

Rosary school / Marj El Hamam
Science worksheet 6.1



Name : _____

Date : _____

Grade 4 ()

1. Match each effect of force to the type of force by writing the letter in its correct place.

letter	Effect of force	force
	a boat floats on water	A. applied force
	a coin moves as you spin it	B. Air resistance
	a skydiver slows down as he or she falls	C. upthrust

2. Choose the correct words to fill in the blanks.

applied	upthrust	pairs	push
normal	downwards	upwards	surface

- A force is a _____ or a pull.
- Forces always act in _____.
- When an object is placed on a _____, it has two forces acting on it.
- Gravity acts _____ on the object. An upward force known as _____ force acts against gravity.

3. A fish lives in water.

There is force acting between the body of the fish and the water.

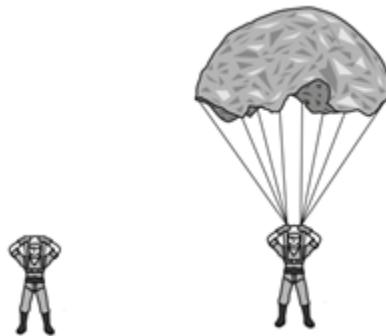
What is this force called? Circle the correct answer.

air resistance

normal force

water resistance

4. Chen conducts an investigation using the two toy soldiers below.
He releases both toy soldiers from the same height, at the same time.
He observes which toy soldier reaches the ground first.



Chen repeats his observations two more times. Why?

5. John drops two pieces of paper from the same height.
He records the time taken for each piece of paper to fall to the ground.

Paper	Time taken to fall to the ground (seconds)
A	4.0
B	2.3

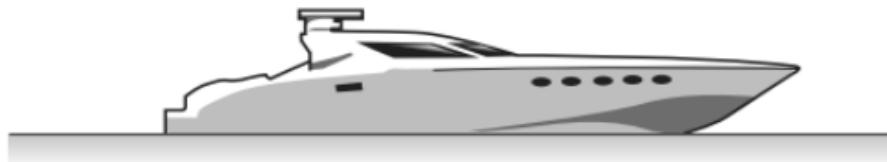
Which piece of paper, A or B, has a larger surface area? How can you tell?

6. Read the following statements. (Explain using scientific terminology.)

Jack competes in a skiing championship. Does he need high or low friction between his skis and the snow? Explain your answer.



7. The picture shows a boat floating on water. The boat is not moving.



Describe the forces acting on the boat.

8. Lily is learning about mass and weight.

Complete her sentences.

Choose from the following words.

You can use each word once, more than once or not at all.

centimetres

kilograms

newtons

seconds

Mass is measured in _____.

Weight is measured in _____.

Force is measured in _____.

9. Complete the sentences about friction.

Choose the best words from the list.

air resistance a force gravity a mass slow down speed up stay the same

a. Friction is _____.

b. Friction makes a moving object _____.

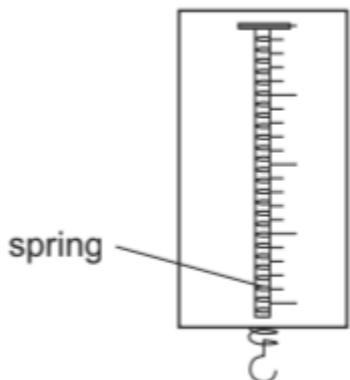
c. A type of friction is _____.

10. Naina is measuring forces.

a. What is this piece of equipment called? _____

b. What does it measure? Underline the correct answer.

newtons grams centimetres millilitres

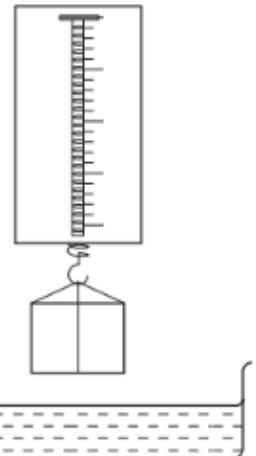


c. What happens to the spring when there is a force on it?

d. Naina measures the force of a wooden block in air and in water.

Why does she find that force is less in water than in air? Tick.

Air resistance is less than water resistance.	<input type="checkbox"/>
Gravity is less in water than in air.	<input type="checkbox"/>
The water pushes up on the block.	<input type="checkbox"/>
The wooden block soaks up some water.	<input type="checkbox"/>



e. What would she find if she measured the mass of the block in air and in water?
