For the data students need to collect:

* Temperature increase of water
* Mass lost from spirit burner

This would allow you to calculate:

* heat gain by water (Q = m c delta T)
* heat released per gram of alcohol (heat gained by water / mass of alcohol)
* heat released per mole of alcohol (heat gained by water / moles of alcohol)
* **PLANNING:**A plan done as a group which includes steps they will follow and a risk assessment. Can be completed outside of class.  
    
  ***Marked on:***
  + Validity of plan (whether method is appropriate and fits the aim given)
  + Risk assessment (consideration of major risks and suggestions for minimising risks)
* **CONDUCTING:** Completing the investigation in class.
* **ANALYSIS:** 
  + Calculating the heat gained by water
  + Calculating the heat per gram of alcohol
  + Graphing the relationship between carbon-length (x-axis) and heat per mole alcohol (y-axis)
  + Calculating the heat per mole of alcohol
  + Writing thermochemical equations for the combustion of alcohols including delta H
  + Drawing scale enthalpy diagrams showing delta H
  + Comparing their trends to literature values and commenting on differences (I'd imagine their values will be lower than literature for each trial because of heat lost to the environment)
  + Suggesting improvements for experiment
  + Explaining why heat is released in a combustion reaction (in terms of bonds breaking and bonds forming)
  + Explaining the trends in heat of combustion as chain length increases