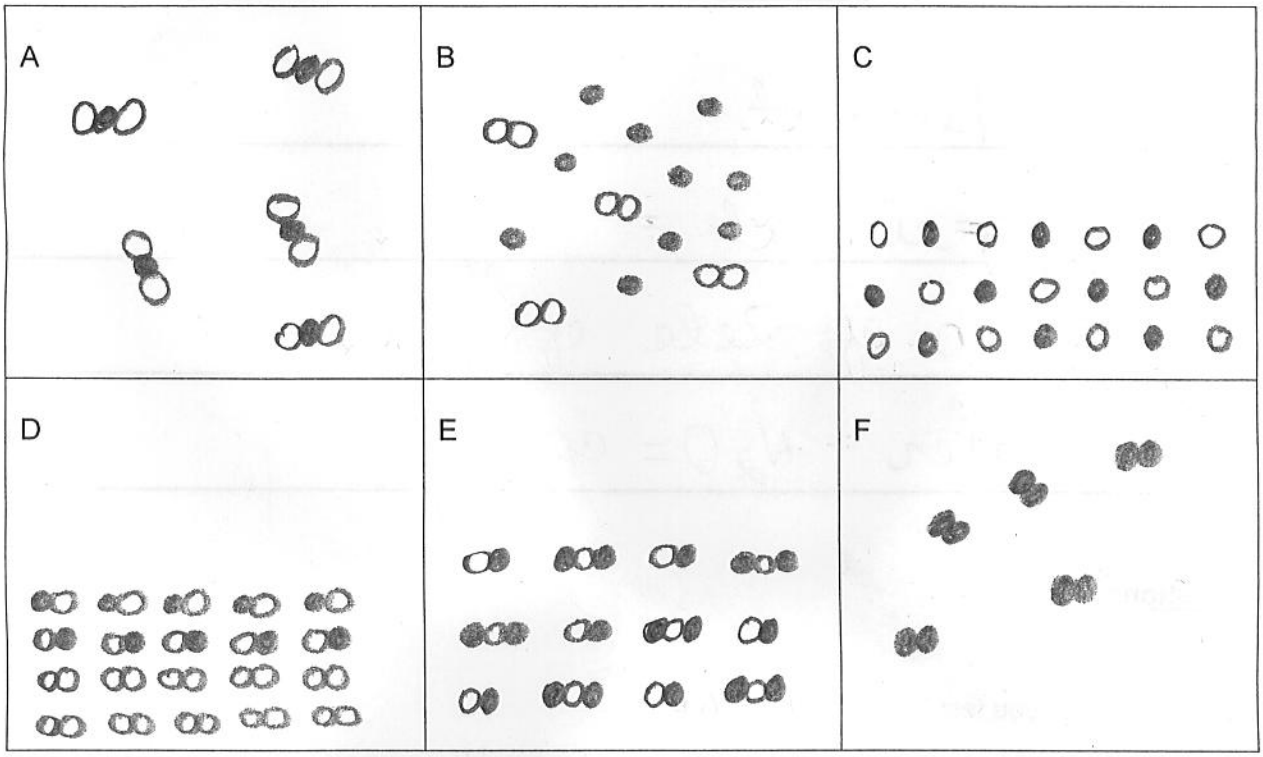
Elements vs Compounds vs Mixtures

Please indicate whether the following is:

- an element
- a compound
- a homo/hetero mixture of 2 or more elements
- a homo/hetero mixture of 2 or more compounds
- a homo/hetero mixture of 2 or more elements and/or compounds



A cpd

B Hetero 2 ele

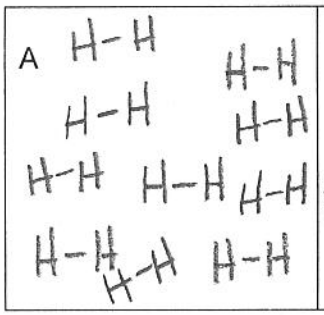
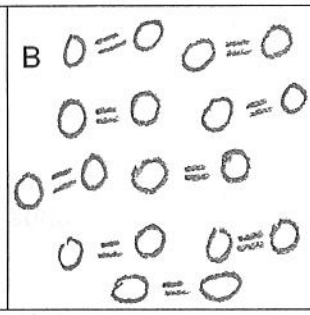
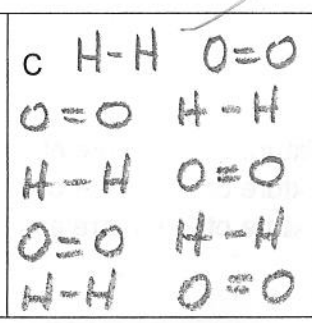
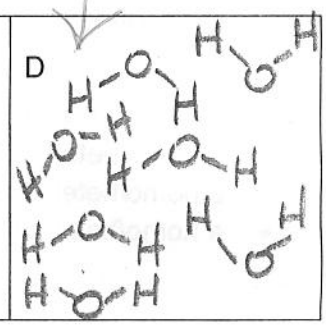
C Homo of 2ele

D Hetero 1ele & 1 cpd

E Homo 2 diff cpds

F ele

Explain what the difference is between the following:

A 	B 	C 	D 

A $H_2(g)$ / element

B $O_2(g)$ = element

C Homo of 2ele of $H_{2(g)}$ & $O_2(g)$

D water = H_2O = cpd.

Questions

1) How did you test for "A" $H_2(g)$

lit splint test for H_2 = "pope" + goes out flaming } burning }

2) How did you test for "B" $O_2(g)$

glowing splint test for O_2 = relights

3) How did you turn C into D? $H_2(g) + O_2(g) \rightarrow H_2O(l)$

lit splint test ⇒ explodes balloon