Year 8 Reaction and Magnets HW Questions

31 minutes

44 marks

M1. (a) any **two** from

- good electrical conductor
- good thermal conductor
  accept 'good conductor'
- melting point above room temperature

2 (L5)

(b) (i) magnesium sulphide
*do **not** accept 'magnesium sulphate'*

1 (L5)

(ii) any **two** from

- good electrical conductor
  accept 'good conductor'
- good thermal conductor
- magnetic

2 (L5)

[5]

##

(a) • B ✓
C ✓

***both** answers are required for the mark*
if more than two boxes are ticked, award no mark

1 (L6)

(b) any **two** from

- it conducts electricity
- it conducts heat
  one mark may be awarded for 'it is a good conductor' if a reference to heat or electricity is not given
- it is ductile or malleable
  'it bends' is insufficient
- it has a high melting **or** boiling point
  accept 'it is shiny'
  accept 'it is sonorous'
  accept 'it forms basic oxides'
  'it is strong or hard' is insufficient

2 (L5)

(c) copper oxide
accept 'CuO'
*do **not** accept 'copper dioxide'*

1 (L6)

(d) The atoms have combined in a different way to make a new substance. ✓

*if more than **one** box is ticked, award no mark*

1 (L6)

[5]

M3. (a) (i) any **one** from

- iron
- copper

accept calcium

1 (L5)

(ii) any **one** from

- sulphur
- chlorine

*accept 'oxygen' **or** 'carbon'*

1 (L5)

(iii) any **two** from

- calcium carbonate
- calcium oxide
- carbon dioxide
- iron sulphide

accept 'copper chloride'

answers may be in either order

***both** answers are required for the mark*

1 (L6)

(b) any **one** from

- the iron reacted **or** combined with sulphur

accept 'the iron gained sulphur'
***or** 'sulphur was added to the iron'*
accept 'the iron has joined with the sulphur'
*do **not** accept 'iron has mixed with the sulphur'*
*do **not** accept 'sulphur or iron added a new layer'*

- the sulphur had mass

accept 'the sulphur weighed 0.8 g'

1 (L6)

(c) copper chloride

1 (L6)

[5]

M4. (a) E
D
C
A
B

all five *in the correct order are required for the mark*

1

-

(b) (i) B

1

E

1

C or A

1

[4]

-

M5. (a)

magnesium		Mg	*answers must be in the correct order*
zinc	**or**	Zn	***all four*** *are required for the mark*
iron		Fe	
copper		Cu	

1

(b) **one mark is for the left hand box;**
the other mark is for the two right hand boxes

*	dark grey	*	brown	*accept 'copper coloured' or 'black' for brown*
			colourless	*accept 'almost colourless'*

2

(c) $Mg + CuSO_4$ **or** Mg and $CuSO_4$

*Accept 'the right hand' **or** 'the fourth one'*

1

[4]

M6. (a) (i) copper sulphate

*do **not** accept '$CuSO_4$'*

1 (L7)

(ii) zinc sulphate

accept '$ZnSO_4$'

1 (L7)

copper

accept 'Cu'

answers may be in either order

1 (L7)

(iii) any **one** from

- magnesium
- iron
- aluminium
- tin

*do **not** accept 'sodium' **or** 'potassium' **or** 'lithium' **or** 'calcium' **or** 'lead' **or** 'copper'*

1 (L7)

(b) none **or** stays the same **or** zero

accept '0'

1 (L7)

(c) none **or** stays the same

1 (L7)

[6]

M7. marks may be awarded for part (a) if the magnets are correctly labelled in part (b) and no answer is given in part (a)

(a) • Magnet A

***both** poles are required for the mark*

1 (L4)

• Magnet C

***both** poles are required for the mark*

1 (L4)

(b) • repel

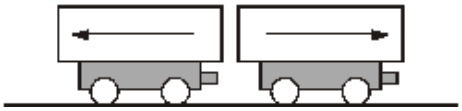
• attract

answers must be in the correct order

***both** answers are required for the mark*

1 (L4)

(c) •



both *arrows are required for the mark*

1 (L4)

(d) • it is attracted

accept 'it gets faster'

1 (L4)

• nothing

accept 'it is not attracted or repelled'
accept 'it is not attracted'
accept 'it is not repelled'
'they stick together' is insufficient
do ***not*** *accept 'it repels'*

1 (L4)

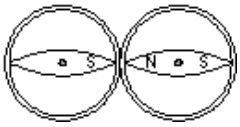
[6]

M8. (a) N at top and S at bottom

both *poles are required for the mark*

1 (L3)

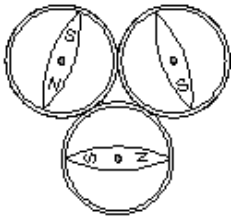
(b)



all three *poles are required for the mark*

1 (L4)

(c)



all five *poles are required for the mark*

1 (L4)

(d) steel

accept 'iron'
accept 'nickel'
accept 'cobalt'

1 (L3)

[4]

M9. (a) gravity

accept 'weight'

1 (L5)

magnetic force **or** magnetism

*accept 'repulsion' **or** 'upthrust'*
answers may be in either order
*do **not** accept 'air resistance'*

1 (L5)

(b) (i) 12

1 (L5)

(ii) any **one** from

- the paper cup stopped moving
  accept 'it hit the bottom'
- the paper cup reached the bottom magnet
  accept 'the paper cup could not go any further'

1 (L6)

(c) any **one** from

- iron is magnetic
  accept 'aluminium is not magnetic'
- iron nails are attracted to a magnet
  accept 'the rivets are not attracted to a magnet'
- there is a magnetic force on the iron
  *do **not** accept 'aluminium **or** rivets are less magnetic'*
  *do **not** accept 'iron **or** nails are more magnetic than aluminium **or** rivets'*

1 (L6)

[5]