

**ACTIVITY 3: FRACTURE**

*AIM: to investigate fracture of a material*

1. Measure the width of a new sample (any sample) and place it in the tensile testing machine.
2. Increment the strain to take the sample through the UTS and onto fracture, recording all data as necessary at each step (HINT: again, perhaps use a 'dummy' sample of the same material first to establish the order of magnitude of the strain increments. Otherwise you may have too many or too few data points. You don't need to use the same strain step in each region – the plastic regions usually have a lower gradient, so larger strain increments can be used without undue loss of accuracy).
3. From a plot of engineering stress vs engineering strain determine the UTS.