

# Forces & Pressure

As your teacher works through the lesson use this sheet to write your answers. There is space provided for each section.

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1) Discuss which is the odd one out and why?

2) Which one is high pressure and which one is low?



3) Create your sentences;

The studs sink because;



KS3 Phys

The camel has large feet because;



4) Create your sentences;

A nettle uses pressure to;



The ballerina and tank;



# Formulae

5) Work out the following sums using your head and write out the working as shown in the power point. The first is done for you;

a.  $1 \div 5 = \frac{1}{5} = 0.2$

b.  $1 \div 8 =$

c.  $1 \div 10 =$

d.  $1 \div 50 =$

e.  $1 \div 100 =$

6) Using the space below attempt to work out the following;

a. If a dog weighs 300N and has four legs each  $5\text{cm}^2$  in area what is the pressure on one foot?

b. If a goat weights 300N and has four legs each  $5\text{cm}^2$  in area. What is the pressure on the grass paddock?

c. If a skydiver with a surface area (into the wind) of  $2\text{m}^2$  falls at a steady speed of 55m/s with a force of 900N what is the pressure on her?

d. If the force on a submarine porthole at a depth of 100m is 1000N, and the area of the porthole is  $1\text{m}^2$ . What is the pressure?