

The Primary Stage of Grades (4-5) School Year 2022 - 2023

Name: _____

Subject: Science Revision worksheet

Date: / /

Class: Grade 4 CP (All Sections)

Question 1: Underline the correct alternative from the words in bold to complete these sentences:

1. Friction is a force between two surfaces that are trying to **slide past each other/remain still**.
2. Friction makes object **speed up/slow down**.
3. Water resistance always works in the **same direction/opposite direction** from the direction the object is moving through water.
4. Air resistance **speeds up/slows down** the object moving through air.
5. Friction acts in the **same direction/opposite direction** of movement.

Question 2:

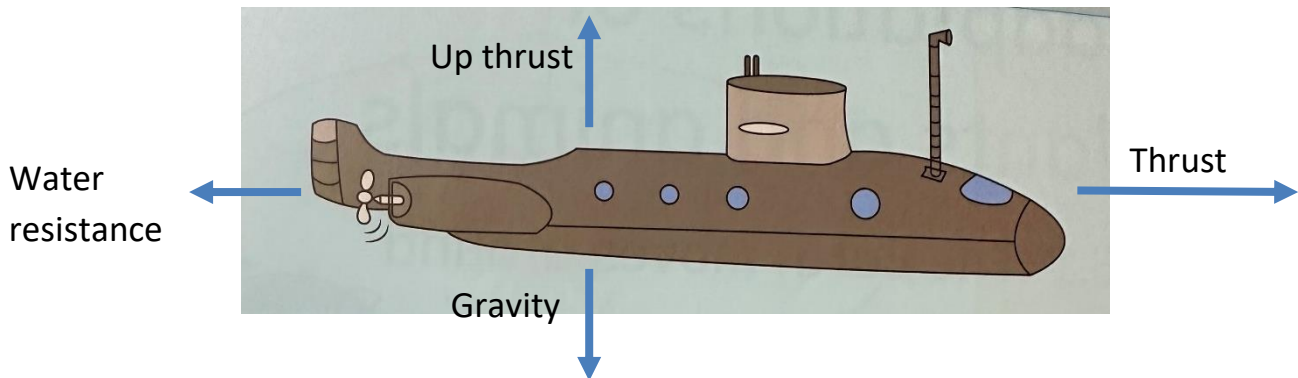
Write the letter that best describes each force:

B	Gravity
D	Friction
A	Thrust
E	Air resistance
C	Up thrust

A	A force that makes objects move in certain direction
B	A force that pulls objects downwards.
C	A force applied by water to push things up
D	A force between two surfaces trying to slide past each other
E	A force that slows things down that are moving through air

Question 3:

Here is a picture of a submarine:



a. On the picture label the four forces which acts on the submarine when it is moving through the water. Show the direction and name of each force.

b. When the submarine is at rest , which two forces are action on it?

Gravity And Up thrust.

c. What causes the thrust force?

Engines.

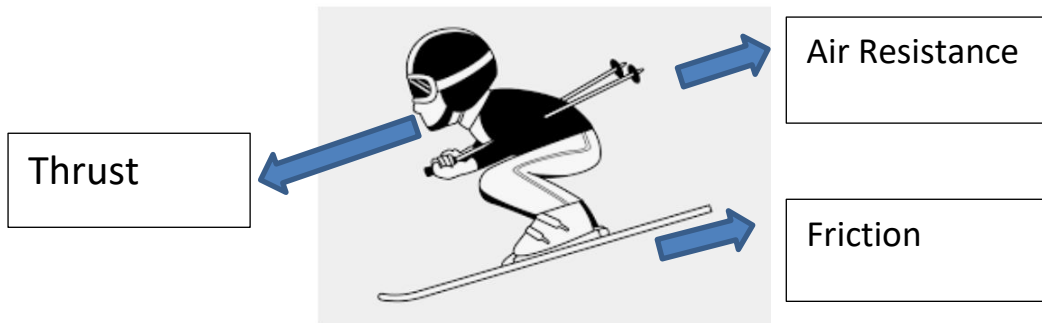
e. What name is given to the submarine's shape? why does a submarine have this shape?

Streamlined, to reduce water resistance and make it go faster through water.

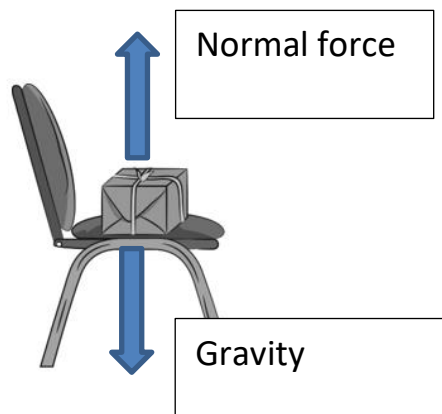
Question 4:

Label the following diagrams with the correct forces acting in each situation:

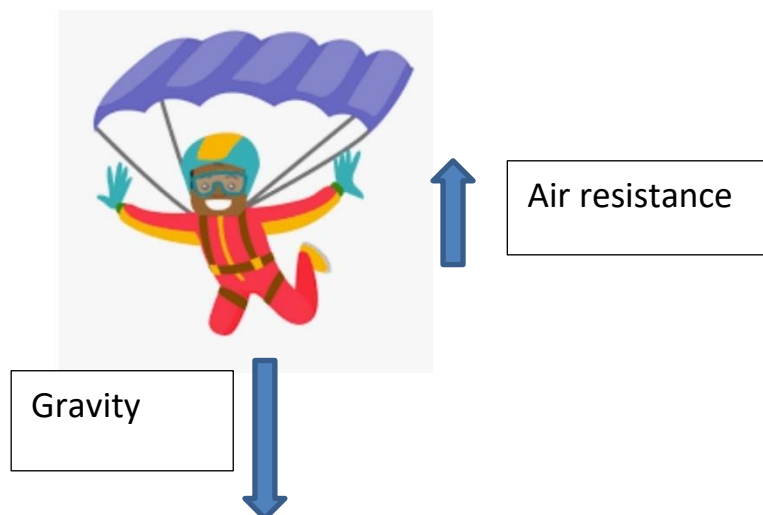
a. The boy is skiing in this direction 



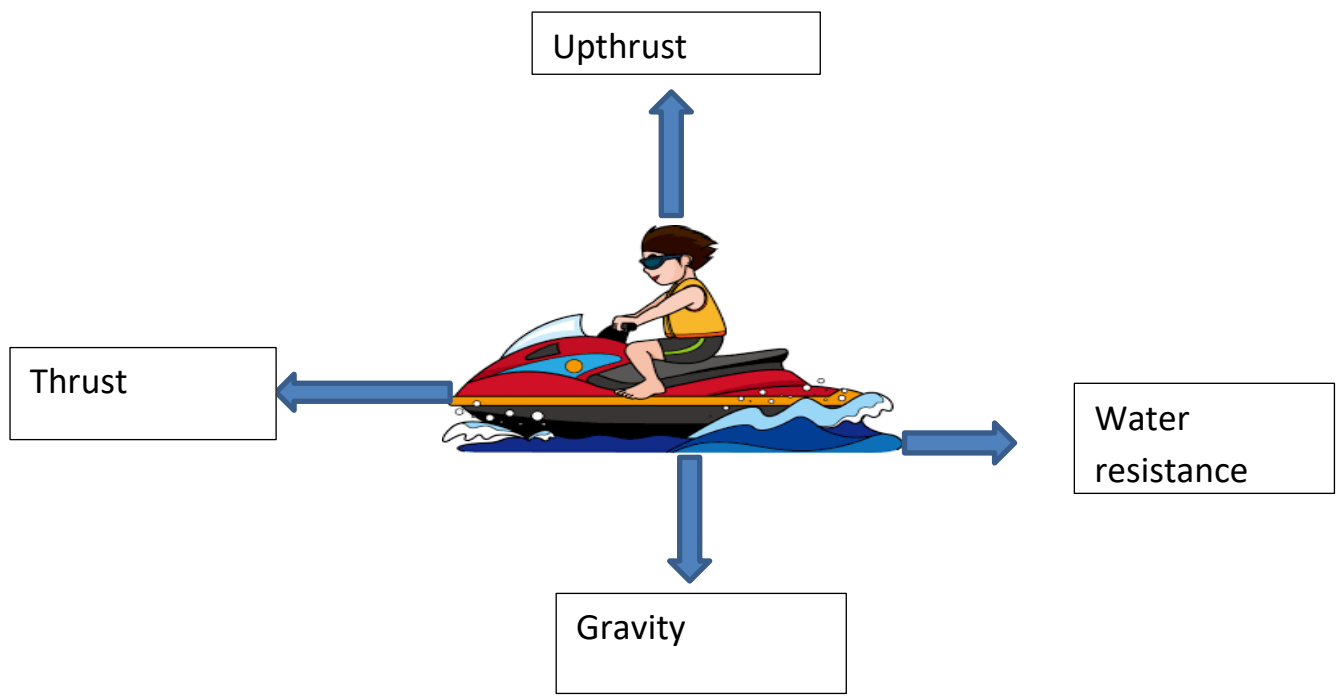
b. The gift is on the chair:



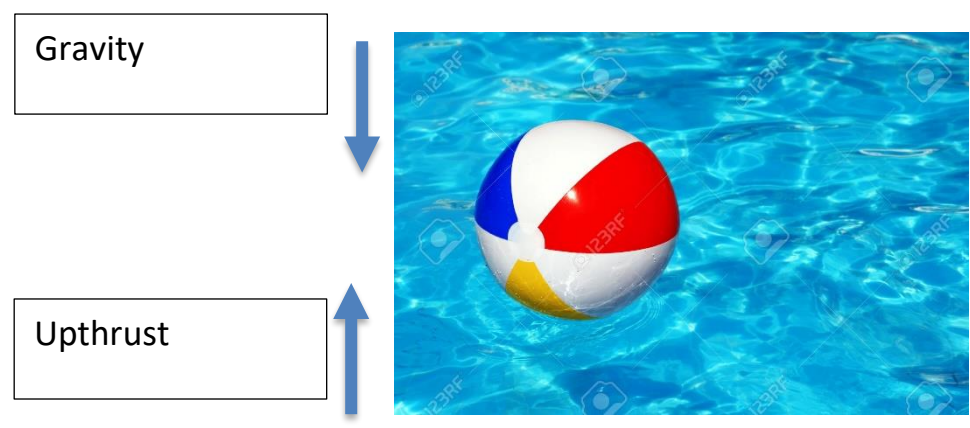
c. The parachutist is falling:



d. The boy is moving in water in this direction ←

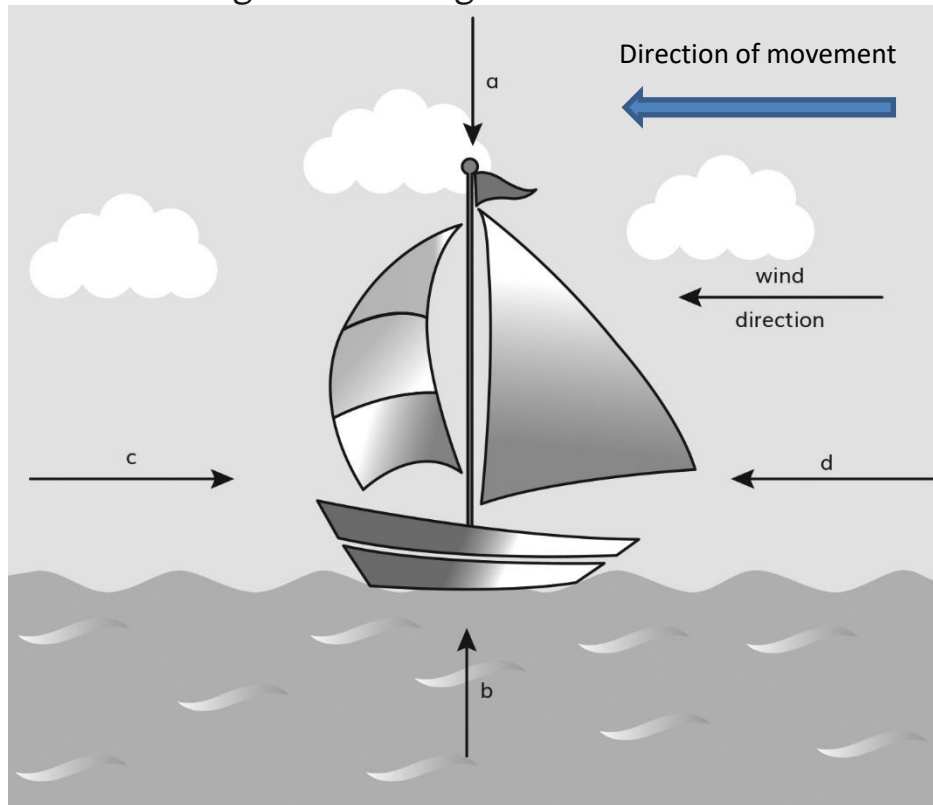


e. The ball is floating over water:



Question 5:

Name the forces acting on this sailing boat:



a: Gravity

b: Upthrust

c: Water resistance

d: Air force on the sail

b. Forces **a** and **b** are equal.

What happens to the boat if force **a** is bigger than force **b**?

It will sink

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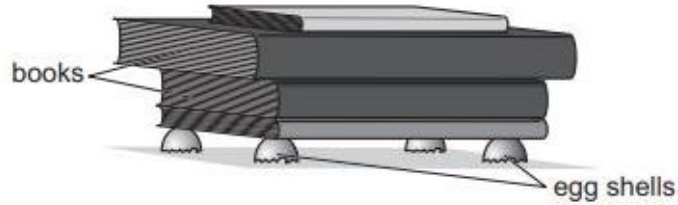
c. If the wind becomes lighter, what happens to the speed of the boat?
Tick the correct box.

- The boat will slow down
- The boat speeds up
- The boat's speed stays the same

Question 6:

A) Safia investigates forces.

She puts books on four egg shells.



Safia adds books until the egg shells break.

She records the number of books needed to break the egg shells.

She repeats the investigation. Each time she uses new egg shells.

Here are her results.

investigation number	number of books to break the egg shells
1	5
2	5
3	6
4	2
5	6

(a) Safia thinks one of her investigations is not correct.

Which investigation does she think is not correct?

Explain why.

Investigation number Number 4

Explanation It was not reliable [1]

(b) Safia's investigation is **not** a fair test.

Describe why it is **not** a fair test.

She uses new egg shells each time.

B) Chen writes some sentences about forces.

Only **one** sentence is correct.

Tick (✓) the correct sentence.

Force is also called mass.

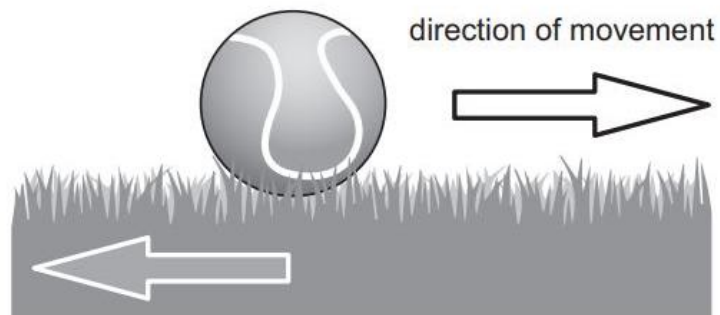
Force is measured in kg.

Force is measured in m.

Forces do **not** stop objects moving.

Forces have direction.

(c) This ball is moving across the grass.



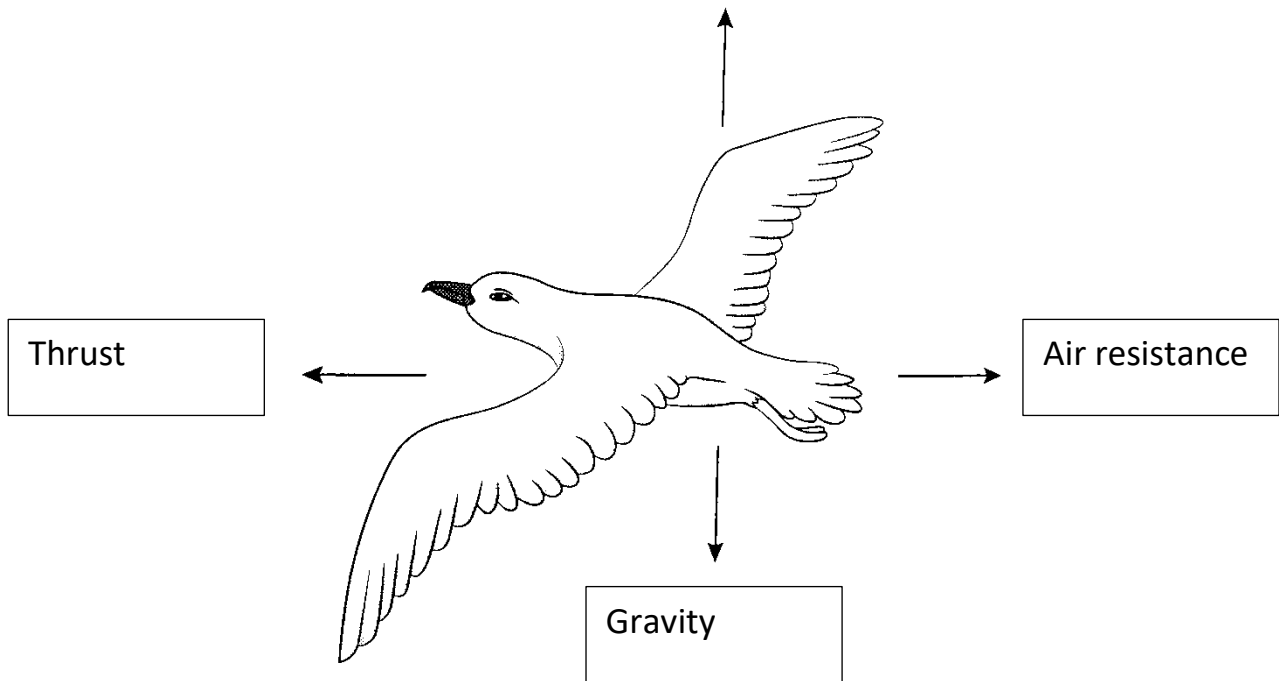
Friction

Label the arrow with the name of the force slowing the ball's movement.

Question 7:

People got their ideas from birds flying when they designed aeroplanes.

Look at the drawing below and label the forces.



a) How does the bird overcome these forces to be able to fly?

To put more thrust force.

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b) what is the name given to the shape of the bird's body? Why does it have this shape?

Streamlined shape, to reduce the air resistance and make it fly faster.

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