



Shuter & Shooter
PUBLISHERS (PTY) LTD



PLANNING & TRACKING

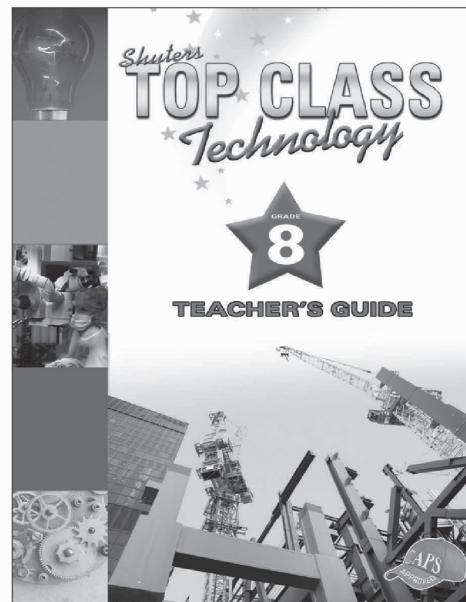
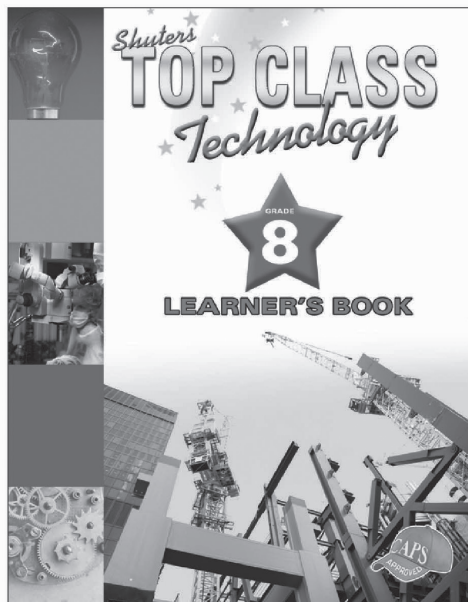
Also available for download from www.shuters.com

Shuters **TOP CLASS** *Technology*



Grade

8



PHOTOCOPIABLE

OS1001314

CUSTOMER SERVICES

THIS SERIES IS ALSO AVAILABLE AS E-BOOKS

www.shuters.com

Tel: +27 (0)33 846 8721 / 22 / 23 • Fax: +27 (0)33 846 8701

sylvie@shuter.co.za • robert@shuter.co.za • tiny@shuter.co.za • thandeka@shuters.co.za





TERM 1					
WEEK	UNIT	TOPIC	PAGE	RECORDING	REFLECTION
	1	Frame structures <i>1 week (2 hours)</i>	TG 1-7 LB 1-13		
		• Frame structures	TG 2 LB 1		
		• Case study: Electrical pylons	TG 6 LB 8		
	2	Structural members <i>1 week (2 hours)</i>	TG 8-16 LB 14-27		
		• Structures that span over space	TG 9 LB 14		
		• Structural failure	TG 14 LB 26		
	3	Communication skills <i>2 weeks (4 hours)</i>	TG 17-21 LB 28-43		
		• Purpose of graphics	TG 17 LB 28		
		• Conventions	TG 17 LB 28		
		• Working drawing	TG 18 LB 31		
		• Artistic drawing	TG 18 LB 39		
	4	Mechanical systems and control <i>2 weeks (4 hours)</i>	TG 22-28 LB 44-52		
		• Revision of mechanical advantage	TG 23 LB 44		
		• Simple mechanisms	TG 23 LB 46		
		• Gears	TG 25 LB 47		
		• Mechanisms that change the direction of movement	TG 26 LB 48		
		• Graphic skills	TG 27 LB 51		
		Formal Assessment Task 1: Mini-PAT <i>3½ weeks (7 hours)</i>	TG 29 LB 53		
		• Frame structures with mechanisms			
		Formal Assessment Task: Test	TG 36 LB 59		

TERM 2					
WEEK	UNIT	TOPIC	PAGE	RECORDING	REFLECTION
	5	The impact of technology <i>1 week (2 hours)</i>	TG 38-46 LB 62-74		
		<ul style="list-style-type: none"> The positive impact of technology 	TG 38 LB 62		
		<ul style="list-style-type: none"> Case study 1: Investigate impact of plastic shopping bags on the environment 	TG 40 LB 66		
		<ul style="list-style-type: none"> Report on evaluation of effectiveness of thicker plastic bags 	TG 41 LB 67		
	6	Technology with a positive impact on society <i>2 weeks (4 hours)</i>	TG 42-45 LB 62-74		
		<ul style="list-style-type: none"> Case study 2: Technology with a positive impact on society 	TG 43 LB 69		
		<ul style="list-style-type: none"> Development: Draw a development of an open container 	TG 45 LB 73		
		<ul style="list-style-type: none"> Practical activity: Design and make packaging for a purpose 	TG 46 LB 73		
	7	The negative impact of technological products <i>1 week (2 hours)</i>	TG 47-50 LB 76-80		
		<ul style="list-style-type: none"> Case study 3: Technological products can have a negative impact 	TG 48 LB 77		
		<ul style="list-style-type: none"> Investigate a technological product that can have a negative effect on society 	TG 48 LB 78		
		<ul style="list-style-type: none"> Class discussion on possible solutions that can counteract or compensate for negative impact of technology 	TG 49 LB 79		
	8	Structures Processing <i>1 week (2 hours)</i>	TG 50-59 LB 81-92		
		<ul style="list-style-type: none"> Revision of forces that act on material 	TG 51 LB 81		
		<ul style="list-style-type: none"> Adapting materials to withstand forces 	TG 51 LB 83		
		<ul style="list-style-type: none"> Selecting metal sections 			

TERM 2					
WEEK	UNIT	TOPIC	PAGE	RECORDING	REFLECTION
		Formal Assessment Task 2: Mini-PAT <i>3 weeks (6 hours)</i>	TG 53 LB 86		
		<ul style="list-style-type: none"> Counteracting effects of negative technology 			
		Formal Assessment Task: Test <i>½ week (1 hour)</i>	TG 58 LB 92		

TERM 3					
WEEK	UNIT	TOPIC	PAGE	RECORDING	REFLECTION
	9	Levers and gears <i>1 week (2 hours)</i>	TG 60-64 LB 95-106		
		<ul style="list-style-type: none"> Revision of levers 	TG 61 LB 95		
		<ul style="list-style-type: none"> Gear systems 	TG 62 LB 102		
	10	Mechanical advantage calculations <i>1 week (2 hours)</i>	TG 65-70 LB 107-114		
		<ul style="list-style-type: none"> Levers: mechanical advantage calculations using ratios, load/effort, load arm/effort 	TG 66 LB 107		
		<ul style="list-style-type: none"> Gears: mechanical advantage calculations using ratios 	TG 66 LB 111		
	11	Communication skills - gear systems <i>2 weeks (4 hours)</i>	TG 70-76 LB 115-127		
		<ul style="list-style-type: none"> Represent gear systems graphically 	TG 71 LB 115		
		<ul style="list-style-type: none"> Design brief with specifications for a device that will use a combination of gears 	TG 71 LB 116		
		<ul style="list-style-type: none"> Draw gear systems in isometric projection using instruments 	TG 72 LB 119		
		<ul style="list-style-type: none"> 2D sketches of gear systems 	TG 73 LB 122		
		<ul style="list-style-type: none"> System analysis – bicycle gear system 	TG 73 LB 124		
		<ul style="list-style-type: none"> Systems diagrams for a gear system 	TG 74 LB 126		

TERM 3					
WEEK	UNIT	TOPIC	PAGE	RECORDING	REFLECTION
	12	Impact of technology and bias in technology <i>1 week (2 hours)</i>	TG 77-86 LB 129-148		
		• Impact of technology	TG 77 LB 129		
		• Indigenous technology	TG 78 LB 131		
		• Bias in technology	TG 79 LB 133		
		Formal Assessment Task 3: Mini-PAT <i>4 weeks (8 hours)</i>	TG 81 LB 136		
		• A structure with a mechanism for lifting a load			
		Formal Assessment Task: Test <i>½ week (1 hour)</i>	TG 85 LB 148		

TERM 4					
WEEK	UNIT	TOPIC	PAGE	RECORDING	REFLECTION
	13	Electrical systems and control <i>1 week (2 hours)</i>	TG 87-91 LB 151-160		
		• Revision of simple circuit components	TG 87 LB 151		
		• Correct connections			
		• Drawing and setting up electrical components	TG 89 LB 156		
	14	Energy for heating, lighting and cooking <i>1 week (2 hours)</i>	TG 92-94 LB 161-165		
		• Energy for heating, lighting and cooking in rural and informal settlements	TG 92 LB 161		
		• Energy from illegal connections	TG 92 LB 162		
		• Class discussion and report: equitable sharing of resources	TG 93 LB 165		
	15	Electrochemical cells <i>1 week (2 hours)</i>	TG 94-96 LB 166-170		
		• Electrochemical cells	TG 95 LB 166		

TERM 4					
WEEK	UNIT	TOPIC	PAGE	RECORDING	REFLECTION
		<ul style="list-style-type: none"> Practical: make your own batteries 	TG 95 LB 166		
		<ul style="list-style-type: none"> Advantages and disadvantages of series and parallel batteries 			
		<ul style="list-style-type: none"> Photovoltaic cells – advantages and disadvantages 	TG 96 LB 168		
	16	Generation of electricity <i>1 week (2 hours)</i>	TG 97-100 LB 171-179		
		<ul style="list-style-type: none"> Thermal power stations 	TG 97 LB 171		
		<ul style="list-style-type: none"> Hydroelectric power stations 	TG 98 LB 172		
		<ul style="list-style-type: none"> Wind-driven turbines 	TG 98 LB 174		
		<ul style="list-style-type: none"> Alternating current 	TG 98 LB 175		
		Formal Assessment Task 4: Mini-PAT <i>3 weeks (6 hours)</i>	TG 101 LB 180		
		<ul style="list-style-type: none"> Logic gates 			
		Formal Assessment Task: End-of-year examination <i>½ week (1 hour)</i>	TG 106 LB 188		

[illegible]



Most of our titles are also available as e-Books!

For more information, contact:

- Customer Services: 033 8468721/22/23
- Visit our website www.shuters.com

Or scan the QR Business Card shown here:



Compatible with:



more than just paper behind glass

PLANNING & TRACKING

Also available for download from www.shuters.com



Shuter & Shooter

