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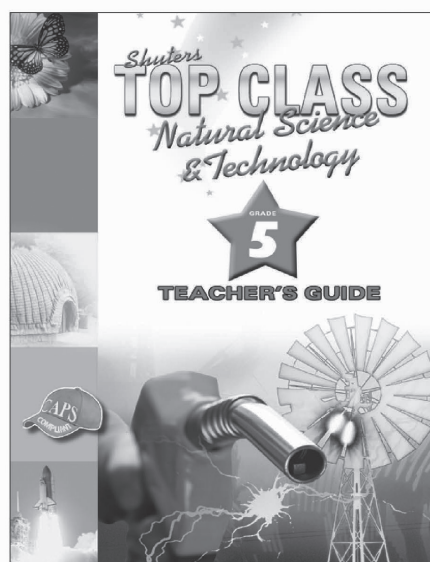
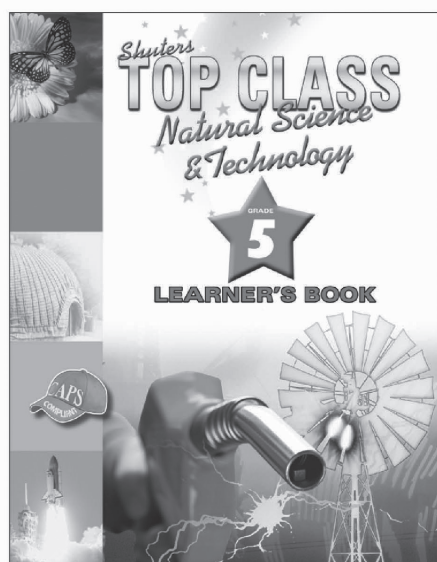
# TOP CLASS

*Natural Sciences  
and Technology*



Grade

# 5



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Term 1					
Time	Unit	Topic	Page	Recording	Reflection
<b>2 ½ weeks (8 ¾ hours)</b>	<b>1</b>	<b>Plants and animals on Earth</b>	TG – p1		
		Many different plants and animals	TG – p2 LB – p1		
		Activity 1: Count the different kinds of plants	TG – p3 LB – p3		
		Inter-dependence	TG – p4 LB – p4		
		Exercise 1	TG – p4 LB – p5		
		Animal types	TG – p4 LB – p5		
		Exercise 2	TG – p4 LB – p5		
		Vertebrates and invertebrates	TG – p5 LB – p6		
		Invertebrates	TG – p6 LB – p6		
		Exercise 3	TG – p6 LB – p8		
		What do you think?	TG – p6		
		Worksheet 1.1	TG – p7		
		Vertebrates	TG – p7 LB – p8		
		Worksheet 1.2	TG – p8		
		What do you think?	TG – p9 LB – p10		
		Exercise 5	TG – p9 LB – p10		
		Looking back at Unit 1	TG – p9 LB – p12		
<b>1 ½ weeks (5 ¼ hours)</b>	<b>2</b>	<b>Animals skeletons</b>	TG – p10		
		Skeletons of vertebrates	TG – p10 LB – p13		
		A skeleton supports and protects	TG – p11 LB – p14		
		Worksheet 2.1	TG – p11		
		What do you think?	TG – p11 LB – p15		

Term 1					
Time	Unit	Topic	Page	Recording	Reflection
		Movement	TG – p11 LB – p17		
		Activity 1: Move around	TG – p12 LB – p17		
		Worksheet 2.2	TG – p12		
		Exercise 1	TG – p12 LB – p18		
		Looking back at Unit 2	TG – p13 LB – p19		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>3</b>	<b>Skeletons as structures</b>	TG – p14 LB – p20		
		Frame and shell structures	TG – p14 LB – p20		
		Exercise 1	TG – p14 LB – p20		
		A vertebrate is a frame structure	TG – p15 LB – p21		
		Making a model of a vertebrate skeleton	TG – p15 LB – p22		
		Activity 1: Make a model of a vertebrate skeleton	TG – p15 LB – p23		
		Worksheet 3.1	TG – p15		
		Some vertebrate skeletons are shell structures	TG – p16 LB – p25		
		Worksheet 3.2	TG – p16		
<b>1 ½ weeks (5 ¼ hours)</b>	<b>4</b>	<b>Food chains</b>	TG – p17 LB – p28		
		Food and feeding	TG – p18 LB – p28		
		Green plants make their own food	TG – p18 LB – p28		
		Exercise 1	TG – p18 LB – p28		
		Animals need food	TG – p18 LB – p29		
		Worksheet 4.1	TG – p18		
		<b>Test</b>			
		Activity 1: Play the food chain game	TG – p19 LB – p31		
		Looking back at Unit 4	TG – p20 LB – p32		
<b>2 weeks (7 hours)</b>	<b>5</b>	<b>Life cycles</b>	TG – p21 LB – p34		
		Growth and development	TG – p21 LB – 34		

Term 1					
Time	Unit	Topic	Page	Recording	Reflection
		Life cycles of plants	TG – p22 LB – p34		
		Stages in the life cycle of a flowering plant	TG – p34 LB – p22		
		Exercise 1	TG – p22 LB – p36		
		Activity 1: Identify the stages of a plant cycle <b>Formal Assessment</b>	TG – p23 LB – p37		
		What do you think?	TG – p24 LB – p37		
		Worksheet 5.1	TG – p24		
		Life cycle of an animal	TG – p24 LB – p37		
		Life cycle of a vertebrate animal	TG – p25 LB – p38		
		Stages in a mammal's life cycle	TG – p25 LB – p38		
		Reproduction in elephants	TG – p25 LB – p38		
		Exercise 2	TG – p25 LB – p39		
		Exercise 3	TG – p26 LB – p40		
		More animal life cycles	TG – p26 LB – p40		
		Exercise 4	TG – p27 LB – p41		
		Worksheet 5.2	TG – p27		
		Looking back at Unit 6	TG – p28 LB – p42		

Term 2					
Time	Unit	Topic	Page	Recording	Reflection
<b>2 weeks (7 hours)</b>	<b>6</b>	<b>Metals and non-metals</b>	TG – p29 LB – p44		
		Properties of metals	TG – p30 LB – p44		
		Activity 1: Investigate and compare the properties of metal and non- metal objects	TG – p30 LB – p44		
		Activity 2: Investigate ways to make old and dull metal objects shiny again	TG – p31 LB – p45		
		Exercise 1	TG – p31 LB – p46		
		Worksheet 6.1	TG – p31		
		More properties of metals	TG – p31 LB – p46		
		Exercise 2	TG – p31 LB – p47		
		Exercise 3	TG – p32 LB – p48		
		Properties of non-metals	TG – p32 LB – p48		
		Exercise 4	TG – p32 LB – p49		
		Exercise 5	TG – p32 LB – p49		
		Looking back at Unit 6	TG – p32 LB – p50		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>7</b>	<b>Uses of metals</b>	TG – p33 LB – p51		
		More properties of metals	TG – p33 LB – p51		
		Metals conduct heat	TG – p34 LB – p51		
		Activity 1: Compare how different materials conduct heat	TG – p34 LB – p51		
		Exercise 1	TG – p34		
		Some metals are magnetic and some are not	TG – p34 LB – p52		
		Worksheet 7.1	TG – p34 LB – p52		
		Activity 2: Test metal objects to see if they are magnetic	TG – p34 LB – p53		

Term 2					
Time	Unit	Topic	Page	Recording	Reflection
		Only iron rusts	TG – p35 LB – p54		
		Activity 3: Find out which metal objects rust	TG – p35 LB – p54		
		What do you think?	TG – p35 LB – p55		
		Uses of metals	TG – p35 LB – p55		
		Exercise 2	TG – p36 LB – p55		
		Looking back at Unit 7	TG – p36 LB – p56		
<b>3 ½ weeks (12 ¼ hours)</b>	<b>8</b>	<b>Processing materials</b>	TG – p37 LB – p57		
		Combining materials	TG – p37 LB – p57		
		Materials can be processed to make a new material	TG – p37 LB – p57		
		Comparing starting materials and new materials	TG – p38 LB – p58		
		Activity 1: Mixing substances to make new materials	TG – p38 LB – p58		
		Activity 2: Mixing to make a paste of sticky glue or finger paint	TG – p39 LB – p59		
		Activity 3: Mixing and cooking to make dough for modelling	TG – p39 LB – p60		
		Activity 4: Mixing and drying to make clay materials	TG – p39 LB – p61		
		Worksheet 8.1	TG – p40		
		Exercise 1	TG – p40 LB – p62		
		Looking back at Unit 8	TG – p40 LB – p63		
<b>2 weeks (7 hours)</b>	<b>9</b>	<b>Processed materials</b>	TG – p41 LB – 64		
		Properties and uses of processed materials <b>Practical assessment</b>	TG – p42 LB – p64		
		Exercise 1	TG – p42 LB – p64		
		Strength: which materials are strong?	TG – p42 LB – p65		

Term 2					
Time	Unit	Topic	Page	Recording	Reflection
		Durability: which materials are durable?	TG – p42 LB – p66		
		Which materials are waterproof? <b>Practical Assessment</b>	TG – p43 LB – p67		
		Which materials are fire resistant?	TG – p43 LB – p68		
		Some materials are used for their interesting colours and textures	TG – p43 LB – p68		
		Exercise 2	TG – p43 LB – p68		
		Exercise 3	TG – p43 LB – p69		
		Worksheet 9.1	TG – p44		
		Traditional processing	TG – p44 LB – p69		
		Making clay pots and bricks	TG – p44 LB – p70		
		Activity 1: Making a pot from clay	TG – p45 LB – p70		
		Using plant fibres to make things	TG – p45 LB – p71		
		Exercise 4	TG – p45 LB – p74		
		Looking back at Unit 9	TG – p46 LB – p74		
Mid-year examination					

Term 3					
Time	Unit	Topic	Page	Recording	Reflection
<b>3 weeks (10 ½ hours)</b>	<b>10</b>	<b>Stored energy in fuels</b>	TG – p47 LB – p75		
		Fuels	TG – p48 LB – p75		
		Exercise 1	TG – p48 LB – p75		
		Activity 1: Look at different fuels	TG – p48 LB – p76		
		Exercise 2	TG – p48 LB – p76		
		What do you think?	TG – p49 LB – p77		
		Exercise 3	TG – p48 LB – p78		
		Worksheet 10.1	TG – p49		
		Burning fuels	TG – p50 LB – p78		
		Fuels need an input energy to start burning	TG – p50 LB – p79		
		Activity 2: Comparing three fuels	TG – p50 LB – p79		
		Fuels need air to keep burning	TG – p51 LB – p81		
		Activity 3: Find out how long a candle will burn	TG – p51 LB – p81		
		Safety with fire	TG – p51 LB – p83		
		Exercise 4	TG – p51 LB – p83		
		Worksheet 10.2	TG – p53		
		Exercise 5	TG – p53 LB – p84		
		Exercise 6	TG – p53 LB – p85		
		Looking back at Unit 10	TG – p54 LB – p85		
<b>3 weeks (10 ½ hours)</b>	<b>11</b>	<b>Energy and electricity</b>	TG – p55 LB – p87		
		Exercise 1	TG – p56 LB – p87		
		Cells and batteries	TG – p56 LB – p88		
		How do we use a cell's energy?	TG – p56 LB – p88		



Term 3					
Time	Unit	Topic	Page	Recording	Reflection
		Electrical circuit	TG – p56 LB – p89		
		Activity 1: Make a simple circuit	TG – p57 LB – p89		
		Exercise 2	TG – p57 LB – p90		
		Worksheet 11.1	TG – p57		
		Worksheet 11.2 <b>Practical Assessment Task</b>	TG – p58		
		Mains electricity	TG – p58 LB – p91		
		What do you think?	TG – p58 LB – p91		
		Using mains electricity	TG – p59 LB – p92		
		Exercise 3	TG – p59 LB – p94		
		Safety with electricity	TG – p60 LB – p95		
		Exercise 4	TG – p61 LB – p96		
		Looking back at Unit 11	TG – p61 LB – p98		
<b>1 week (3 ½ hours)</b>	<b>12</b>	<b>Energy and movement</b>	TG – p62 LB – p99		
		Different forms of energy	TG – p62 LB – p99		
		Elastic and springs	TG – p62 LB – p99		
		Activity 1: How does a clothes peg work?	TG – p63 LB – p100		
		Activity 2: How does a catapult work?	TG – p63 LB – p100		
		What do you think?	TG – p63 LB – p101		
		Exercise 1	TG – p64 LB – p101		
		Exercise 2	TG – p64 LB – p102		
		Worksheet 12.1	TG – p64		
		Worksheet 12.2	TG – p65		
		Looking back at Unit 12	TG – p65 LB – p102		

Term 3					
Time	Unit	Topic	Page	Recording	Reflection
<b>3 weeks (10 ½ hours)</b>	<b>13</b>	<b>Systems for moving things</b>	TG – p66 LB – p103		
		Wheels and axles Test	TG – p67 LB – p104		
		Exercise 1	TG – p67 LB – p105		
		Worksheet 13.1	TG – p67		
		Activity 1: Make wheels and axles	TG – p68 LB – p106		
<b>Test</b>					
		Worksheet 13.2	TG – p68		
		Activity 2: Identify different functions of axles	TG – p68 LB – p108		
		Looking back at Unit 13	TG – p69 LB – p110		

Term 4					
Time	Unit	Topic	Page	Recording	Reflection
<b>1 week (3 ½ hours)</b>	<b>14</b>	<b>Planet Earth</b>	TG – p70 LB – p111		
		Activity 1: Do you remember what you learned in Grade 4?	TG – p70 LB – p111		
		The Earth moves	TG – p71 LB – p112		
		Activity 2 Show how the Earth moves	TG – p71 LB – p112		
		Exercise 1	TG – p71 LB – p114		
		Exercise 2	TG – p71 LB – p114		
		Looking back at Unit 14	TG – p71 LB – p114		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>15</b>	<b>Surface of the Earth</b>	TG – p72 LB – p115		
		Rocks	TG – p72 LB – p115		
		Soil comes from rocks	TG – p72 LB – p116		
		Exercise 1	TG – p73 LB – p117		
		Soil types	TG – p73 LB – p118		
		Activity 1: Make your own sand grains	TG – p73 LB – p118		
		What do you think?	TG – p74 LB – p118		
		Difference between soil types	TG – p74 LB – p119		
		Exercise 2	TG – p74 LB – p119		
		Activity 2: Compare soil samples Practical Assessment	TG – p74 LB – p120		
		Activity 3: How much water can different soils hold? <b>Practical Assessment</b>	TG – p75 LB – p122		
		Activity 4: Grow seeds in different soils	TG – p75 LB – p124		
		Topsoil is important	TG – p76 LB – p125		
		Worksheet 15.1	TG – p76		
		Worksheet 15.2	TG – p76		

Term 4					
Time	Unit	Topic	Page	Recording	Reflection
		What do you think?	TG – p76 LB – p125		
		Looking back Unit 16	TG – p76 LB – p125		
<b>2 weeks (7 hours)</b>	<b>16</b>	<b>Sedimentary rocks</b>	TG – p79 LB – p126		
		Exercise 1	TG – p79 LB – p126		
		Formation of sedimentary rock	TG – p79 LB – p126		
		Exercise 2	TG – p80 LB – p127		
		Activity 1 Make a model to show how sedimentary rocks form	TG – p80 LB – p128		
		What do you think?	TG – p80 LB – p128		
		Exercise 3	TG – p80 LB – p128		
		Examples of sedimentary rocks	TG – p81 LB – p130		
		Exercise 4	TG – p81 LB – p130		
		Uses of sedimentary rocks	TG – p81 LB – p131		
		Worksheet 16.1	TG – p82		
		Looking back at Unit 16	TG – p82 LB – p132		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>17</b>	<b>Fossils</b>	TG – p83 LB – p133		
		Fossils in rock	TG – p84 LB – p133		
		Exercise 1	TG – p84 LB – p134		
		Activity 1: Make a model of a fossil	TG – p84 LB – p135		
		Fossils tell us about the history of life on Earth	TG – p84 LB – p135		
		Where do people find fossils?	TG – p85 LB – p136		
		Body and trace fossils	TG – p85 LB – p136		
		Exercise 2	TG – p85 LB – p137		
		Importance of South African fossils	TG – p85 LB – p138		

Term 4					
Time	Unit	Topic	Page	Recording	Reflection
		Exercise 3	TG – p86 LB – p139		
		Exercise 4	TG – p86 LB – p139		
		The Cradle of Humankind	TG – p85 LB – p140		
		Worksheet 17.1	TG – p87		
		Looking back at Unit 17	TG – p86 LB – p141		
		Revision			
End of year examination					







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