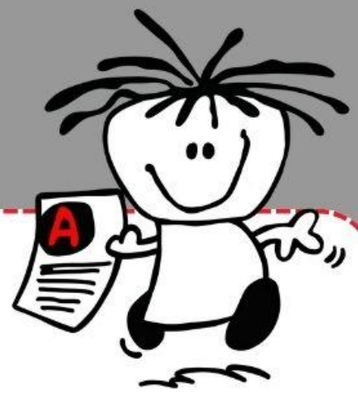
THE ANSWER SERIES

ATP & LESSON PLANNER

CONTENT, TRACKER & RESOURCES

GRADE 9

Natural Sciences



A **one-stop-teaching-tool** created by combining:

- the official DBE ATP
- **T**he **A**nswer **S**eries Natural Sciences Class Text & Study Guide
- **TAS** resources
- curated online resources
- shared resources from our **TAS** WhatsApp Teacher Community

2027

2027 TERM 1 NATURAL SCIENCES ATP & LESSON PLANNER THE ANSWER SERIES

GR 9

Suggested change to ATP to include the Scientific Method

GET CAPS docs | Join our WhatsApp group | TAS Community Page | Resources for GET Cognitive Analysis



ACADEMIC WEEKS	CAPS TOPIC	CORE CONTENT & PAGE NUMBERS (Based on The Answer Series Gr 9 Natural Sciences Class Text & Study Guide)		SUGGESTED EXERCISES	POSSIBLE PRACTICAL TASKS / CONSOLIDATION	DATE CONTENT WAS COMPLETED
WEEK 1 *13 – 15 Jan*	**Scientific Method** *3 school days*	Scientific Investigation	p. *iii – vii*	- Work through the 'Worked Example of a Scientific Investigation Question' with learners on p. *vii – viii*		
		Representing data: Tables and graphs	p. *ix – xii*	- Use these resources from our webinar to teach scientific investigations (**Watch the webinar here**)		
WEEK 2 & 3 *18 – 29 Jan* Lesson plan 1 Lesplan 1 Lesson plan 2 Lesplan 2	**Cells as the basic units of life** *10 school days* 22% of term test on all topics*	Cells – structural and functional units	p. 2		Watch this useful introductory video to cells	
		Components of plant and animal cells	p. 3 – 5	p. 64: Q2 & 3	Watch this useful video on cell structure	
		Differences between plant and animal cells	p. 6	p. 64: Q4	Amazing 3D model of cells to explore, add/remove organelles here	
		Cells in tissues, organs and systems – cell adaptations	p. 7			
		Unicellular vs Multicellular	p. 8			
		Organisation of cells	p. 8	p. 66: Q7	Light Microscope & Mounting Specimens p. 11 – 13 (PRAC)	
		Microscopy and The Light Microscope	p. 9 – 13	p. 65: Q5; p. 66: Q8	Virtual microscope – use microscope and view different cells here	
		Stem cells	p. 13 – 14	p. 63: Q1; p. 65: Q6	Consolidation activity here	
WEEK 4 *1 – 5 Feb*	**Overview of Systems** *5 school days* 12% of term test on all topics*	Main body systems	p. 15			
		Musculoskeletal system – overview and purpose	p. 23 – 25	p. 71: Q14	Revision exercises: ENG & AFR | MEMO ; Interactive skeleton here	
		Excretory system – overview and purpose	p. 25 – 28	p. 72: Q15	Revision exercises: ENG & AFR | MEMO ; Self-marking quiz here	
		Nervous system – overview and purpose	p. 28 – 31	p. 74: Q16	Revision exercises: ENG & AFR | MEMO	
WEEK 5 & 6 *8 – 19 Feb* Lesson plan Lesplan	**Circulatory & Respiratory System** *10 school days* 22% of term test on all topics*	Circulatory system – main processes and components	p. 18 – 19		- Colour in pages: blood | heart external | heart internal - Heart dissection p. 47 (PRAC) - Watch these useful videos: Overview 1 and Overview 2	
		The Heart & blood vessels	p. 45 – 49	p. 86: Q24.1 & 24.2		
		Circulation	p. 49	p. 86: Q24.3 – 24.7		
		Benefits of exercise on the cardiovascular system	p. 51	p. 87: Q24.8	Effect of exercise on heart rate p. 50 (PRAC)	
		Cardiovascular system health concerns	p. 20 & 56		- Heart & pulse rate (PRAC): ENG | AFR | MEMO	
		Respiratory system overview & structure	p. 21, 51 – 52		- Revision exercise circulatory system: ENG & AFR | MEMO	
		Breathing	p. 52 – 53	p. 84: Q23.2 – 23.4	Lung dissection (PRAC)	
		Gaseous exchange	p. 53 – 55	p. 83: Q23.1	- Self-marking quiz: ENG | AFR	
		Respiration	p. 55	p. 70: Q13; p. 85: Q23.5 – 23.7; p. 88: Q24.10	- Watch this useful video for revision/overview	
		Respiratory system health concerns	p. 22 & 56	p. 69: Q12; p. 82: Q22; p. 88: Q24.9	Revision exercise respiratory system: ENG & AFR | MEMO	
WEEK 7 & 8 *22 Feb – 5 Mar* Lesson plan Lesplan	**Human Reproductive System** *10 school days* 22% of term test on all topics*	Purpose of reproduction	p. 35			
		Puberty	p. 36	p. 77: Q19		
		Reproductive organs – male & sperm cell structure	p. 33, 37 – 38	p. 76: Q17.3; p. 78: Q20.2	Revision exercise ENG/AFR: here	
		Reproductive organs – female & ovum structure	p. 33, 38 – 39	p. 76: Q17.2; p. 78: Q20.1	Revision exercise ENG/AFR: here	
		Overview of main processes	p. 31 – 32	p. 75: Q17.1		
		Stages of reproduction – menstrual cycle	p. 40		Watch this useful video; Revision exercise here	
		Stages of reproduction – copulation & fertilisation	p. 41		Watch this useful video	
		Stages of reproduction – implantation & pregnancy	p. 41 – 42	p. 79: Q21.1 & 21.2	Revision exercises ENG/AFR: here and here	
		Health concerns	p. 33	p. 81: Q21.6		
		Effects of alcohol, smoking and drug abuse on the foetus	p. 34 & 43	p. 76: Q17.4		
		Contraception, abortion, infertility and surrogacy	p. 44 – 45	p. 77: Q18; p. 81: Q21.7		
WEEK 9 & 10 *8 – 19 Mar* Lesson plan Lesplan	**Digestive System** *10 school days* 22% of term test on all topics*	Digestive system overview	p. 16 – 17			
		Healthy diet – components of a healthy diet	p. 57 – 58	p. 90: Q26.1	Food test p. 58 (PRAC)	
		Malnutrition & diets from different cultures	p. 59	p. 90: Q26.2	Nutrition Task: ENG | AFR | MEMO	
		Alimentary canal – structures and functions	p. 60 – 62	p. 90: Q27.1; p. 91: Q27.3 – 27.5	Watch this useful video	
		Types of digestion	p. 62 – 63	p. 91: Q27.2; p. 92: Q27.5 – 27.7	Revision exercise: ENG | AFR | MEMO	
		Health issues	p. 17	p. 67: Q9; p. 68: Q10 & 11; p. 89: Q25	Reading food labels Task: ENG | AFR | MEMO	
	Consolidation and revision – TERM 1 REVISION ENG | AFR | MEMO				**Formal assessments: TASK 1 – Practical (min 20) TASK 2 – Test (min 30)**	

NOTE

Questions are suggested according to when learners will be able to do them.



NOTE

Not all shared resources are TAS creations – some are shared contributions from our Teacher WhatsApp group.

*Calculated based on teaching time in weeks divided by total teaching time for all topics, e.g. Digestive system = 2/9 x 100 = 22% ; not factoring in Scientific Method in week 1

2027 TERM 2 NATURAL SCIENCES ATP & LESSON PLANNER THE ANSWER SERIES

GR 9

GET CAPS docs | Join our WhatsApp group | TAS Community Page | Resources for GET Cognitive Analysis



ACADEMIC WEEKS	CAPS TOPIC	CORE CONTENT & PAGE NUMBERS *Based on The Answer Series Gr 9 Natural Sciences Class Text & Study Guide*		SUGGESTED EXERCISES	POSSIBLE PRACTICAL TASKS / CONSOLIDATION	DATE CONTENT WAS COMPLETED
WEEK 1 *6 – 9 Apr* Lesson plan Lesplan	**Compounds** *4 school days* 13% of term test on all topics*	Revise Grade 8 knowledge	p. 94		- Download and/or study the Periodic Table in various forms AND interactive game here - Periodic Table (high res) download with pictures and/or words here - Watch Video #1 The building blocks of matter @the_answer_series: ENG | AFR	
		The Periodic Table of Elements: arrangement of elements; classifying elements (metals, semi-metals & non-metals); first 20 elements	p. 95 – 97	p. 122/123: Q1 – Q3		
		Names of compounds	p. 98 –99	p. 123/124: Q4 – Q9	- Download MANY free worksheets with memos on naming compounds here - Interactive / self-marking exercise on Names & Formulas here - Simple idea for an activity to build molecules here	
WEEK 2 *12 – 16 Apr* Lesson plan 1 Lesplan 1 Lesson plan 2 Lesplan 2	**Chemical Reactions** *5 school days* 12% of term test on all topics*	Introduction	p. 99			
		Chemical equations to represent reactions	p. 100	p. 124: Q10 – 13	- Watch a short video on how to teach balancing equations: ENG | AFR - Balancing chemical equations interactive activity here - Download MANY free worksheets with memos on writing word equations here - Download MANY free worksheets with memos on balancing chemical equations here - Worksheet on balancing equations here	
		Balanced equations	p. 100 – 102	p. 125: Q14 – Q16		
WEEK 3 & 4 *19 – 30 Apr* Lesson plan Lesplan	**Reaction of Metals with Oxygen** *8 school days* 25% of term test on all topics*	General reaction: metals with oxygen	p. 102 – 103			
		Reaction of iron with oxygen	p. 103 – 104	p. 125: Q17; p. 126: Q21		
		Reaction of magnesium with oxygen	p. 104 – 105	p. 125: Q18 – Q20	Watch this useful video	
		Formation of rust	p. 105	p. 126: Q22		
		Ways to prevent rusting	p. 106 – 107	p. 126: Q23	Watch this video on the cost of corrosion (application to real life)	
WEEK 5 *3 – 7 May* Lesson plan Lesplan	**Reaction of Non-metals with Oxygen** *5 school days* 13% of term test on all topics*	General reaction: non-metals with oxygen	p. 107	p. 126: Q24	- Watch this video on the reaction of non-metals with oxygen, then watch this video on the reaction of metals with oxygen to compare - Practical on the reactions of metals and non-metals with oxygen: ENG & MEMO | AFR & MEMO - Download a poster of the different flame colours for your classroom here - Find more resources like the worksheets provided here	
		Reaction of carbon with oxygen	p. 107 – 108	p. 127: Q25		
		Reaction of sulphur with oxygen	p. 108 – 109	p. 127: Q26		
WEEK 6 *10 – 14 May* Lesson plan Lesplan	**Acids, Bases & pH value** *5 school days* 12% of term test on all topics*	Introduction	p. 109		- Interactive pH scale: basics activity here - Make your own universal indicator with red cabbage – see how here	
		Concept of pH value	p. 109 – 110	p. 127: Q27 & Q28	Interactive pH scale activity here	
		Indicators	p. 110 – 112	p. 127: Q29	- Testing household substances p. 111 (PRAC): Worksheet ENG & MEMO | AFR & MEMO - Download posters: different pH indicators & red cabbage indicator's colour changes	
		Neutralisation and pH	p. 112 – 114	p. 128: Q30 – Q34	Neutralising vinegar and bicarbonate of soda p. 113 (PRAC), Worksheet: ENG & MEMO	
WEEK 7 & 8 *17 – 28 May* Lesson plan 1 Lesplan 1 Lesson plan 2 Lesplan 2	**Reactions of Acids with Bases** *10 school days* 25% of term test on all topics*	General reaction: acid with a metal oxide	p. 114 – 115	p. 129: Q35	Observe the reaction between an acid and an oxide p.115 (PRAC)	
		The pH of non-metal oxide solutions	p. 116			
		General reaction: acid with a metal hydroxide	p. 116 – 118		Preparation of a salt p. 117 (PRAC)	
		General reaction: acid with a metal carbonate	p. 118 – 120	p. 129/130: Q36 – Q43	Test the gas released during the reaction between an acid and a carbonate p. 118 (PRAC)	
		Applications of reactions of acids with bases	p. 120	p. 131: Q44 & Q45		
		General reaction: acid with a metal	p. 120 – 122	p. 131: Q46 & Q47	Test the gas released during the reaction between an acid and a metal p. 121 (PRAC)	
WEEK 9 – 12 *31 May – 25 Jun*	**Time for consolidation and revision – TERM 2 REVISION** ENG & MEMO | AFR & MEMO				**Formal assessments: TASK 3 – Practical (min 20) TASK 4 – Test (min 30)**	



*Calculated based on teaching time in weeks divided by total teaching time for all topics, e.g. Compounds = 1/8 x 100 = 13%

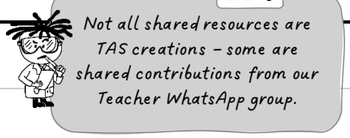
2027 TERM 3 NATURAL SCIENCES ATP & LESSON PLANNER THE ANSWER SERIES

GR 9

GET CAPS docs | Join our WhatsApp group | TAS Community Page | Resources for GET Cognitive Analysis



ACADEMIC WEEKS	CAPS TOPIC	CORE CONTENT & PAGE NUMBERS		SUGGESTED EXERCISES	POSSIBLE PRACTICAL TASKS / CONSOLIDATION	DATE CONTENT WAS COMPLETED
		Based on The Answer Series Gr 9 Natural Sciences Class Text & Study Guide				
WEEK 1 – 2 *20– 30 Jul* Lesson plan Lesplan	**Forces** *9 school days* 22% of term test on all topics*	What is a force?	p. 133			
		Measuring force	p. 133 – 135	p. 181: Q1	Investigate the effect of push and pull forces (PRAC) p. 134	
		Forces work in pairs	p. 135 – 136	p. 181: Q2 & Q3; p. 182: Q6	Investigate the size and direction of a pair of forces (PRAC) p. 135	
		Balanced and unbalanced forces	p. 136 – 138	p. 182: Q4 & Q5	Investigate the combined effect of forces (PRAC) p. 136	
		Contact forces and field forces	p. 139 – 140		Use this simulation to investigate forces and motion	
		Field forces: Gravitational force, mass and weight	p. 140 – 144	p. 182/183: Q7 – Q12	- Investigate the effect of gravity on a falling object (PRAC) p. 142 - Investigate the relationship between mass and weight (PRAC) p. 143	
		Field forces: Magnetic force, magnetic poles and magnetic fields	p. 144 – 148	p. 184: Q13 – Q15 p. 185: Q16 – Q18	- Distinguish between magnetic and non-magnetic materials (PRAC) p. 144 - Screening a magnetic field (PRAC) p. 145 - Investigate magnetic forces (PRAC) p. 147 - Investigate magnetic fields (PRAC) p. 148	
		Field forces: Electrostatic force, positive and negative charges, charging objects by friction, electrostatic force and the charging of thunder clouds: lightning	p. 149 – 152	p. 186/187: Q19 – Q24	- Investigate electrostatic forces (PRAC) p. 150 - Investigate magnetic fields (PRAC) p. 148	
(½) WEEK 3 *2 – 4 Aug* Lesson plan Lesplan	**Electric Cells as Energy Systems** *3 school days* 6% of term test on all topics*	A cell is a chemical system	p. 152	NOTE: Questions are suggested according to when learners will be able to do them.	How batteries work: watch here	
		A cell is a source of electricity	p. 153			
		A battery is a group of cells	p. 153 – 155	p. 188: Q25 – Q27	Investigate electric cells (PRAC A and B) p. 154	
(½) WEEK 3 & WEEK 4 *5 – 13 Aug* Lesson plan Lesplan	**Resistance** *6 school days* 17% of term test on all topics*	Uses of resistors – conductors of electricity	p. 155 – 156			
		Resistance	p. 156 – 157		Simulate resistance in a wire here	
		Factors that affect resistance – type, length, thickness and temperature of the conductor	p. 157 – 160	p. 189: Q28 – Q30	Investigate the factors that influence the resistance of a metal conductor (PRAC A to C) p. 158	
WEEK 5 & 6 *16 – 27 Aug* Lesson plan Lesplan	**Series and Parallel Circuits** *10 school days* 22% of term test on all topics*	Important circuit concepts	p. 160 – 161	p. 190: Q31 & Q32		
		Series circuits	p. 161		Construct circuits using this interactive simulation	
		Cells in series	p. 162		- Investigate cells in series (PRAC) p. 162 - Investigate resistors in series (PRAC) p. 163	
		Parallel circuits	p. 164			
		Resistors in parallel	p. 164		- Investigate cells in parallel (PRAC) p. 164 - Investigate resistors in parallel (PRAC) p. 165	
		Compare series and parallel circuits	p. 166 – 167	p. 190: Q33		
		Lighting systems in our homes	p. 167		Investigate lighting systems in our homes (PRAC) p. 167	
		Resistors manufactured with an accurate resistance	p. 168			
		Relationship between V, I and R	p. 168	p. 191/192: Q34 – Q36	Use this interactive simulation to teach Ohm's Law	
		Wiring in houses	p. 169 – 170		Interactive game – test learner knowledge on circuit connections here	





Buy the Gr 9 Natural Sciences 3-in-1

Koop die Gr 9 Natuurwetenskappe 3-in-1



(½) WEEK 7 *30 Aug – 1 Sept* Lesson plan Lesplan	**Safety with electricity** *3 school days* 6% of term test on all topics*	Safety practices – overload	p. 170			
		Fuses, circuit breakers and earth leakage systems	p. 170			
		Three-pin plugs	p. 171 – 172	p. 193: Q37	- Investigate the three-pin plug of an electrical appliance (PRAC) p. 171 - Interactively label a three-pin plug here	
		Illegal electrical connections	p. 172 – 173			
(½) WEEK 7 & (½) WEEK 8 *2 – 8 Sept* Lesson plan Lesplan	**Energy and the National Electricity Grid** *5 school days* 10% of term test on all topics*	Electricity generation – coal and other types of power stations	p. 173		Power stations and the national grid – watch here	
		The functioning of a power station	p. 173 – 174			
		Disadvantages of fossil fuels	p. 174			
		Alternative sources of energy: wind, hydroelectric, tidal and wave and solar	p. 174 – 176	p. 194: Q39 & Q40	- How do solar panels work? Video here - How do wind turbines work? Video here	
		Nuclear power in South Africa – radioactive fuel	p. 176 – 177			
		Operation of a nuclear power station	p. 177		How do nuclear power plants work? Video here	
		Radioactivity and nuclear waste	p. 177	p. 194: Q41		
		National electricity grid – interactive system	p. 177 – 179			
		Power surges and grid overload	p. 179	p. 194: Q38		
(½) WEEK 8 & WEEK 9 *9 – 17 Sept*	**Cost of Electrical Power** *7 school days* 17% of term test on all topics*	Electrical power	p. 179		What is a kilowatt hour? Watch here	
		Power ratings (energy consumption)	p. 179			
		Consumer cost	p. 180		How much electricity does it take to power the world? Watch here	
		Saving electricity	p. 180	p. 195: Q42		
WEEK 10 *20 – 22 Sept*	**Time for consolidation and revision – TERM 3 REVISION ENG & MEMO | AFR & MEMO – PRACTICE TESTS here**				**Formal assessments: TASK 5 – Project (any content from Term 1 to 4 @ min 30 marks) TASK 6 – Test (Term 3 content only @ min 30 marks)**	

*Calculated based on teaching time in weeks divided by total teaching time for all topics, e.g. Forces = 2/9 x 100 = 22%



IN NEED OF SOME TAS MAGIC?

Digital Catalogue

How to buy our books

How to buy our eBooks

Why include the Answers?

Our 50+ year story

TAS Teacher Communities

How to use TAS books – Teachers

THE ANSWER SERIES

2027 TERM 4 NATURAL SCIENCES ATP & LESSON PLANNER THE ANSWER SERIES

GR 9

GET CAPS docs | Join our WhatsApp group | TAS Community Page | Resources for GET Cognitive Analysis



ACADEMIC WEEKS	CAPS TOPIC	CORE CONTENT & PAGE NUMBERS (Based on The Answer Series Gr 9 Natural Sciences Class Text & Study Guide)		SUGGESTED EXERCISES	POSSIBLE PRACTICAL TASKS / CONSOLIDATION	DATE CONTENT WAS COMPLETED
WEEK 1 *5 – 8 Oct* Lesson plan Lesplan	**The earth as a system** *4 school days*	The earth as a system – introduction	p. 197			
		Spheres of the earth – lithosphere, hydrosphere, atmosphere and biosphere	p. 197 – 198	p. 222: Q1 & Q2		
		Interactions between the spheres	p. 198 – 199	p. 222/223: Q3 – Q5		
WEEK 2 & (½) WEEK 3 *11 – 20 Oct* Lesson plan Lesplan	**Lithosphere** *8 school days*	Structure of the earth	p. 199 – 200		Watch this video on the structure of the earth	
		Structure of the lithosphere	p. 200	p. 224: Q8	Watch this useful video on how the earth's crust moves	
		Minerals in the crust of the lithosphere	p. 200	p. 223: Q7		
		Rocks of the lithosphere	p. 201	p. 224: Q9	Watch this useful video on the minerals and rocks of the lithosphere	
		The rock cycle	p. 201 – 204	p. 223: Q6; p. 224/225: Q10 – Q11	Watch this useful video on the rock cycle	
(½) WEEK 3 & WEEK 4 *21 – 29 Oct* Lesson plan Lesplan	**Mining of mineral resources** *7 school days*	Mining of mineral resources – introduction	p. 204		NOTE: *Not all shared resources are TAS creations – some are shared contributions from our Teacher WhatsApp group.*	
		Extracting ores	p. 204 – 206	p. 226: Q13 & Q14		
		Refining minerals	p. 206 – 207	p. 226/227: Q15 – Q16		
		Mining in South Africa	p. 207 – 210	p. 225: Q12; p. 227/228: Q17 – Q20		
WEEK 5 & (½) WEEK 6 *1 – 9 Nov*	**Atmosphere** *7 school days*	Atmosphere – gases and layers	p. 210 – 212		Here is a printable scaled image of the earth's atmosphere layers	
		Troposphere	p. 212			
		Stratosphere	p. 212 – 213			
		Mesosphere	p. 213			
		Thermosphere	p. 213 – 214	p. 230: Q22 & Q23	- Use this simulation to study the greenhouse effect – select 'WAVES'	
		The greenhouse effect	p. 214 – 217	p. 229: Q21; p. 231: Q24	- Watch this video about 'Everything you need to know about Earth'	
(½) WEEK 6 *10 – 12 Nov*	**Birth, life and death of a star** *3 school days*	Introduction	p. 217			
		The birth of a star	p. 218		- Watch how a star is born here	
		The life of a star	p. 218 – 219		- Watch 'The life cycle of stars' here - Journey through an exploded star here	
		The death of a star	p. 219 – 221	p. 232: Q25 & Q26	- Practice Nov Exam: ENG & MEMO | AFR & MEMO	
WEEK 7 – 11 *15 Nov – 8 Dec*	**Final Exams**	**Formal assessments: TASK 7 – Exam (60% Term 3 content and 40% Term 4 content @ min 60 marks)**			**All Grade 9 GEC Past Papers here**	

NOTE

- The final exam must cover TERM 3 and 4 content.
- The content of TERM 3 must be equivalent to 60% of the paper.
- The content of TERM 4 must be equivalent to 40% of the paper.
- Also, remember to calculate the % weighting for each topic, based on the amount of teaching time to ensure that the content is not over/under assessed.
- The accompanying table shows an **example** for the mark allocation per topic if the exam were out of **100 marks**.

	TOPIC	% of paper	ATP teaching time	Mark allocation $\frac{teaching\ weeks}{total\ weeks}\ x\ number\ of\ marks$
TERM 3	Forces	60% of the paper *i.e. 60 marks*	2 weeks	± 13 marks
	Electric cells and Energy Systems		0.5 week	± 4 marks
	Resistance		1.5 weeks	± 10 marks
	Series and Parallel Circuits		2 weeks	± 13 marks
	Safety with Electricity		0.5 week	± 4 marks
	Energy and the National Electricity Grid		1 week	± 7 marks
	Cost of Electrical Power		1.5 weeks	± 10 marks
		TOTAL:	**9 weeks**	
TERM 4	The Earth as a System	40% of the paper *i.e. 40 marks*	1 week	± 7 marks
	Lithosphere		1.5 weeks	± 10 marks
	Mining of Mineral Resources		1.5 weeks	± 10 marks
	Atmosphere		1.5 weeks	± 10 marks
	Birth, Life and Death of a Star		0.5 week	± 3 marks
		TOTAL:	**6 weeks**	

$\frac{2}{9}\ x\ 60$