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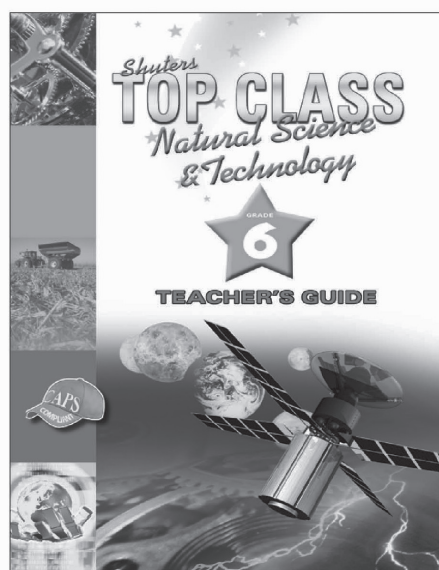
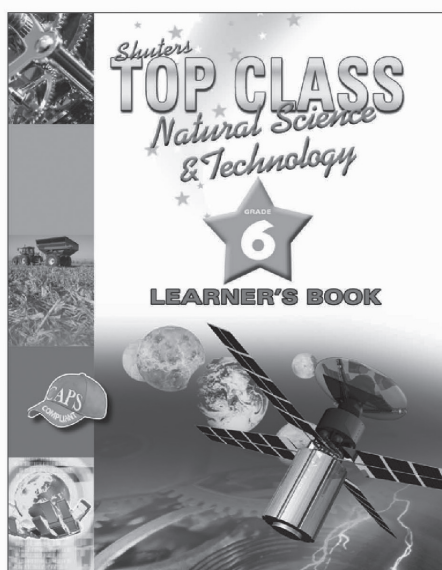
# TOP CLASS

*Natural Sciences  
and Technology*



Grade

**6**



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Term 1					
Time	Unit	Topic	Page	Recording	Reflection
<b>2 ½ weeks (8 ¾ hours)</b>	<b>1</b>	<b>Photosynthesis</b>	TG – p1 LB – p1		
		Plants and food	TG – p2 LB – p1		
		Exercise 1	TG – p2 LB – p2		
		Activity 1: How plants make food	TG – p2 LB – p3		
		The process of photosynthesis	TG – p2 LB – p3		
		Exercise 2	TG – p3 LB – p4		
		Worksheet 1.1	TG – p4		
		Plants store food as starch	TG – p5 LB – p5		
		Activity 2: Compare glucose and starch, and test them with iodine	TG – p5 LB – p5		
		Activity 3: Test foods for starch <b>Practical assessment</b>	TG – p6 LB – p6		
		Activity 4: Which foods contain starch?	TG – p7 LB – p7		
		Plants and air	TG – p7 LB – p8		
		Looking back at Unit 1	TG – p7 LB – p9		
<b>1 ½ weeks (5 ¼ hours)</b>	<b>2</b>	<b>Nutrients in food</b>	TG – p8 LB – p11		
		Worksheet 2.1	TG – p9		
		Food groups	TG – p9 LB – p11		
		Carbohydrates	TG – p9 LB – p12		
		Protein: food for growth and repair	TG – p9 LB – p12		
		Oils and fats: foods for storing energy and for protection of nerves and organs	TG – p10 LB – p13		

Term 1					
Time	Unit	Topic	Page	Recording	Reflection
		Vitamins and minerals: foods for protecting the body and building bones and teeth	TG – p10 LB – p14		
		Exercise 1	TG – p10 LB – p15		
		Exercise 2	TG – p11 LB – p16		
		Exercise 3	TG – p12 LB – p16		
		Worksheet 2.2	TG – p12		
		Processed (manufactured foods)	TG – p13 LB – p17		
		Exercise 4	TG – p13 LB – p18		
		Looking back at Unit 2	TG – p14 LB – p18		
<b>1 ½ weeks (5 ¼ hours)</b>	<b>3</b>	<b>Nutrition</b>	TG – p15 LB – p19		
		Balanced diets	TG – p15 LB – p19		
		Exercise 1	TG – p16 LB – p21		
		Guidelines to healthy eating	TG – p16 LB – p22		
		Worksheet 3.1	TG – p16		
		Diet-related diseases	TG – p17 LB – p23		
		Find out about rickets	TG – p17 LB – p23		
		Exercise 2	TG – p17 LB – p25		
		More examples of diet- related diseases	TG – p19 LB – p26		
		Looking back at Unit 3	TG – p19 LB – p26		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>4</b>	<b>Food processing</b>	TG – p21 LB – p28		
		Preparing and cooking food to make it edible	TG – p21 LB – p28		
		Exercise 1	TG – p22 LB – p29		
		Worksheet 4.1	TG – p22		
		Activity 1 Find out how maize is processed and prepared	TG – p23 LB – p30		

Term 1					
Time	Unit	Topic	Page	Recording	Reflection
		Activity 2: Compare two kinds of flour	TG – p23 LB – p31		
		Preserving food to make it last longer	TG – p23 LB – p32		
		Activity 3: A visit to the supermarket	TG – p24 LB – p33		
		Exercise 2	TG – p24 LB – p34		
		Worksheet 4.2	TG – p24		
		Fermenting food to improve its nutrient value	TG – p25 LB – p35		
		Processed foods may lose some nutrients	TG – p25 LB – p36		
		Exercise 3	TG – p25 LB – p36		
		Methods for processing food	TG – p25 LB – p37		
		Exercise 4	TG – p25 LB – p37		
		Activity 4: Choose one food and process it some way	TG – p26 LB – p38		
		Looking back at Unit 4	TG – p26 LB – p38		
<b>2 weeks (7 hours)</b>	<b>5</b>	<b>Ecosystems and food webs</b>	TG – p27 LB – p40		
		What is an ecosystem?	TG – p28 LB – p40		
		Different ecosystems	TG – p28 LB – p41		
		Living and non-living things in ecosystems	TG – p28 LB – p45		
		Exercise 1	TG – p28 LB – p45		
		Food webs	TG – p29 LB – p46		
<b>Test</b>					
		Worksheet 5.1	TG – p29		
		Activity 1: Study an ecosystem on the school grounds	TG – p31 LB – p47		
		Worksheet 5.2	TG – p32		
		Exercise 2	TG – p33 LB – p48		
		Looking back at Unit 5	TG – p35 LB – p50		

Term 2					
Time	Unit	Topic	Page	Recording	Reflection
<b>½ week (1 ¾ hours)</b>	<b>6</b>	<b>Solids, liquids, gases</b>	TG – p36 LB – p51		
		Exercise 1	TG – p49 LB – p51		
		Arrangement of particles	TG – p37 LB – p51		
		Exercise 2	TG – p38 LB – p52		
		Worksheet 6.1	TG – p39		
		Looking back at Unit 6	TG – p39 LB – p53		
<b>1 week (3 ½ hours)</b>	<b>7</b>	<b>Mixtures</b>	TG – p40 LB – p54		
		Mixtures of materials	TG – p40 LB – p54		
		Activity 1: Making mixtures from solids	TG – p41 LB – p54		
		Activity 2: Making mixtures from solids and liquids	TG – p41 LB – p55		
		Ways of separating substances in mixtures	TG – p42 LB – p55		
		Activity 3: Separating mixtures	TG – p42 LB – p52		
		Worksheet 7.1	TG – p42		
		Looking back at Unit 7	TG – p43 LB – p56		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>8</b>	<b>Solutions as special mixtures</b>	TG – p44 LB – p58		
		Solutions	TG – p45 LB – p58		
		Activity 1: Dissolve solids in water	TG – p45 LB – p58		
		Worksheet 8.1	TG – p46		
		Soluble substances	TG – p46 LB – p59		
		Worksheet 8.2	TG – p46		
		Activity 2: Which solids dissolve in water?	TG – p47 LB – p60		
		Exercise 1	TG – p47 LB – p60		
		Activity 3: Can you separate a solution by filtering?	TG – p48 LB – p62		
		Worksheet 8.3	TG – p48		

Term 2					
Time	Unit	Topic	Page	Recording	Reflection
		Separating by evaporation	TG – p49 LB – p62		
		Exercise 2	TG – p49 LB – p63		
		Saturated solutions	TG – p50 LB – p63		
		Activity 4: Make a saturated solution	TG – p50 LB – p63		
		Insoluble substances	TG – p51 LB – p64		
		Exercise 3	TG – p51 LB – p64		
		Looking back at Unit 8	TG – p52 LB – p64		
<b>1 week ( 3 ½ hours)</b>	<b>9</b>	<b>Dissolving</b>	TG – p53 LB – p66		
		Fair testing	TG – p54 LB – p66		
		Factors that affect the rate (time taken) of dissolving	TG – p55 LB – p67		
		Activity 1: How does temperature affect the rate at which sugar dissolves in water?	TG – p55 LB – p67		
		Grain size of the solute	TG – p57 LB – p70		
		Activity 2: How does grain size affect the rate at which sat dissolves in water? <b>Practical Assessment</b>	TG – p57 LB – p71		
		Worksheet 9.1	TG – p58		
		Stirring or shaking the mixture	TG – p58 LB – p72		
		Looking back at Unit 9	TG – p59 LB – p73		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>10</b>	<b>Mixtures and water resources</b>	TG – p60 LB – p74		
		Water pollution	TG – p60 LB – p74		
		Insoluble substances	TG – p61 LB – p75		
		Soluble substances	TG – p61 LB – p76		
		Living germs	TG – p61 LB – p77		

Term 2					
Time	Unit	Topic	Page	Recording	Reflection
		Activity 1: Investigate your local stream	TG – p62 LB – p77		
		Exercise 1	TG – p62 LB – p78		
		Worksheet 10.1	TG – p63		
		Importance of wetlands	TG – p63 LB – p79		
		Removing soluble and insoluble substances	TG – p63 LB – p80		
		Acting as sponges and regulating the flow	TG – p63 LB – p81		
		Activity 2: Why are wetlands important?	TG – p64 LB – p81		
		Exercise 2	TG – p64 LB – p83		
		Exercise 3	TG – p64 LB – p84		
		Worksheet 10.2	TG – p65		
		Looking back at Unit 10	TG – p65		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>11</b>	<b>Processes to purify water</b>	TG – p66 LB – p86		
		Clean water	TG – p66 LB – p86		
		Activity 1: Make a simple filter	TG – p66 LB – p86		
		Activity 2: Make a homemade sand filter	TG – p67 LB – p87		
		Worksheet 11.1	TG – p67		
		Designing, making and evaluating a simple system to clean dirty water	TG – p68 LB – p88		
		Clean municipal water	TG – p68 LB – p89		
		Looking back at Unit 11	TG – p68 LB – p90		
<b>Mid-year examination</b>					

Term 3					
Time	Unit	Topic	Page	Recording	Reflection
<b>2 ½ weeks (8 ¾ hours)</b>	<b>12</b>	<b>Electric circuits</b>	TG – p69 LB – p92		
		Exercise 1	TG – p69 LB – p92		
		A simple circuit	TG – p70 LB – p92		
		Source of energy	TG – p70 LB – p93		
		Recycling of cells and batteries	TG – p70 LB – p93		
		Conducting materials	TG – p70 LB – p94		
		A device	TG – p70 LB – p94		
		A complete circuit	TG – p71 LB – p95		
		Adding a switch	TG – p71 LB – p95		
		Activity 1: Investigate how to make a simple circuit	TG – p71 LB – p95		
		Making more switches	TG – p72 LB – p95		
		Circuit diagrams	TG – p72 LB – p98		
		Exercise 2	TG – p72 LB – p99		
		Worksheet 12.1	TG – p73		
		Looking back at Unit 12	TG – p63 LB – p100		
<b>2 weeks (7 hours)</b>	<b>13</b>	<b>Electrical conductors and insulators</b>	TG – p75 LB – p101		
		Conductors	TG – p75 LB – p101		
		Insulators	TG – p75 LB – p101		
		Activity 1: Test different materials to see if there are conductors or insulators	TG – p76 LB – p102		
		Exercise 1	TG – p76 LB – p104		
		Looking back at Unit 13	TG – p77 LB – p105		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>14</b>	<b>Systems to solve problems</b>	TG – p78 LB – p106		
		Using electric circuits	TG – p78 LB – p106		



Term 3					
Time	Unit	Topic	Page	Recording	Reflection
		Technological process	TG – p78 LB – p106		
		Worksheet 14.1	TG – p79		
		Identify a need or problem	TG – p79 LB – p106		
		Identify specifications and constraints	TG – p79 LB – p107		
		Suggest and draw a possible solution to the problem	TG – p79 LB – p108		
		Apply knowledge of simple circuits to design and make an alarm	TG – p80 LB – p109		
		Evaluate the device using specifications	TG – p81 LB – p110		
		Looking back on Unit 14	TG – p81 LB – p111		
<b>3 weeks (10 ½ hours)</b>	<b>15</b>	<b>Mains electricity</b>	TG – p82 LB – p112		
		Fossils fuels and electricity	TG – p83 LB – p112		
		Exercise 1	TG – p83 LB – p114		
		How do coal power stations make electricity	TG – p83 LB – p114		
		Exercise 2	TG – p83 LB – p115		
		Fossil fuels are non-renewable resources	TG – p84 LB – p115		
		Cost of electricity	TG – p84 LB – p116		
		Exercise 3	TG – p84 LB – p116		
		Saving electricity	TG – p85 LB – p117		
		Exercise 4	TG – p85 LB – p117		
		Illegal connections	TG – p85 LB – p118		
		Worksheet 15.1	TG – p85		
<b>Test</b>					
		Renewable ways to generate electricity	TG – p85 LB – p119		
		Worksheet 15.2	TG – p86		
		Exercise 5	TG – p86 LB – p121		
		Looking back at Unit 15	TG – p86 LB – p121		

Term 4					
Time	Unit	Topic	Page	Recording	Reflection
<b>2 ½ weeks (8 ¾ hours)</b>	<b>16</b>	<b>The Solar System</b>	TG – p88 LB – p122		
		Activity 1: Do you remember what you learned in Grade 5?	TG – p89 LB – p122		
		The Sun, Planets and Asteroids	TG – p89 LB – p122		
		Worksheet 16.1	TG – p89		
		Moons	TG – p89 LB – p122		
		Exercise 1	TG – p89 LB – p127		
		Activity 2: Make a model of the Solar System	TG – p90 LB – p127		
		Exercise 2	TG – p90 LB – p128		
		Looking back at Unit 16	TG – p91 LB – p128		
<b>1 week (3 ½ hours)</b>	<b>17</b>	<b>Movements of the Earth and planets</b>	TG – p92 LB – p129		
		Rotation (Earth)	TG – p92 LB – p129		
		Activity 1: Show how the Earth rotates	TG – p93 LB – p130		
		Exercise 1	TG – p93 LB – p130		
		Revolution	TG – p93 LB – p130		
		Activity 2: Use a model to show the movements of the Earth	TG – p94 LB – p131		
		Activity 3: Use body movements to show the movements of the Earth	TG – p94 LB – p132		
		Worksheet 17.1	TG – p95		
<b>1 week (3 ½ hours)</b>	<b>18</b>	<b>The movement of the Moon</b>	TG – p96 LB – p133		
		Rotation	TG – p96 LB – p133		
		Revolution	TG – p96 LB – p133		
		Activity 1: Show rotation and revolution of the Moon around the Earth	TG – p97 LB – p134		

Term 4					
Time	Unit	Topic	Page	Recording	Reflection
		Exercise 1	TG – p97 LB – p135		
		Exercise 2	TG – p97 LB – p135		
		Worksheet 18.1	TG – p97		
		Looking back at Unit 18	TG – p98 LB – p135		
<b>1 week (3 ½ hours)</b>	<b>19</b>	<b>Systems for looking into space</b>	TG – p99 LB – p136		
		Telescopes	TG – p99 LB – p136		
		The SALT telescope	TG – p99 LB – p137		
		The Hubble telescope	TG – p100 LB – p137		
		The SKA telescope – an exciting telescope for the future	TG – p100 LB – p138		
		Exercise 1	TG – p100 LB – p139		
		Worksheet 19.1	TG – p100		
		Worksheet 19.2	TG – p101		
		Looking back at Unit 19	TG – p101 LB – p139		
<b>2 ½ weeks (8 ¾ hours)</b>	<b>20</b>	<b>Systems to explore the Moon and Mars</b>	TG – p102 LB – p141		
		Exercise 1	TG – p103 LB – p141		
		Vehicles used on the Moon	TG – p103 LB – p141		
		Exercise 2	TG – p103 LB – p143		
		Vehicles used on Mars	TG – p103 LB – p143		
		Exercise 3	TG – p104 LB – p145		
		Exercise 4	TG – p104 LB – p145		
		Design and make a space vehicle for a space race Practical Assessment	TG – p104 LB – p145		
		Activity 1: Measure how far the different vehicles can run down a ramp <b>Practical Assessment</b>	TG – p105 LB – p146		
		Looking back at Unit 20	TG – p105 LB – p147		



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