

M1. (a) gravitational
accept gravity
do not accept weight 1

(b) (i) planet(s)
accept comet(s)
accept asteroid(s)
do not accept moon(s) 1

(ii) balanced
accept equal / the same / are in equilibrium 1

(iii) Milky Way
accept milky way 1

[4]

- M2.** (a) dust
accept 'solid (s)' 1
- space
accept 'from supernova / supernovum / supernovas' 1
- (b) By atoms joining together
only one ticked or otherwise unambiguously identified 1
- (c) Milky Way (galaxy) 1
- (d) The answer depends on beliefs and opinions, not scientific evidence.
only one ticked or otherwise unambiguously identified 1

[5]

- M3.** (a) uranium-235
accept any correct indication 1
- (b) splits / breaks (into two smaller parts)
nucleus is separated is insufficient
*do **not** accept atom splits – on its own* 1
- and (two / three) neutrons 1
- (c) steam
correct order only 1
- turbine 1
- generator 1

[6]

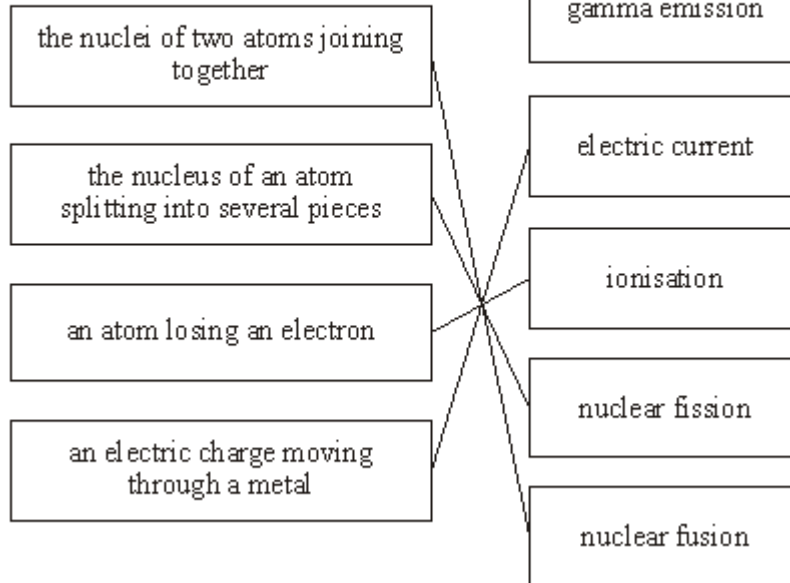
M4. **four** lines correct

allow 1 mark for each correct line

if more than 1 line is drawn from a box in List A, mark each line incorrect

List A

List B



[4]

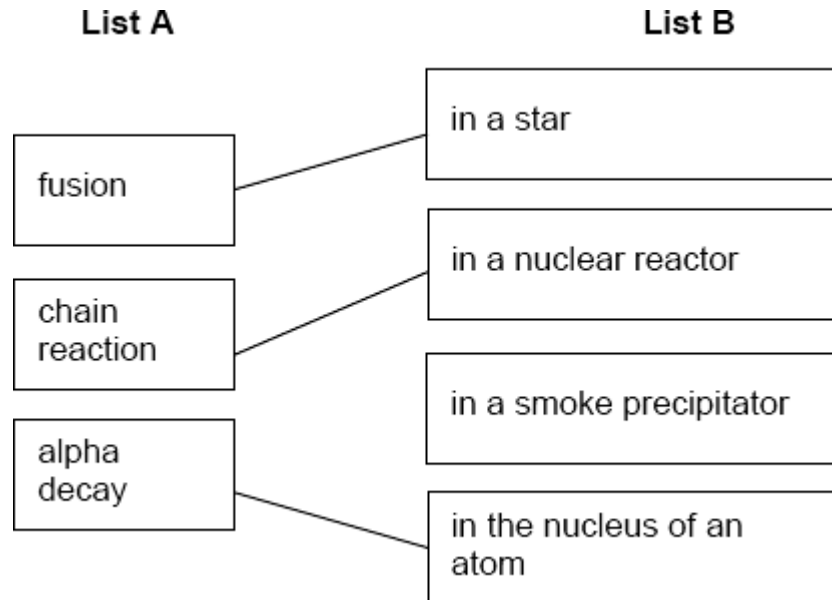
- M5. (a)** (i) protostar
correct order only 1
- red giant 1
- black dwarf 1
- (ii) Alpha Centauri A
accept any correct indication, eg alpha, centauri, A
reason only scores if Alpha Centauri A is chosen 1
- stars (about) same size as Sun form white / black dwarfs
or
very large stars form red super giants / supernova/black hole
it is the same size as the Sun is insufficient
same life cycle as the Sun is insufficient 1
- (b) Atomic nuclei inside the star join together 1

[6]

M6.three lines correct

allow 1 mark for each correct line

*if more than 1 line is drawn from a box in **List A**, mark each line incorrect*



[3]