



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

GCSE

**Science A (4461) /
Chemistry (4421)**

Specification A

CHY1AP, CH1ASF & CH1ASH

Mark Scheme

2010 Examination – November Series

**The blank answer sheet for this component can be
found at the end of this document.**

This component is an objective test for which the following list indicates the correct answers used in marking the candidates' responses.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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GCSE
SCIENCE A (4461) / CHEMISTRY (4421)
 Objective Test Answer Key
CHY1AP (Products from Rocks)
November 2010
 Foundation Tier

Question	Key			
One	A	Iron		1
	B	Aluminium		2
	C	Copper		4
	D	Calcium		3
Two	A	will benefit the quarry owners		4
	B	will benefit people living close to the quarry		1
	C	will cause problems for the quarry owners		3
	D	will cause problems for local people		2
Three	A	Biodiesel		3
	B	Methane		2
	C	Animal waste		1
	D	Dried sludge		4
Four	A	kerosene		2
	B	petroleum gas		1
	C	petrol		3
	D	bitumen		4
Five	A	uses another metal		3
	B	does not use a chemical reaction		2
	C	could be done in a blast furnace		4
	D	is called electrolysis		1
	A	B	C	D
Six	2	3	2	3
Seven	1	4	3	2
Eight	3	4	2	1
Nine	3	2	1	2

GCSE
SCIENCE A (4461) / CHEMISTRY (4421)

Objective Test Answer Key

CHY1AP (Products from Rocks)

November 2010

Higher Tier

Question	Key			
One	A	uses another metal		3
	B	does not use a chemical reaction		2
	C	could be done in a blast furnace		4
	D	is called electrolysis		1
Two	A	Water		4
	B	Calcium oxide		3
	C	Calcium carbonate		1
	D	Carbon dioxide		2
	A	B	C	D
Three	3	4	2	1
Four	3	2	1	2
Five	3	4	2	3
Six	3	2	1	4
Seven	2	3	1	4
Eight	3	2	2	2
Nine	1	2	3	4

Unit : CHY1AP CHEMISTRY UNIT 1A

Centre :

Candidate Number :

UCI :

Series : BG10

Candidate Name :

For completion by the Examination Invigilator. Please fill this circle if the candidate is absent: **HIGHER TIER**

Instructions on how to complete this answer sheet are given on the question paper. Please make sure you follow them carefully.

Questions ONE to NINE Choose one response 1 - 4 for each of the parts A - D

QUESTION ONE		1	2	3	4
1A	uses another metal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	does not use a chemical reaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	could be done in a blast furnace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	is called electrolysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	Water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	Calcium oxide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	Calcium carbonate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	Carbon dioxide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE		1	2	3	4
3A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR		1	2	3	4
4A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FIVE		1	2	3	4
5A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SIX		1	2	3	4
6A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SEVEN		1	2	3	4
7A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION EIGHT		1	2	3	4
8A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION NINE		1	2	3	4
9A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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FOUNDATION TIER

Instructions on how to complete this answer sheet are given on the question paper. Please make sure you follow them carefully.

Questions ONE to NINE Choose one response 1 - 4 for each of the parts A - D

QUESTION ONE		1	2	3	4
1A	Iron	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1B	Aluminium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1C	Copper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1D	Calcium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION TWO		1	2	3	4
2A	will benefit the quarry owners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2B	will benefit people living close to the quarry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2C	will cause problems for the quarry owners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2D	will cause problems for local people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION THREE		1	2	3	4
3A	Biodiesel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3B	Methane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3C	Animal waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3D	Dried sludge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FOUR		1	2	3	4
4A	kerosene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4B	petroleum gas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4C	petrol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4D	bitumen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION FIVE		1	2	3	4
5A	uses another metal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5B	does not use a chemical reaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5C	could be done in a blast furnace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5D	is called electrolysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SIX		1	2	3	4
6A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION SEVEN		1	2	3	4
7A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION EIGHT		1	2	3	4
8A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

QUESTION NINE		1	2	3	4
9A		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9B		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9C		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9D		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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