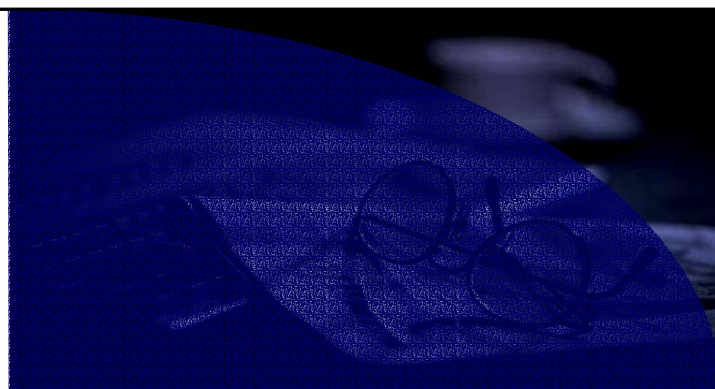


assessment for learning

year 8...mark scheme



Science Interactive LTD. PO BOX 50764 LONDON NW6 9AT

web: [www: science-interactive.co.uk](http://www.science-interactive.co.uk)

8F Compounds and mixtures...mark scheme

Assessment for learning...year 8 (level 3-6)

Question 1:

- (a) any **two** from 2
- good electrical conductor
 - good thermal conductor
accept 'good conductor'
 - melting point above room temperature
- (b) (i) magnesium sulphide 1
*do **not** accept 'magnesium sulphate'*
- (ii) any **two** from 2
- good electrical conductor
 - good thermal conductor
accept 'good conductor'
 - magnetic

[5]

Question 2:

- (a) copper 1
oxygen
carbon

*answers may be in any order
all **three** elements are required for the mark
accept correct symbols for the elements
accept 'sulphur' as one of the three elements*

- (b) any **one** from 1
- copper sulphide
 - copper oxide
 - sulphur dioxide
 - carbon dioxide
- (c) sulphur dioxide 1
- do not accept 'carbon dioxide'*

[3]

Question 3:

- (a) (i) helium is less dense than air 1
- accept 'helium is lighter than air'*
- accept 'the upthrust on the helium balloon is greater than the weight of the balloon'*
- (ii) any **one** from 1
- the air in the balloon is denser than the air in the room
- accept 'the air in the balloon is compressed'*
- the rubber has weight
- accept 'rubber is heavier than air'*
- accept 'the rubber is denser than air'*
- accept 'the upthrust on the air balloon is less than the weight of the balloon'*
- (b) any **one** from 1
- air is a mixture
- accept 'air contains different gases'*
- air is not a single element **or** compound
- 'air is not a single substance' is not sufficient*
- (c) (i) B 1
- (ii) C 1
- (iii) G 1
- (d) (i) any **one** from 1
- helium particles are smaller

*accept 'molecules' or 'atoms'
for particles*

- helium particles move faster
- (ii) any **one** from 1
 - aluminium particles **or** atoms are closer together
 - rubber particles **or** molecules are further apart

*accept 'rubber particles or
molecules have bigger gaps
between them'*

[8]

Question 4:

- (a) (i) B 1
if more than one letter is given award no mark
- (ii) C 1
if more than one letter is given award no mark

- (b) are faster **or** quicker 1

- (c) (i) goes down **or** decreases 1
*accept 'goes back to where it started'
or 'goes back to diagram 1'
or 'goes to same level'*

- (ii) more gas molecules were going out of the porous pot 1
than going in **or** fewer molecules were going in than coming out
*accept 'hydrogen can escape quicker than air
can get in'
do **not** accept 'pressures equalised'*

- (d) 4

substance	it is an element	it is a compound	it is a mixture	number of atoms in one molecule
carbon dioxide		√		3
oxygen	√			2

*if more than one box is ticked in either row
award no mark for that part, although the mark
for the number of atoms may still be awarded*

[9]

Question 5:

- (a) (i) any **one** from 1
- gold
 - iron
 - magnesium
- (ii) any **one** from 1
- sulphur
 - phosphorus
- (iii) iron 1
- (iv) iron sulphide 1
- (b) magnesium sulphide 1
- do **not** accept 'magnesium sulphite' or 'magnesium sulphate'*

[5]