

THE **ANSWER** SERIES

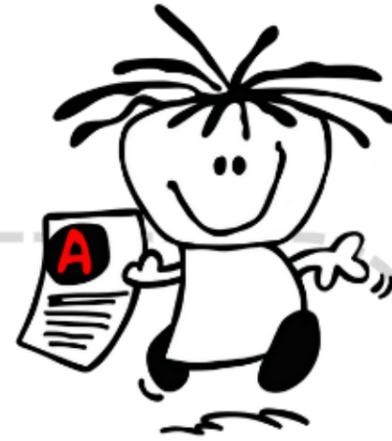
ATP & LESSON PLANNER

CONTENT, TRACKER & RESOURCES

GRADE

8

Natural Sciences



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

- the official DBE ATP
- The **Answer Series** Natural Sciences Class Text & Study Guide
- **TAS** resources
- curated online resources
- shared resources from our **TAS** WhatsApp Teacher Community

2026



Keep track of your curricular progress here ↓

ACADEMIC WEEKS	CAPS TOPIC	CORE CONTENT & PAGE NUMBERS		SUGGESTED EXERCISES	POSSIBLE PRACTICAL TASKS / CONSOLIDATION	DATE CONTENT WAS COMPLETED
		<i>Based on The Answer Series Gr 8 Natural Sciences 3-in-1 Class Text & Study Guide</i>				
WEEK 1 14 – 16 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. vi – vii		
		Representing data: Tables and graphs	p. viii – xi	- Use these resources from our webinar to teach scientific investigations (Watch the webinar here)		
WEEK 2 & 3 19 – 30 Jan Lesson plan Lesplan	Photosynthesis and Respiration 10 school days 22% of term test on all topics*  Watch on YouTube	Photosynthesis and Respiration Introduction	p. 2		Watch The Answer Series Videos on this topic on YouTube: English playlist here Afrikaans playlist here Eng & Afr Worksheets here Observe Photosynthesis with this easy activity Do an iodine starch test of ripe vs unripe bananas here (Prac) - Do a virtual test for starch here - Prac investigation: ENG & ENG MEMO AFR & AFR MEMO - Virtual Photosynthesis Practical here Fun way to teach Respiration – Activity Idea - Simulation to compare these processes in plants/animals - Here is a useful printout summary for learners: ENG AFR - Here is a useful revision exercise for learners: ENG AFR - Complete this self-marking quiz	
		Photosynthesis – Living organisms and the sun	p. 3			
		Photosynthesis – The process	p. 4 – 5	p. 53: Q2		
		Storage and use of glucose	p. 5 – 6	p. 54: Q4		NOTE Questions are suggested according to when learners will be able to do them.
		The site of photosynthesis	p. 6			
		The importance of photosynthesis	p. 6	p. 54: Q5		
		Testing for the presence of starch	p. 7	p. 54: Q3		
		Respiration – Energy from Food	p. 8			
		Respiration – The process	p. 8 – 9			
		The importance of respiration	p. 9	p. 55/56: Q6 – Q8		
		Testing for the presence of carbon dioxide	p. 9	p. 56: Q9		
Comparison between Photosynthesis and Respiration	p. 10	p. 53: Q1				
WEEK 4 – 8 2 Feb – 6 Mar Lesson plan 1 Lesplan 1 Lesson plan 2 Lesplan 2	Interactions and Interdependence within the Environment 25 school days 56% of term test on all topics*	Introduction to ecology	p. 11		NOTE Not all shared resources are TAS creations – some are shared contributions from our Teacher WhatsApp group.  - Possible Ecosystems Project: ENG AFR - How to study an ecosystem (possible project) on p. 16 Sort the types of consumers in this interactive game here - Virtual ecosystem simulation – interactions between biotic factors - Producer, consumer and decomposer game here Complete food chains and see them come alive here Interactive food chain and food web activity here Predict what will happen in food chains when the balance is disrupted Complete this self-marking quiz	
		Levels of ecology	p. 12 – 13	p. 58: Q2 & Q3		
		Ecosystem components – Biotic and abiotic	p. 14 – 16	p. 59: Q4; p. 60: Q6		
		Environmental interactions	p. 17	p. 60: Q7 & Q8		
		Feeding relationships – Producers	p. 18			
		Feeding relationships – Consumers	p. 18 – 19			
		Feeding relationships – Decomposers	p. 19 – 20			
		Energy flow: Food chains	p. 21 – 23	p. 61: Q9		
		Energy flow: Energy pyramids	p. 23 – 24			
		Energy flow: Food webs	p. 25 – 26	p. 62/63: Q10 – Q13		
		Balance in the Ecosystem – Natural factors	p. 26 – 27			
		Balance in the Ecosystem – Human factors	p. 27 – 29	p. 63: Q14; p. 66: Q20		
		Adaptations – Structural, functional, behavioural	p. 29 – 32	p. 65: Q18		
Adaptations – Examples in plants and animals	p. 33 – 36	p. 59: Q5; p. 64: Q15 – Q17; p.66: Q19				
Conservation of the ecosystem	p. 37 – 38	p. 57: Q1; p. 66: Q21				
WEEK 9 & 10 9 – 20 March Lesson plan Lesplan	Microorganisms 10 school days 22% of term test on all topics*	Types of microorganisms – Introduction	p. 39 – 40		Watch these useful videos for introduction: video 1 and video 2 Video on bacterial communities Video on how to grow bacteria Watch an amoeba eat here Watch protists move about here - Read-up on some interesting things fungi can do: here and here - Watch this interesting video about the zombie fungus <i>cordyceps</i> Download this slide show exercise and try to identify the microbes Interactive size scale here Fun activity to teach learners about germs on p. 46 Watch this useful video on the history of handwashing Watch this useful video on how cholera spreads Investigate the growth of yeast p. 51 – 52 (Prac)	
		Types of microorganisms – Bacteria	p. 41			
		Types of microorganisms – Protists	p. 41			
		Types of microorganisms – Fungi	p. 42			
		Types of microorganisms – Viruses	p. 43			
		Summary of the microorganisms	p. 44	p. 67: Q2		
		Calculating size (not in ATP)	p. 45	p. 68: Q3		
		Harmful microorganisms	p. 46 – 47			
		Diseases caused by microorganisms – TB	p. 47			
		Diseases caused by microorganisms – AIDS	p. 47 – 48	p. 69: Q6		
		Diseases caused by microorganisms – Malaria	p. 48			
		Diseases caused by microorganisms – Waterborne	p. 49	p. 68/69: Q4 & Q5		
		Useful microorganisms	p. 50 – 51			
Investigate the growth of yeast	p. 51 – 52	p. 67: Q1; p. 70: Q7				
WEEK 11 23 – 27 March	Time for consolidation and revision – TERM 1 REVISION ENG AFR			Formal assessments: TASK 1 – Practical (min 20) TASK 2 – Test (min 30)		

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



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		<i>Based on The Answer Series Gr 8 Natural Sciences 3-in-1 Class Text & Study Guide</i>					
WEEK 1 8 – 10 April Lesson plan Lesplan	Introduction to Periodic Table of Elements 3 school days	Revise the Periodic Table of Elements: arrangement of elements on the PT; some properties of metals, semi-metals & non-metals	p. 73 – 74	p. 123: Q2 & Q3	- Download and/or study the Periodic Table of elements in various forms AND interactive game here - Periodic Table (high res) download with pictures and/or words here		
WEEK 2 & 3 13 – 24 April Lesson plan Lesplan  Watch on YouTube	Atoms 10 school days 33% of term test on all topics*	The building blocks of matter	p. 72		- Free worksheets with memos on the atomic structure and periodic table here		
		Atoms & Elements	p. 72		Watch The Answer Series Videos on this topic on YouTube: English playlist here English & Afrikaans Worksheets here		
		Subatomic particles – structure of an atom	p. 75	p. 124: Q4 & 5			
		Subatomic particles – atoms are neutral	p. 76		NOTE Questions are suggested according to when learners will be able to do them.	- Make a model of an atom p. 76 (Activity) - Build an atom interactive activity here - Take an interactive walk through an atom's structure here	Afrikaans videos will be released by end of TERM 1.
		Pure substances – molecules	p. 77			- Build a molecule interactive activity here	
		Pure substances – elements	p. 77 – 78			- Simple idea for an activity to build molecules here	
		Pure substances – compounds	p. 79 – 80	p. 124: Q6		Make models of molecules p. 80 (Activity)	
		Separating pure substances	p. 81				
		Separating pure substances – electrolysis	p. 82	p. 127: Q11		Investigate decomposition through electrolysis p. 82 (Prac) – worksheets: ENG MEMO	
		Separating pure substances – heat	p. 83	p. 125: Q7		Investigate decomposition through heat p. 83 (Prac)	
		Mixtures of elements & compounds	p. 83 – 84	p. 126: Q8 & 9		Watch this video on mixtures	
		Comparison of elements, compounds and mixtures	p. 84	p. 126: Q10			
Topic summary	p. 85	p. 123: Q1					
WEEK 4 – 8 28 Apr – 29 May Lesson plan 1 Lesplan 1 Lesson plan 2 Lesplan 2 Lesson plan 3 Lesplan 3 Lesson plan 4 Lesplan 4 Lesson plan 5 Lesplan 5	Particle Model of Matter 23 school days 56% of term test on all topics*	The concept of the particle model of matter	p. 86	p. 128: Q2			
		States of matter – solids, liquids & gases	p. 87 – 88			- Interactive states of matter activities here and here - Watch this useful video about the 3 phases of matter	
		Diffusion as a property of matter	p. 88 – 90	p. 130: Q9		- Investigate diffusion in gases p. 89 (Prac) - Investigate diffusion in liquids p. 90 (Prac)	
		Summary of the properties of the states of matter	p. 91	p. 128: Q3		Recap the nature of matter with this interactive walk-through	
		Change of state	p. 92 – 95	p. 128/129: Q4 – Q8		- Investigate change of state p. 95 (Prac) – worksheets: ENG & MEMO AFR & MEMO - Interactive change of state activity here and here - Watch this useful video on changes of state	
		Mass	p. 96			- Investigate mass, volume & density PART 1 p. 98 (Prac)	
		Volume	p. 96 – 97			- Perform a virtual practical using this lab	
		The relationship between mass & volume	p. 98 – 99			- Listen to the mass, volume, density song here	
		Density	p. 99 – 104	p. 130/131: Q10 & Q11		- Investigate mass, volume & density PART 2 p. 103 (Prac) - Perform a virtual practical using this lab	
		Density of the states of matter	p. 104 – 105			Interactive density & states of matter activity here	
		Density of different materials	p. 105 – 106	p. 131/132: Q12 & Q13		- Watch this video on density	
		Floating & sinking	p. 106 – 107	p. 132/133: Q14 – Q17		- Investigate floating & sinking p. 107 (Prac) - Densities of different materials p. 108 (Activity & Prac) - Floating egg density experiment here and here	
		Expansion & contraction of materials	p. 109 – 111	p. 133: Q18; p. 135: Q21		Investigate expansion & contraction p. 111 (Prac)	
Pressure	p. 112 – 113	p. 135/136: Q22 & Q23		The effects of pressure p. 113 (Activity)			
Topic summary	p. 114	p. 127: Q1; p. 134: Q19 & Q20		Investigate the relationship between gas pressure & temperature here			

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

WEEK 9 1 – 5 June Lesson plan Lesplan	Chemical Reactions 5 school days 11% of term test on all topics*	Physical changes to matter	p. 115		Play this interactive game to test your understanding of the differences between physical and chemical changes to matter - Investigate a chemical reaction PART 1 p. 120, PART 2 p. 121 (Prac) - Interactive reactants, products and leftover simulation here - Download MANY free worksheets with memos on writing word equations here Watch this video on six chemical reactions that changed history
		Chemical changes to matter	p. 116	p. 136: Q2	
		Reactants & products	p. 117 – 121	p. 137/138: Q3 – Q7	
		Useful chemical reactions	p. 122	p. 136: Q1; p. 138: Q8	
WEEK 10 – 12 8 – 26 June Lesson plan Lesplan	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. Chemical reactions = $1/9 \times 100 = 11\%$; Introduction of the Periodic Table of Elements in week 1 forms part of the mark weighting for the topic ATOMS

See a wide variety of chemistry posters (and others) to download [here](#)

IN NEED OF SOME TAS MAGIC?



THE ANSWER SERIES

Gr 8 Natural Sciences (CAPS) 3-in-1

HARD COPY & EBOOK

Gr 8 Natuurwetenskappe (KABV) 3-in-1

HARDE KOPIE & E-BOEK



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		<i>Based on The Answer Series Gr 8 Natural Sciences 3-in-1 Class Text & Study Guide</i>					
WEEK 1 21 – 24 Jul Lesson plan Lesplan	Static Electricity 4 school days 12% of term test on all topics* Watch on YouTube	Friction and static electricity introduction	p. 140			Watch The Answer Series Videos on this topic on YouTube: English playlist here English & Afrikaans Worksheets here Simulate static discharge here Interactive simulation on balloons and static electricity here	
		Subatomic particles cause electric charge	p. 140		Afrikaans videos will be released by end of TERM 2.		
		Friction transfers electrons	p. 141 – 142	p. 199: Q2			
		Static electricity	p. 142 – 143	p. 201: Q8			
		Charged objects influence each other	p. 144 – 145				
		Attraction of a neutral object	p. 145 – 146	p. 199/200: Q3 – Q5			
		Summary of static electricity	p. 146	p. 198: Q1; p. 200/201: Q6 & Q7			
WEEK 2 – (½) WEEK 4 27 Jul – 12 Aug Lesson plan 1 Lesplan 1 Lesson plan 2 Lesplan 2	Energy Transfer in Electrical Systems 12 school days 29% of term test on all topics*	Circuits and current electricity – a simple circuit	p. 147 – 148			NOTE Not all shared resources are TAS creations – some are shared contributions from our Teacher WhatsApp group.	
		Components of a circuit – cells and batteries	p. 148 – 150		NOTE Questions are suggested according to when learners will be able to do them.		
		Components of a circuit – conducting wires	p. 150				
		Components of a circuit – resistors	p. 150 – 151				
		Components of a circuit – light bulbs	p. 151 – 152				
		Summary of the symbols used in circuit diagrams	p. 152	p. 202: Q2			
		How to draw a circuit diagram – worked example	p. 153	p. 202/203: Q3 – Q5			
		Effects of an electric circuit – heating	p. 154 – 157	p. 203/204: Q6 – Q8			
		Effects of an electric circuit – magnetic	p. 158 – 161	p. 204: Q9			
Effects of an electric circuit – chemical	p. 161 – 162	p. 205: Q10 & Q11					
Summary of basic concepts	p. 163	p. 201: Q1					
(½) WEEK 4 – (½) WEEK 6 13 – 28 Aug Lesson plan Lesplan	Series and Parallel Circuits 12 school days 24% of term test on all topics*	Series circuits	p. 164			Construct circuits using this interactive simulation Investigate cells in series (Prac) p. 165 Investigate resistors in series (Prac) p. 168 Investigate resistors in parallel (Prac) p. 172 Investigate how different metals conduct electricity (Prac) p. 175 Interactive game – test learner knowledge on circuit connections here	
		Adding cells in series	p. 164				
		Adding resistors in series	p. 165 – 169				
		Parallel circuits	p. 169				
		Adding resistors in parallel	p. 170 – 173	p. 209: Q10			
		Compare series and parallel circuits	p. 174	p. 206/207: Q2 – Q5; p. 208: Q8 & Q9			
		Metals in circuits	p. 174 – 175	p. 207: Q6; p. 209: Q11			
		Other output devices	p. 176	p. 205: Q1; p. 208: Q7; p. 210: Q12			
		The history of electricity in South Africa (not in ATP)	p. 177				
Careers in electricity (not in ATP)	p. 178						
WEEK 7 – 9 31 Aug – 18 Sept Lesson plan 1 Lesplan 1 Lesson plan 2 Lesplan 2 Lesson plan 3 Lesplan 3	Visible Light 15 school days 35% of term test on all topics*	Radiation of light	p. 178 – 179			Activity: construct a pinhole camera (Prac) p. 179 Investigate the dispersion of white light with a prism (Prac) p. 183 Investigate the formation of shadows (Prac) p. 186 Investigate how we see the colours of light with this interactive simulation Investigate the reflection of light (Prac) p. 191 Simulate how the eye sees here Investigate light refraction using this interactive simulation	
		Light travels in straight lines	p. 179 – 180	p. 213: Q5			
		Wavelength and frequency	p. 181	p. 213: Q6			
		Spectrum of visible light	p. 181 – 184				
		Opaque and transparent substances	p. 184 – 187	p. 214: Q8			
		Absorption of light	p. 187 – 189	p. 214/215: Q9 – Q11; p. 216: Q15			
		Reflection of light	p. 189 – 192	p. 212: Q3 & Q4; p. 213: Q7 p. 215/216: Q12 & Q13			
		Seeing light	p. 192 – 193				
		Refraction of light	p. 193 – 197	p. 211: Q1 & Q2; p. 216: Q14; p. 217: Q16 – Q18			
Careers in optics (not in ATP)	p. 198						
WEEK 10 21 – 23 Sept	Time for consolidation and revision – TERM 3 REVISION ENG & MEMO AFR & MEMO				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. Static electricity = 1/8.5 x 100 = 12%

GR 8

Suggested change to DBE ATP: reduced time to teach each topic to allow enough time for end-of-year examinations. There should be enough time to teach the content either way.

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Resources for GET Cognitive Analysis



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		<i>Based on The Answer Series Gr 8 Natural Sciences 3-in-1 Class Text & Study Guide</i>				
WEEK 1 & 2 6 – 16 Oct Lesson plan Lesplan	The Solar system <i>10 school days</i> 	The sun – organising the universe	p. 219 – 220	p. 242: Q2	Watch The Answer Series Videos on this topic on YouTube: English playlist here English & Afrikaans Worksheets here - Interactively explore our solar system and its planets here - ENRICHMENT: Watch how earth is protected from asteroids here - Look at some impact craters on Earth's surface here ENRICHMENT: explore the conditions of other Earth-like planets here	
		Objects around the sun – planets; dwarf planets; moons; asteroids; meteors and meteorites; comets	p. 220 – 227	p. 242/244: Q3 – Q6		
		Earth's position in the solar system	p. 227	p. 242: Q1; p. 244: Q7		
WEEK 3 19 – 23 Oct	Beyond the solar system <i>5 school days</i>	The Milky Way Galaxy	p. 228 – 229	p. 245: Q2	Take a tour through the Milky Way Galaxy here - Download and play this slideshow to see the universe organised from the biggest to the smallest distance - Watch this video on light years, hours and minutes NOTE Not all shared resources are TAS creations – some are shared contributions from our Teacher WhatsApp group.	
		Our nearest star	p. 230	p. 245: Q3		
		Light years, hours and minutes	p. 231 – 232	p. 246: Q4 – Q6		
		Beyond the Milky Way Galaxy	p. 233	p. 245: Q1		
WEEK 4 26 – 30 Oct	Looking into Space <i>5 school days</i>	Early viewing of space – stars in the night sky	p. 233 – 234		- How do we study stars? Watch here - Study more star maps from Iziko Museum here ENRICHMENT: download awesome posters of the space telescopes here - How Hubble changed astronomy – watch here - How Hubble images are made – watch here - The SALT – watch here What is the purpose of the SKA? – watch here	
		Constellations	p. 234 – 237	p. 247/248: Q2 & Q3		
		Telescopes – the basics	p. 237 – 238			
		Optical telescopes	p. 238 – 240	p. 249/250: Q4 & Q5		
		Radio telescopes	p. 241	p. 247: Q1; p. 250: Q6		
WEEK 5 2 – 6 Nov	Time for consolidation & revision <i>5 school days</i>			Practice Exam: ENG & MEMO AFR & MEMO		
WEEK 6 – 10 9 Nov – 9 Dec	Final Exams	Formal assessments: TASK 7 – Exam (60% Term 3 content and 40% Term 4 content @ min 50 marks)				

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 90 marks.

	TOPIC	% of paper	ATP teaching time	Mark allocation $\frac{\text{teaching weeks}}{\text{total weeks}} \times \text{number of marks}$
TERM 3	Static electricity	60% of the paper <i>i.e. 54 marks</i>	1 week	± 6 marks
	Energy Transfer in Electrical Systems		2.5 weeks	± 16 marks
	Serial and Parallel Circuits		2 weeks	± 13 marks
	Visible Light		3 weeks	± 19 marks
	TOTAL:		8.5 weeks	
TERM 4	The Solar System	40% of the paper <i>i.e. 36 marks</i>	2 weeks	± 18 marks
	Beyond the Solar System		1 week	± 9 marks
	Looking into Space		1 week	± 9 marks
	TOTAL:		4 weeks	

$$\frac{1}{8.5} \times 54$$