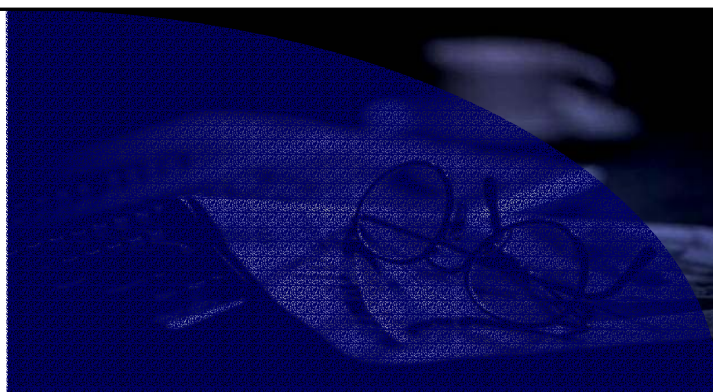


assessment for learning

year 7...mark scheme



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7G Particle model of solids liquids and gases...mark scheme

Assessment for learning...year 7 (level 3-6)

Question 1:

- (a) (i) liquid 1
*if more than one box is ticked award no mark
accept 'A' in the liquid box instead of a tick*
- petrol **or** oil **or** diesel 1
*accept a brand name
or paraffin **or** kerosene*
- (ii) gas 1
*if more than one box is ticked award no mark
accept 'B' in the gas box instead of a tick*
- gas **or** natural gas **or** calor 1
*accept a brand name
gas **or** butane **or** propane
do **not** accept 'hydrogen' **or** methane **or** camping
gaz*
- solid 1
*if more than one box is ticked award no mark
accept 'C' in the solid box instead of a tick*
- coal **or** coke **or** wood **or** charcoal 1
*accept a brand name **or** 'peat'*
- (b) any **two** from 2
- carbon dioxide
 - water *accept 'steam'*
 - smoke *accept 'soot'*

- ash
 - gases *accept 'fumes'*
 - sulphur dioxide *accept 'nitrogen oxides'*
 - carbon monoxide
- do not accept 'heat' or 'energy' or 'lead'*

[8]

Question 2:

- (a) It melts **or** is melting 1
accept 'it starts to melt' or 'thaws' or 'turns to liquid'
or 'changes state'
do not accept 'it is between solid and liquid'
- (b) it is room temperature 1
accept no more energy being put in'
- (c) (i) They vibrate around fixed points **A** 1
if more than one box is labelled A, award no mark
- (ii) They move past each other and are close together **C** 1
if more than one box is labelled C, award no mark
disregard any ticks
- (d) (i) Ice is less dense than water. ✓ 1
if more than one box is ticked, award no mark
- (ii) The molecules are further apart in ice than in water. ✓ 1
if more than one box is ticked, award no mark

[6]

Question 3:

- (a) 4

bromine	liquid
chlorine	gas
fluoride	gas
iodine	solid

- (b) gas 1

- | | | | |
|-----|-------|--------|---|
| (c) | (i) | gas | 1 |
| | (ii) | liquid | 1 |
| | (iii) | solid | 1 |

[8]

Question 4:

- | | | | |
|-----|------|-------------------------------|---|
| (a) | (i) | iron | 1 |
| | | <i>do not accept '1540°C'</i> | |
| | (ii) | mercury | 1 |

do not accept '-37°C'

- | | | | |
|-----|--------------------------|--|---|
| (b) | solid <i>to a</i> liquid | | 1 |
|-----|--------------------------|--|---|

answers must be in the correct order

both answers are required for the mark

- | | | | |
|-----|------|--------|---|
| (c) | 5 | | 1 |
| (d) | (i) | sodium | 1 |
| | (ii) | gold | 1 |

[6]

Question 5:

- | | | | |
|-----|-----|--|---|
| (a) | (i) | any one from | 1 |
| | | <ul style="list-style-type: none"> • they vibrate further
<i>accept 'they vibrate more or faster'</i> • they move faster
<i>accept 'they go faster'</i>
<i>do not accept 'they move about more' or 'they collide more'</i> | |

- | | | | |
|--|------|---|---|
| | (ii) | it increases | 1 |
| | | <i>accept 'it gets bigger' or 'they move further apart'</i> | |

- | | | | |
|-----|------|-------|---|
| (b) | (i) | 220 | 1 |
| | (ii) | 299.9 | 1 |

[4]

