Contents and specification coverage

Topic	Page(s)	OCR A	OCR B	AQA A	AQA B	Edexcel	CCEA	WJEC	Level F = foundation H = higher
1 How science works									
Bingo: investigating I — gathering data	2–3	✓	✓	✓	✓	✓	✓	✓	FH
Dominoes: investigating II — assessing data	4–8	✓	✓	✓	✓	✓	✓	✓	FH
Spectrum: science in society	9	✓	✓	✓	✓	✓	✓	✓	FH
Matching: the nature of science	10–15	✓	✓	✓	✓	✓	✓	✓	FH
2 Body response and control									
Triominoes: the nervous system	17–25			✓	✓	✓	✓	✓	FH
Buzzwords: stimulus, response and stability	26	✓	✓	✓	✓	✓	✓	✓	FH
Play your cards right: hormones	27–29		✓	✓	✓	✓	✓		FH
3 Keeping healthy									
Bingo: drugs and addiction	31–32		✓	✓	✓	✓	✓	✓	FH
Matching: infectious diseases	33–37	✓	✓	✓	✓	✓	✓		FH
4 Evolution and environment									
Bingo: habitats and adaptations	39–40	✓	✓	✓	✓	✓	✓	✓	FH
Triominoes: variation and genetics	41–48	✓	✓	✓	✓	✓	✓	✓	FH
Buzzwords: human impact on the environment	49	✓	✓	✓	✓	✓	✓	✓	FH
Play your cards right: evolution	50–52	✓	✓	✓	✓	✓	✓	✓	FH
Crossword: humans and the environment	53–54		✓	✓	✓	✓	✓		FH
Crossword: humans and the environment	55–56		✓	✓	✓	✓	✓		H
5 Rocks									
Play your cards right: rocks, building materials and chemistry	58–60	✓	✓	✓	✓		✓		FH
Bingo: metals from the ground	61–62	✓	✓	✓	✓				FH
Triominoes: fuels	63–71	✓	✓	✓	✓	✓	✓	✓	H
6 Oil, Earth and atmosphere									
Buzzwords: oils and polymers	73	✓	✓	✓	✓	✓	✓	✓	FH
Crossword: polymers and ethanol	74–75	✓	✓	✓	✓		✓		F
Crossword: polymers and ethanol	76–77	✓	✓	✓	✓		✓		H
Diamonds: plant oils	78–83			✓	✓				FH
Dominoes: Earth and atmosphere	84–88	✓	✓	✓	✓		✓	✓	FH
7 Energy and electricity									
Triominoes: energy transfer by heating	90–97		✓	✓	✓			✓	FH
Matching: efficiency	98–102		✓	✓	✓	✓	✓	✓	FH
8 Radiation and the universe									
Bingo: electromagnetic (EM) radiation	104–105	✓	✓	✓	✓	✓	✓	✓	FH

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Triominoes: uses and dangers of radioactive emissions	106–114	✓	✓	✓	✓		✓		FH
Buzzwords: the universe	115	✓	✓	✓	✓	✓	✓	✓	FH
Play your cards right: the universe	116–118	✓	✓	✓	✓	✓	✓	✓	FH

Teacher answers	Page(s)
Crosswords	119

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Matching: the nature of science

1

Term	Description	
Cause	Conclusion	Correlation
Data	Evidence	Hypothesis

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Matching: the nature of science

1

Observation	Opinion	Pattern
Phenomenon	Prejudice	Relationship
Reliable	Research	Scientific model

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Matching: the nature of science

1

Scientific theory	Test	Valid
Something observable	Relevant to the question being researched or based on the data collected	Able to be repeated and checked by others
Made of statements by an individual or a group that may or may not be able to be tested scientifically	A regular association between variables that can be said using mathematical language	A way of understanding that has never produced unsuccessful predictions

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Matching: the nature of science

A way of understanding that can produce successful and useful predictions, but not necessarily all of the time	A suggested explanation that can make predictions that can then be tested to see if the explanation is false	Opinion formed before looking at evidence
Accumulated observations	A comparison of variables with results that are not random	Statements of the meaning of evidence
Pieces of information	A phenomenon that comes before another one and is one of a set of necessary events for the second to happen	Usually a check of the prediction made by a hypothesis

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Matching: the nature of science

1

Looking for the answer to a question	A pattern involving two variables, but with change in one not necessarily causing change in the other. The change could, for example, be due to a third factor	Experience, using the senses

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Teacher answers

Although some descriptions apply to more than one term there is only one correct solution. The alternative possible matches promote discussion.

Term	Description
Phenomenon	Something observable
Valid	Relevant to the question being researched or based on the data collected
Reliable	Able to be repeated and checked by others
Opinion	Made of statements by an individual or a group that may or may not be able to be tested scientifically
Relationship	A regular association between variables that can be said using mathematical language
Scientific theory	A way of understanding that has never produced unsuccessful predictions
Scientific model	A way of understanding that can produce successful and useful predictions, but not necessarily all of the time
Hypothesis	A suggested explanation that can make predictions that can then be tested to see if the explanation is false
Prejudice	Opinion formed before looking at evidence
Evidence	Accumulated observations
Pattern	A comparison of variables with results that are not random
Conclusion	Statements of the meaning of evidence
Data	Pieces of information
Cause	A phenomenon that comes before another one and is one of a set of necessary events for the second to happen
Test	Usually a check of the prediction made by a hypothesis
Research	Looking for the answer to a question
Correlation	A pattern involving two variables, but with change in one not necessarily causing change in the other. The change could, for example, be due to a third factor
Observation	Experience, using the senses

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