



# St Katherine's School

# Science Curriculum Guide

All assessments are in **BOLD**.

Term	7Y	751	752	7T1	7T2	7P
1	KS2 transition tests • Becoming a Scientist • Space • Cells	KS2 transition tests  • Becoming a Scientist  • Space  • Cells	KS2 transition tests • Becoming a Scientist Space Cells	KS2 transition tests • Becoming a Scientist • Space • Particles	KS2 transition tests • Becoming a Scientist • Space • Cells	KS2 transition tests • Becoming a Scientist • Space • Particles
2	<ul><li>Particles</li><li>Space</li><li>Cells</li><li>Winter test</li></ul>	<ul><li>Particles</li><li>Space</li><li>Cells</li><li>Winter test</li></ul>	<ul><li>Particles</li><li>Space</li><li>Cells</li><li>Winter test</li></ul>	<ul><li>Particles</li><li>Space</li><li>Cells</li><li>Winter test</li></ul>	<ul><li>Particles</li><li>Space</li><li>Cells</li><li>Winter test</li></ul>	<ul><li>Particles</li><li>Space</li><li>Cells</li><li>Winter test</li></ul>
3	<ul><li>States of matter</li><li>Body systems</li><li>Forces</li></ul>	<ul> <li>States of matter</li> <li>Body system s</li> <li>Forces</li> </ul>	<ul> <li>States of matter</li> <li>Body system s</li> <li>Forces</li> </ul>	<ul> <li>States of matter</li> <li>Body system s</li> <li>Forces</li> </ul>	<ul> <li>States of matter</li> <li>Body system s</li> <li>Forces</li> </ul>	<ul> <li>States         of         matter</li> <li>Body         systems</li> <li>Forces</li> </ul>
4	<ul> <li>States of matter</li> <li>Sound</li> <li>Reactions</li> <li>Body systems</li> <li>Reproduction</li> <li>Spring test</li> </ul>	<ul> <li>Forces</li> <li>Reactions</li> <li>Body system s</li> <li>Reproduction</li> </ul> Spring test	<ul> <li>Forces</li> <li>Reactions</li> <li>Body system s</li> <li>Reproduction</li> </ul> Spring test	<ul> <li>States of matter</li> <li>Sound</li> <li>Reactions</li> <li>Body system s</li> <li>Reproduction</li> </ul>	<ul> <li>States of matter</li> <li>Sound</li> <li>Reactions</li> <li>Body system s</li> <li>Reproduction</li> </ul>	<ul> <li>Forces</li> <li>Reaction s</li> <li>Body systems</li> <li>Reprodu ction</li> <li>Spring test</li> </ul>
5	Reactions     Acids &     Alkalis     Reproduction     Light	<ul> <li>Sound</li> <li>Acids &amp; Alkalis</li> <li>Reprod uction</li> <li>Light</li> </ul>	<ul> <li>Sound</li> <li>Acids &amp; Alkalis</li> <li>Reproduction</li> <li>Light</li> </ul>	<ul> <li>Reactions</li> <li>Acids &amp; Alkalis</li> <li>Reproduction</li> <li>Light</li> </ul>	<ul> <li>Reactions</li> <li>Acids &amp; Alkalis</li> <li>Reproduction</li> <li>Light</li> </ul>	<ul> <li>Sound</li> <li>Acids &amp; Alkalis</li> <li>Reprodu ction</li> <li>Light</li> </ul>
6			• F	s and alkalis Light Revision f Year 7 Test		

CASE = Cognitive Acceleration through Science Education - throughout.

#### **Assessment**

Assessment will take place formally 4 times throughout the year. The first assessment in September will be a baseline KS2 assessment. Following this each student will be assessed in exam conditions with their teacher.

Subject		Year 7 Science	
Assessment type	Frequency	Control	Weighting
Winter assessment	Annually	Medium	20%
Spring assessment	Annually	Medium	30%
Summer assessment	Annually	Medium	50%

#### How can I support my child's learning?

You can help your child prepare for their science assessments using the links and page numbers <u>here</u>.

All assessments are shown in **BOLD**.

Term	8L1	8L2	8L3	8R1	8R2	8R3
1	<ul><li>Digestion</li><li>Space</li><li>Periodic</li><li>table</li></ul>	<ul><li>Digestion</li><li>Space</li><li>Periodic table</li></ul>	<ul><li>Digestion</li><li>Space</li><li>Periodic table</li></ul>	<ul><li>Digestion</li><li>Space</li><li>Periodic table</li></ul>	<ul> <li>Digestio n</li> <li>Periodic table</li> <li>CASE</li> </ul>	<ul><li>Digestion</li><li>Periodic table</li><li>CASE</li></ul>
2	CASE     Health     Energy     Seperation Autumn test	CASE Health Energy Seperation Autumn test	CASE Energy Seperation Autumn test	CASE Health Energy Seperation Autumn test	Health     Space     Energy Autumn test	Health     Space     Energy Autumn test
3	Health     Respiratio     n and     photosynth     esis     Energy     Seperation     CASE	Health     Respiratio     n and     photosynth     esis     Energy     Seperation     CASE	<ul><li>Health</li><li>Energy</li><li>CASE</li></ul>	<ul> <li>Health</li> <li>Respiration</li> <li>n and</li> <li>photosynthesis</li> <li>Energy</li> <li>Seperation</li> <li>CASE</li> </ul>	Seperation     Energy     CASE	<ul><li>Seperation</li><li>Energy</li><li>CASE</li></ul>
4	Respiratio n and photosynth esis     Electricity and magnetism     Ecosystem s     Metals and acids     Spring test	Respiration and photosynthe sis Electricity and magnetism Ecosystems Metals and acids Spring test	Respiratio     n and     photosynth     esis     Electricity     and     magnetism     Ecosystem     s Spring test	Respiration and photosynthe sis Electricity and magnetism Ecosystems Metals and acids Spring test	Respiration n and photosynthesis     Electricity and magnetism     Ecosystems     Spring test	Respiration and photosynthesis     Electricity and magnetism     Ecosystems     Spring test
5	Electricity and magnetism     Ecosystem s     Metals and acids     CASE	Electricity and magnetism     Ecosystem s     Metals and acids     CASE	Electricity and magnetism     Electricity and magnetism     CASE	Electricity and magnetism     Ecosystem s     Metals and acids     CASE	Electricity and magnetism     Ecosystem s     Metals and acids     CASE	Electricity and magnetism     Ecosystems     Metals and acids     CASE
6	• CAS E	• CASE	• CAS E	• CASE	Metals and acids     CASE	Metals and acids     CASE
6	Revision     End of year 8 exam     CASE (Cognitive Acceleration through Science Education)     Investigation					

#### How can I support my child's learning?

You can help your child prepare for their science assessments using the links and page numbers <u>here</u>.

#### **Assessment**

Assessment will take place formally 3 times throughout the year. Each student will be assessed in exam conditions with their teacher.

Subject		Year 8 Science	
Assessment type	Frequency	Control	Weighting
Winter assessment	Annually	Medium	20%
Spring assessment	Annually	Medium	30%
Summer assessment	Annually	Medium	50%

Term	9-1	9-2	9-3	9-4	9-5	9-6	9-7
	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance
1	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure
	The Earth	The Earth	The Earth	The Earth	The Earth	The Earth	The Earth
	CASE	CASE	CASE		CASE	CASE	CASE
	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance	Adaptation and inheritance
	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure	Motion and pressure
2	The Earth	The Earth	The Earth	The Earth	The Earth	The Earth	Revision
	Revision	Revision	Revision	CASE	Revision	Revision	Mock end of KS3
	Mock end of KS3	Mock end of KS3	Mock end of KS3	Revision	Mock end of KS3	Mock end of KS3	N.S.S
				Mock end of KS3			
	Revision	Revision	Revision	Revision	Revision	Revision	Revision
	End of KS3 exam	End of KS3 exam	End of KS3 exam	End of KS3 exam	End of KS3 exam	End of KS3 exam	End of KS3 exam
	GCSE:	GCSE:	GCSE:	GCSE:	GCSE:	GCSE:	GCSE:
3	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere
	Energy	Energy	Energy	Energy	Energy	Energy	The Earth's resources
	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition
	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition	Adaptations, interdepende nt & competition
	Ecosystems	Ecosystems	Ecosystems	Ecosystems	Ecosystems	Ecosystems	Ecosystems
4	Energy	Energy	Energy	Energy	Energy	Energy	Energy
	Energy resources	Energy resources	Energy resources	Energy resources	Energy resources	Energy resources	The Earth's atmosphere
	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's atmosphere	The Earth's resources Chemistry
	The Earth's resources	The Earth's resources	The Earth's resources	The Earth's resources	The Earth's resources	The Earth's resources	test

	Ecosystems	Ecosystems	Ecosystems	Ecosystems	Ecosystems	Ecosystems	Ecosystems
5	Energy resources	Energy resources	Energy resources	Energy resources	Energy resources	Energy resources	Energy
D .	The Earth's resources	The Earth's resources	The Earth's resources	The Earth's resources	The Earth's resources	The Earth's resources	Energy resources
	Biodiversity & ecosystems	Biodiversity & ecosystems	Biodiversity & ecosystems	Biodiversity & ecosystems	Biodiversity & ecosystems	Biodiversity & ecosystems	Biodiversity & ecosystems
	Folly farm trip	Folly farm trip	Folly farm trip	Folly farm trip Revision	Folly farm trip	Folly farm trip	Folly farm trip
6	Revision	Revision	Revision		Revision	Revision	Revision
	Biology test	Biology test	Biology test	Biology test Chemistry	Biology test	Biology test	Biology test
	Chemistry test	Chemistry test	Chemistry test	test	Chemistry test	Chemistry test	Chemistry test
	Physics test	Physics test	Physics test	Physics test	Physics test	Physics test	

You can support your child in preparing for the end of KS3 science exam using the links <u>here</u>. You can support your child in preparing for their GCSE tests using the links <u>here</u>.

#### **Assessment**

Assessment will take place formally 5 times throughout the year. Each student will be assessed in exam conditions with their teacher.

Subject		Year 9 Science	
Assessment type	Frequency	Control	Weighting
Term 1 assessment	Annually	Medium	10%
End of KS3 exam	Annually	Medium	70%
GCSE biology, chemistry and physics tests	Annually	Medium	20%

# **Triple Science AQA**

Term	Biology	Chemistry	Physics
1	<ul><li>B1 Cells</li><li>B2 Cell division</li><li>Test</li></ul>	<ul> <li>C1 Atomic structure</li> <li>C2 The periodic table</li> <li>Test</li> </ul>	<ul> <li>P1 Conservation and dissipation of energy</li> <li>P2 Energy transfer by heating</li> <li>Test</li> <li>P6 Molecules and matter</li> </ul>
2	<ul> <li>B3 Organisation and the digestive system</li> <li>B4 Organising animals and plants</li> <li>Test</li> </ul>	<ul> <li>C3 Structure and bonding</li> <li>C4 Chemical calculations</li> <li>Test</li> </ul>	<ul> <li>P7 Radioactivity</li> <li>Test</li> <li>P4 Electric circuits</li> </ul>
3	B5 Communicable disease     B6 Preventing and treating disease	<ul><li>C5 Chemical Change</li><li>C6 Electrolysis</li><li>Test</li></ul>	<ul><li>P5 Electricity in the home</li><li>Test</li></ul>
4	<ul> <li>B7 Non communicable disease</li> <li>Test</li> <li>B8 Photosynthesis</li> <li>B9 Respiration</li> <li>Test</li> </ul>	<ul> <li>C7 Energy changes</li> <li>C8 Rates and equilibrium</li> <li>Test</li> </ul>	<ul><li>P8 Forces in balance</li><li>P9 Motion</li></ul>
5	<ul> <li>B10 The human nervous system</li> <li>B11 Hormonal communication</li> <li>B12 Homeostasis</li> </ul>	<ul> <li>C9 Crude oil and fuels</li> <li>C10 Organic reactions</li> </ul>	<ul> <li>P10 Force and motion</li> <li>P11 Force and pressure</li> <li>Test</li> </ul>
6	<ul> <li>Revision</li> <li>Mock Exams</li> <li>B12 Homeostasis</li> <li>Test</li> </ul>	<ul> <li>Revision</li> <li>Mock Exams</li> <li>C11 Polymers</li> <li>C12 Chemical analysis</li> <li>Test</li> </ul>	<ul> <li>Revision</li> <li>Mock Exams</li> <li>P11 Force and pressure</li> </ul>

You can find links and suggestions to support your child with their triple science assessments <u>here</u>. Students will be set 45 minutes of biology, chemistry and physics homework every week.

#### **Assessment**

Assessment will take place formally fifteen times throughout the year via end of topic tests. There will also be a mock examination in each subject.

Subject		Year 10 Biology	
Assessment type	Frequency	Control	Weighting
End of topic tests	Five times	Medium	30%
Mock examination	Once	High	70%

Subject		Year 10 Chemistry	
Assessment type	Frequency	Control	Weighting
End of topic tests	Five times	Medium	30%
Mock examination	Once	High	70%

Subject		Year 10 Physics	
Assessment type	Frequency	Control	Weighting
End of topic tests	Five times	Medium	30%
Mock examination	Once	High	70%

# **Combined Science - Trilogy AQA**

Term	Biology	Chemistry	Physics
1	<ul><li>B1 Cells</li><li>B2 Cell division</li><li>Tests</li></ul>	<ul> <li>C1 Atomic structure</li> <li>C2 The periodic table</li> <li>Test</li> </ul>	<ul> <li>P1 Conservation and dissipation of energy</li> <li>P2 Energy transfer by heating</li> </ul>
2	<ul> <li>B3 Organisation and the digestive system</li> <li>B4 Organising animals and plants</li> <li>Test</li> </ul>	<ul> <li>C3 Structure and bonding</li> <li>C4 Chemical calculations</li> <li>Test</li> </ul>	<ul> <li>Test</li> <li>P6 Molecules and matter</li> <li>P7 Radioactivity</li> <li>Test</li> </ul>
3	B5 Communicable diseases	C5 Chemical change	<ul> <li>P4 Electrical circuits</li> <li>P5 Electricity in the home</li> <li>Test</li> </ul>
4	<ul> <li>B6 Preventing and treating disease</li> <li>B7 Non communicable disease</li> <li>Test</li> </ul>	<ul><li>C6 Electrolysis</li><li>C7 Energy changes</li><li>Test</li></ul>	P8 Forces in balance
5	<ul> <li>B8 Photosynthesis</li> <li>B9 Respiration</li> <li>Test</li> <li>B10 The human nervous system</li> </ul>	C8 Rates and equilibrium	<ul> <li>P9 Motion</li> <li>P10 Forces and motion</li> <li>Test</li> </ul>
6	<ul><li>Revision</li><li>Mock Exams</li></ul>	<ul><li>Test</li><li>Revision</li><li>Mock Exams</li><li>Test</li></ul>	<ul> <li>Revision</li> <li>Mock exams</li> <li>P10 Forces and motion</li> </ul>

You can find links and suggestions to support your child with their combined science assessments <u>here</u>. Students will be set 30 minutes of biology, chemistry and physics homework every week.

#### **Assessment**

Assessment will take place formally fifteen times throughout the year via end of topic tests. There will also be three mock examinations.

Subject		Year 10 Combined Science	
Assessment type Frequency		Control	Weighting
End of topic tests	Nine times spread throughout the year	Medium	30%
Mock examinations	Three times in the summer	High	70%

# **Triple Science AQA**

Term	Biology	Chemistry	Physics
1	<ul> <li>B8 Photosynthesis</li> <li>B9 Respiration</li> <li>Test</li> <li>B10 Human nervous system</li> </ul>	<ul> <li>C7 Energy changes</li> <li>C8 Rates and equilibrium</li> <li>Test</li> </ul>	<ul><li>P8 Forces in balance</li><li>P9 Motion</li></ul>
2	<ul> <li>B11 Hormonal coordination</li> <li>B12 Homeostasis</li> <li>Mock exams</li> </ul>	<ul> <li>C9 Crude oil and fuels</li> <li>C10 Organic reactions</li> <li>C11 Polymers</li> <li>Test</li> <li>Mock exams</li> </ul>	<ul> <li>P10 Forces and motion</li> <li>P11 Forces and pressure</li> <li>Test</li> <li>Mock exams</li> </ul>
3	<ul> <li>Test</li> <li>B13 Reproduction</li> <li>B14 Variation and evolution</li> </ul>	<ul> <li>C12 Chemical analysis</li> <li>C15 Using our resources</li> <li>Test</li> </ul>	<ul> <li>P12 Wave properties</li> <li>P13 Electromagnetic waves</li> <li>Test</li> <li>P14 Light</li> </ul>
4	<ul> <li>B15 Genetics and evolution</li> <li>Test</li> <li>Mock exams</li> <li>Revision</li> </ul>	Mock exams     Revision	<ul> <li>P15 Electromagnetism</li> <li>Test</li> <li>P16 Space</li> <li>Revision</li> <li>Mock exams</li> </ul>
5&6	Revision     Final Exams		

You can find links and suggestions to support your child with their triple science assessments <u>here</u>. Students will be set 45 minutes of biology, chemistry and physics homework every week.

#### **Assessment**

Assessment will take place formally twelve times throughout the year via end of topic tests. There will also be three mock examinations in each subject.

Subject		Year 11 Biology	
Assessment type Frequency		Control	Weighting
End of topic tests	Four times	Medium	30%
Mock examination Three times		High	70%

Subject		Year 11 Chemistry		
Assessment type Frequency		Control	Weighting	
End of topic tests	Four times	Medium	30%	
Mock examination Three times		High	70%	

Subject		Year 11 Physics		
Assessment type Frequency		Control	Weighting	
End of topic tests Four times		Medium	30%	
Mock examination Three times		High	70%	

# **Combined Science - Trilogy AQA**

Term	Biology	Chemistry	Physics
1	<ul> <li>B8 Photosynthesis</li> <li>B9 Respiration</li> <li>Test</li> <li>B10 The human nervous system</li> <li>B11 Hormonal coordination</li> <li>Test</li> </ul>	<ul> <li>C5 Chemical change</li> <li>C6 Electrolysis</li> <li>Test</li> <li>C7 Energy changes</li> <li>C8 Rates and equilibrium</li> <li>Test</li> </ul>	<ul> <li>P7 Radioactivity</li> <li>P8 Forces in balance</li> <li>P9 Motion</li> <li>P10 Forces and motion</li> <li>Test</li> </ul>
2	<ul> <li>B13 Reproduction</li> <li>B14 Variation and evolution</li> <li>Mock exams</li> </ul>	C9 Crude oil and fuels     Mock exams	<ul> <li>P12 Wave properties</li> <li>P13 Electromagnetic waves</li> <li>Mock exams</li> </ul>
3	<ul> <li>B15 Genetics and evolution</li> <li>Test</li> <li>B16 Adaptations, inheritance and competition</li> </ul>	C12 Chemical analysis	<ul><li>P15 Electromagnetism</li><li>Test</li></ul>
4	<ul> <li>Mock exams</li> <li>B17 Organising an ecosystem</li> <li>B18 Biodiversity and ecosystems</li> <li>Test</li> </ul>	Mock exams     Revision	Mock exams     Revision
5	<ul> <li>Mock exams</li> <li>Revision</li> <li>Final Exams</li> </ul>		

You can find links and suggestions to support your child with their combined science assessments <u>here</u>. Students will be set 30 minutes of biology, chemistry and physics homework every week.

#### **Assessment**

Assessment will take place formally fifteen times throughout the year via end of topic tests. There will also be three mock examinations.

Subject			
Assessment type Frequency		Control	Weighting
End of topic tests	Fifteen times spread throughout the year	Medium	30%
Mock examinations	Nine times spread throughout the year	High	70%