FORCES PRACTICE

Prepared by *Ms Intan*

TASK 1:

<u>Forces</u>

1) A force can be a p_____ or a p_____.

2) Forces cannot be seen, but you can see their effect.

The effects of forces:

Match the picture with the effect that a force produces:

Change shape **stop moving**

Break **start moving**

LIVEWORKSHEETS

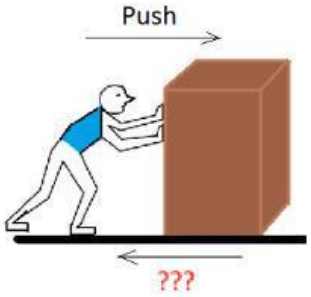
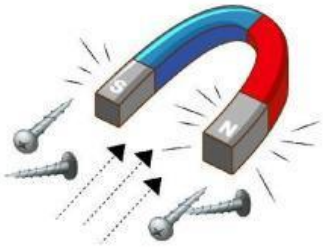
FORCES PRACTICE

Prepared by *Ms Intan*

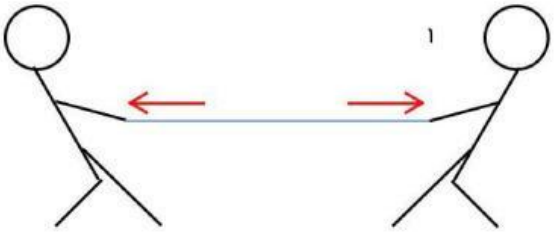
3) Different types of forces

There are many different types of forces. Name the type of forces with the correct picture.

Air resistance ~~**Frictional force**~~ **Water resistance** **Thrust** **Gravity** **Magnetic force** **Tension force** **Weight** **Electrostatic force**

Forces Name	Pictures
Frictional force	
	

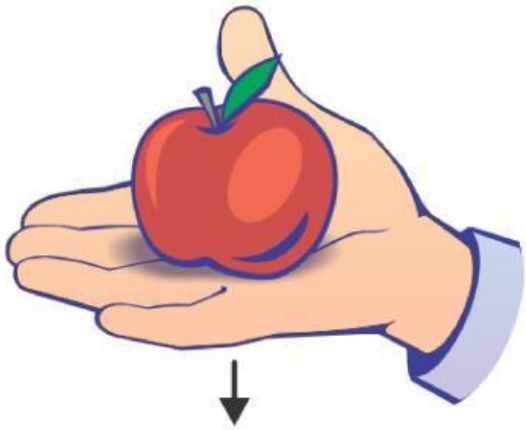
LIVEWORKSHEETS

	 When walking or swimming through the sea or swimming pool, you feel that water is pushing you back.
	Two Men Pulling a Rope 

LIVEWORKSHEETS

FORCES PRACTICE

Prepared by *Ms Intan*

LIVEWORKSHEETS

FORCES PRACTICE

Prepared by *Ms Intan*

4) Name three contact forces and three non-contact forces from the forces mentioned above.

Contact forces:

_____

Non-contact forces:

_____

5) Forces always come in pairs. The pairs are called _____ _____.

Describe one of the interaction pairs for an apple hanging from the branch of the tree.

Answer: _____

6) Complete the word search below. Highlights/ circle the answers.

R	Z	N	L	I	F	T	J	I	A	C	M	B	H	D	V	K	X
I	Z	W	A	T	E	R	R	E	S	I	S	T	A	N	C	E	O
F	R	I	C	T	I	O	N	A	L	F	O	R	C	E	F	W	E
G	M	C	O	N	T	A	C	T	F	O	R	C	E	S	M	T	C
R	Y	G	E	I	O	A	A	U	R	N	X	K	Y	O	A	Q	S
A	T	U	R	X	D	T	H	R	U	S	T	M	E	Q	G	M	W
V	D	R	A	G	F	O	R	C	E	X	K	F	S	I	N	L	E
I	N	A	U	P	T	H	R	U	S	T	K	D	D	D	E	U	I
T	A	T	T	E	N	S	I	O	N	F	O	R	C	E	T	R	G
Y	E	L	E	C	T	R	O	S	T	A	T	I	C	X	I	O	H
K	U	L	C	A	I	R	R	E	S	I	S	T	A	N	C	E	T
Q	N	O	N	C	O	N	T	A	C	T	F	O	R	C	E	S	Z

LIVEWORKSHEETS

Find the following words in the puzzle.
Words are hidden → ↓ and ↘ .

AIR RESISTANCE	GRAVITY	THRUST
CONTACT FORCES	LIFT	UPTHRUST
DRAG FORCE	MAGNETIC	WATER RESISTANCE
ELECTROSTATIC	NONCONTACT FORCES	WEIGHT
FRICTIONAL FORCE	TENSION FORCE	

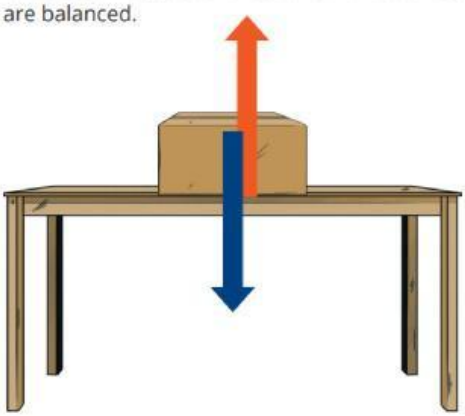
TASK 2 :

Force Diagrams

You add force arrows to a diagram to show which forces are acting. The arrows show the direction and the size of the force (the longer the arrow, the bigger the force).

The arrows must touch the object in the diagram.

If an object is stationary, or moving at a constant speed, the forces on it are balanced. Balanced forces act in opposite directions and are the same size. The forces in the diagram below are balanced.



The upwards arrow represents the **reaction** force. This is the force of the table supporting the box.

The downwards arrow represents the gravitational force acting on the box, also known as **weight**. This is the force of the Earth acting on the box.

If forces acting on an object are unbalanced, the object will be speeding up (accelerating) or slowing down.

LIVEWORKSHEETS

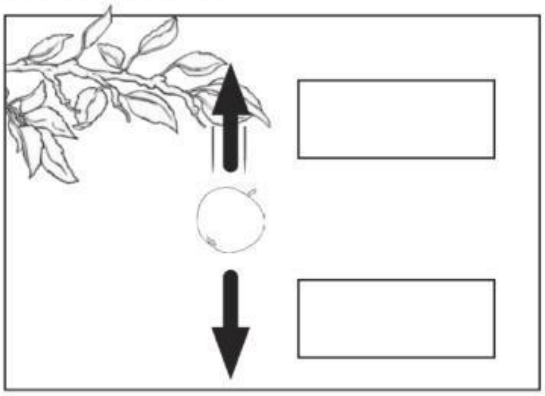
FORCES PRACTICE

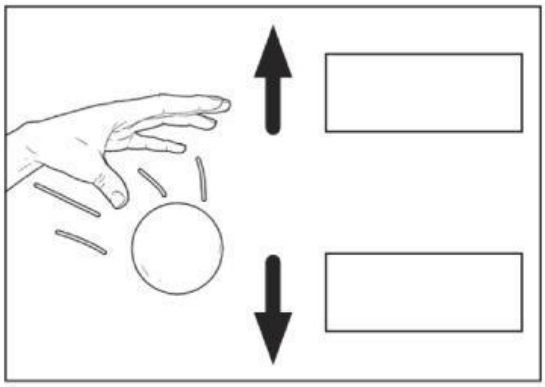
Prepared by *Ms Intan*

If an object is speeding up, the forward arrow will be larger.

If an object is slowing down, the backward arrow will be larger.

In the two pictures below, the arrows represent forces acting. Write the names of the forces in the boxes.



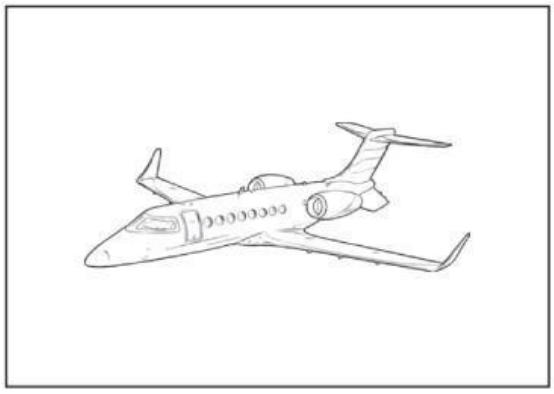


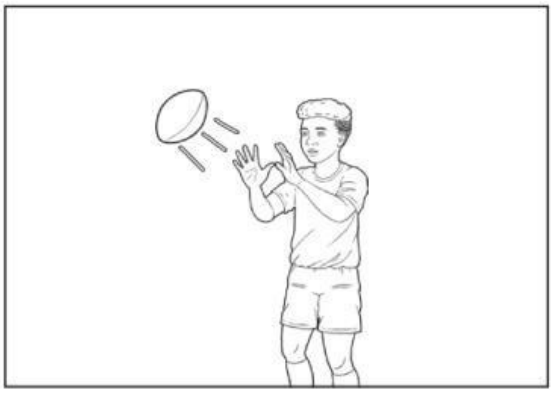
LIVEWORKSHEETS

FORCES PRACTICE

Prepared by *Ms Intan*

Draw your own arrows and label them to show the forces acting.





Add force arrows to the diagrams below. Label the arrows with the force and add a description that says whether the forces are balanced or unbalanced.

A person sitting on a chair.

An apple hanging on a tree.

LIVEWORKSHEETS

FORCES PRACTICE

Prepared by *Ms Intan*

A ball accelerating downwards.

A car travelling at a constant speed.

Draw your own pictures in the boxes below. Then label them and draw your own arrows to show the forces acting.

LIVEWORKSHEETS

FORCES PRACTICE

Prepared by *Ms Intan*

Balanced and unbalanced Forces

Forces acting on the table	Balanced or unbalanced	Resultant force	Direction of the net force (left or right)

END OF PAPER

LIVEWORKSHEETS