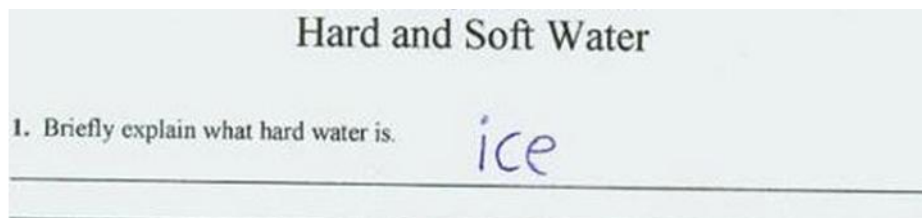


## Never underestimate the stupidity of idiots:



Don't be an idiot: Don't throw away these common idiot marks:

- 1) Make sure you read the whole question.
- 2) Make sure you write answers to the correct number of SF or DP.
- 3) Make sure you can round your answers up / down correctly.
- 4) Write equation as formula, not words.
- 5) Do not forget to draw all bonds and hydrogen's when drawing a molecule.
- 6) Oxidation of alcohols: Always state potassium dichromate and sulphuric acid (not acidified potassium dichromate).
- 7) Oxidation of alcohols: Don't forget the water.
- 8) With enthalpy definitions, don't forget SSSC (standard states under standard conditions)
- 9) When calculation  $Q (=mc\Delta T/1000)$ : make sure you use the volume of water / solution for m
- 10) When calculating  $Q (=mc\Delta T)/1000$ : make sure you include the units kj
- 11) Hess's cycles: Look at the data –  
**Formation – arrows up**  
**Bond enthalpies – arrows down**  
**Combustion – arrows down**
- 12) When calculating  $\Delta H$  using  $Q = mc\Delta T$ : **T increase = negative answer(-) PUT THIS IN FIRST**
- 13) Arrows on enthalpy profile diagrams: **NO DOUBLE HEADED ARROWS / START FROM REACTANTS**
- 14) % yield – Measure of conversion of reactants. Link to waste
- 15) Atom economy – Sustainability and waste due to number of products made
- 16) IR spectroscopy: C=O and range from the data sheet. O-H and range from the data sheet.
- 17) IR spectroscopy: Always discuss C=O and O-H – **EVEN IF THE PEAKS ARE NOT THERE**
- 18) Mass spectroscopy: Don't forget the + with fragments and molecular ion
- 19) Never use the word 'HARMFUL'. Use toxic, respiratory problems, cancer causing
- 20) Rates: Collision frequency – pressure and concentration  
Successful collisions – temperature and catalysts  
**If in doubt – use both**
- 21) If you are asked why a reaction is unlikely to go – High activation energy
- 22) Sustainability: Cost / less fossil fuel use / Less CO<sub>2</sub> / Less contribution to Global warming / always discuss the renewable one and its source.
- 23) Bromine water: Orange → colourless
- 24) Potassium dichromate: Orange → green
- 25) Polymerisation occurs on each of the C's in the C=C: Move all other groups above and below
- 26) Polymerisation requires an **n** before the monomer and after the brackets

27) Recycling requires sorting first

28) Tran E - A cross dresser (across the double bond)

29) If there is a picture of a pencil: CHECK WHAT IT IS AFTER:

SPELLING

TECHNICAL TERMS

30) Check the back page – sometimes there are questions on it / continue until you see

**END OF QUESTIONS**

31) Must know definitions:

Enthalpy change of combustion

Enthalpy change of formation

Bond enthalpy

Exothermic

Endothermic

Activation energy

Le Chateliers Principle

Structural isomer

Stereoisomer

E/Z Trans / Cis isomers

Homologous series

Unsaturated

Hydrocarbon

How fractional distillation works