

LABASA SANGAM (SKM) COLLEGE

NAME: _____

HOME STUDY PACKAGE

YEAR: _____

YEAR 12 PHYSICS

WORKSHEET 1

Week 7 ACTIVITY

3.1 PROPERTIES OF FLUIDS

1. The hydrogen balloons which are used to collect weather information from the atmosphere is made of plastic and never completely filled. Thus the pressure inside and outside are same. The balloon is filled with 150 litres of hydrogen, the air temperature is 27°C and the atmospheric pressure is 98 kPa. The balloon rises to a height where it radios back that the pressure is 30kPa and the temperature is -33°C .
 - i. What is the Kelvin temperature equivalent to -33°C ?
 - ii. What is the volume of hydrogen at this height?

2. State Bernoulli's Principle.

3. Draw the flow of air over this wing. Label where there is low pressure and high pressure caused by Bernoulli's Principle.

