Monday 20th April

Dear Year 6

We hope you and your families are well and have had a lovely Easter together. We hope you all had lots of fun in the sunshine and enjoyed many chocolate eggs!

Here are the suggested activities for this week for you to follow and complete.

Please also remember to take time to relax, exercise and be kind to yourselves.

Take care and keep smiling,

Mrs Graham and Mrs North

Reading

As always, you should be aiming to read for ***at least 20 minutes everyday***. Find some time today to sit quietly and read.

Remember you can now take Accelerated Reader quizzes from home by using this link Howley Grange Renaissance at home and logging on as usual using your username and password.

To check that the book you are reading has a quiz, you can check it using on Accelerated Reader Bookfinder. It's okay to read books which haven't got a quiz – just keep a record of what you have read.

Keep reading and exploring new worlds and adventures!

English

Doors

-the world of possibility

Year 6 Workbook

by Jamie Thomas

Introduction

Have you ever looked at a door and wondered what might be on the other side? Where may it lead? What may be hiding within? At first glance, a door is just a piece of wood, glass or metal that is opened and closed so that people can get in and out of a room, a vehicle or a space. But in the hands of a writer, a door represents a world of possibility, a world where things are not only hidden but often closed off and restricted. Together, through poetry, text games and narrative, we shall explore the potential that a door offers to you, the writer.

English Activity 1a

As I write this, the world is in lockdown, shut behind doors for our own safety and the safety of everyone else. Covid-19 has closed schools, closed shops and temporarily closed some of the things we take for granted, like playing in the park with our friends.

★ **Make a list of all the things that you miss doing. You may like to think about some of the following categories:**

- seeing family
- seeing friends
- day to day things
- playing sports
- exploring your interests
- places you love to visit

Throughout these sessions, you may like to use these personal reflections to inspire and influence your writing.

English Activity 1b

This is an idea inspired by Kit Wright's poem 'The Magic Box' (you could search for this on the internet to read his poem). In the poem, Kit imagines what may be contained inside a magical box. We can use this idea to connect to what could be behind the magical door.

★ **Before you begin, brainstorm a list of ideas for what might be behind the door. Let your imagination run wild as there is no wrong answer. Once you have your list, have a go at writing a poem, using the repeating opener: I opened the magical door and saw ...**

Here's an example to help you get going:

I opened the magical door and saw shadows dancing.

I opened the magical door and saw a rainbow leading to another world.

I opened the magical door and saw people crying.

I opened the magical door and saw a magical fairground flooded in lights.

There is a copy of 'The Magic Box' by Kit Wright on the next slide and an example of a poem written by Year 6 on the following slide.

Once you have got your ideas, go back and see if you can add to them. You could add more description or bring the thing to life through action, e.g.

I opened the magical door and saw a shoal of hungry shadows, tangoing through busy streets.

The Magic Box by Kit Wright

I will put in the box

the swish of a silk sari on a summer night,
fire from the nostrils of a Chinese dragon,
the tip of a tongue touching a tooth.

I will put in the box

a snowman with a rumbling belly
a sip of the bluest water from Lake Lucerene,
a leaping spark from an electric fish.

I will put into the box

three violet wishes spoken in Gujarati,
the last joke of an ancient uncle,
and the first smile of a baby.

I will put into the box

a fifth season and a black sun,
a cowboy on a broomstick
and a witch on a white horse.

My box is fashioned from ice and gold and steel,
with stars on the lid and secrets in the corners.
Its hinges are the toe joints of dinosaurs.

I shall surf in my box
on the great high-rolling breakers of the wild Atlantic,
then wash ashore on a yellow beach
the colour of the sun.

The Magical Door

I opened the magical door and saw …
a world turned upside down:
the sea, now a floating ceiling,
the clouds, an inviting carpet.

I opened the magical door and saw …
the reflection of myself:
standing, searching, staring,
questioning how this was possible.

I opened the magical door and saw …
a sweet-treat paradise:
clouds of candy floss,
drifting across a bubble gum sky.

I opened the magical door and saw …
a field of waves:
blue potatoes were leaping,
playing in white foam,
as puzzled farmers watched from sunny shores

I opened the magical door and saw …
The image of a street I used to know,
But as I entered, everything changed;
As I reached out, everything had gone.

I opened the magical door and saw …
A forest of mirrors,
surrounding me in dazzling white light,
leading me into a world of mystery.

I opened the magical door and saw…
A feast of my favourite foods
Guarded by monster chips
Waiting to fight off all invaders.

I opened the magical door and saw …
Monstrous mobile phones
Herding people into little houses
And laughing, laughing, laughing.

I opened the magical door and saw…
The future.

Maths Activity 1a – ten in ten ☺

1) 3.74 x 100 =
2) ½ x 450 =
3) 0.25 x 360 =
4) 12 - 3.475 =
5) 3 x 6 x 10 =
6) 293 x 45 =
7) 1/5 + 2/6 =
8) 39052 - 4912 =
9) + 937 = 2037
10) 4032 + = 5896

You know the rule!

Ten minutes to answer ten questions ☺

Maths - Ratio

This week's Maths focus is Ratio. We have included two Knowledge Postcards that will help you with answering this week's questions.

Don't forget that you can also use your Maths revision book to help you.

Ratio

Knowledge Organiser

Key Vocabulary

- ratio
- proportion
- "for every... there are..."
- part
- whole
- scale factor
- enlargement
- similar shapes
- length
- width
- perimeter

Ratio Language

For every 1 circle, there are 2 triangles.

For every 2 bananas, there are 3 apples.

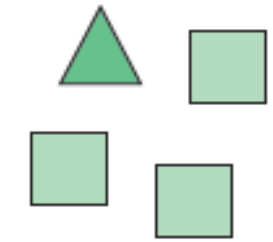
For every 1 football, there are 3 rugby balls.

Ratio and Fractions

For every 1 rugby ball, there are 2 footballs.

Ratio of rugby balls to footballs: 1:2

$\frac{1}{3}$ of the balls are rugby balls.



For every 1 triangle, there are 3 squares.

Ratio of triangles to squares: 1:3

$\frac{1}{4}$ of the shapes are triangles.

The Ratio Symbol

The ratio of footballs to rugby balls: 1:4

The ratio of rugby balls to footballs: 4:1

The ratio of circles to triangles: 2:3

The ratio of triangles to circles: 3:2

The ratio of apples to bananas: 1:2

The ratio of bananas to oranges: 2:3

The ratio of apples to bananas to oranges: 1:2:3

The ratio of oranges to bananas to apples: 3:2:1

Ratio

Knowledge Organiser

Ratio and Proportion Problem-Solving

To use the ingredients for 1 person, you divide all the quantities by 10 (÷ 10).

To use the ingredients for 5 people, you halve all the quantities (÷ 2).

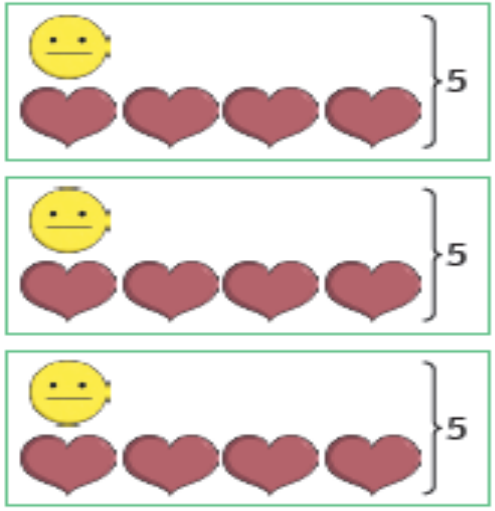
Ingredients for Fruit Smoothie
(serves 10 people)

- 800g of bananas
- 500g of strawberries
- 200g of raspberries
- 700ml of milk
- 300ml of natural yogurt

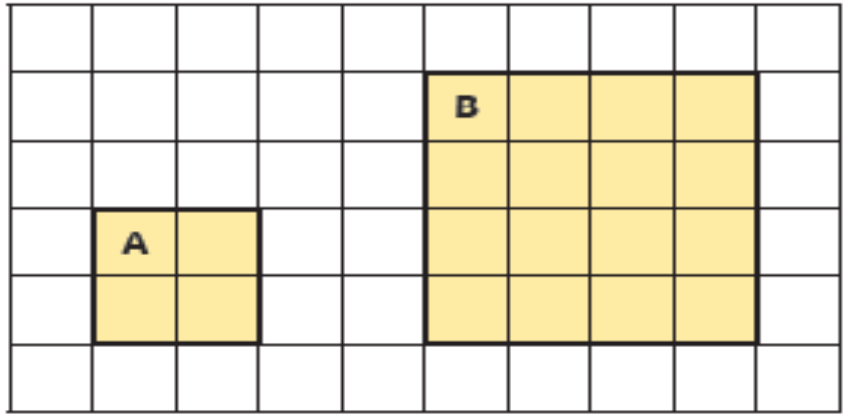
To use the ingredients for 20 people, you double all the quantities (× 2).

In a bag of 15 sweets, there is 1 smiley face sweet for every 4 love heart sweets.

Therefore, there will be 3 smiley face sweets and 12 love heart sweets in the bag.



Scale Factors

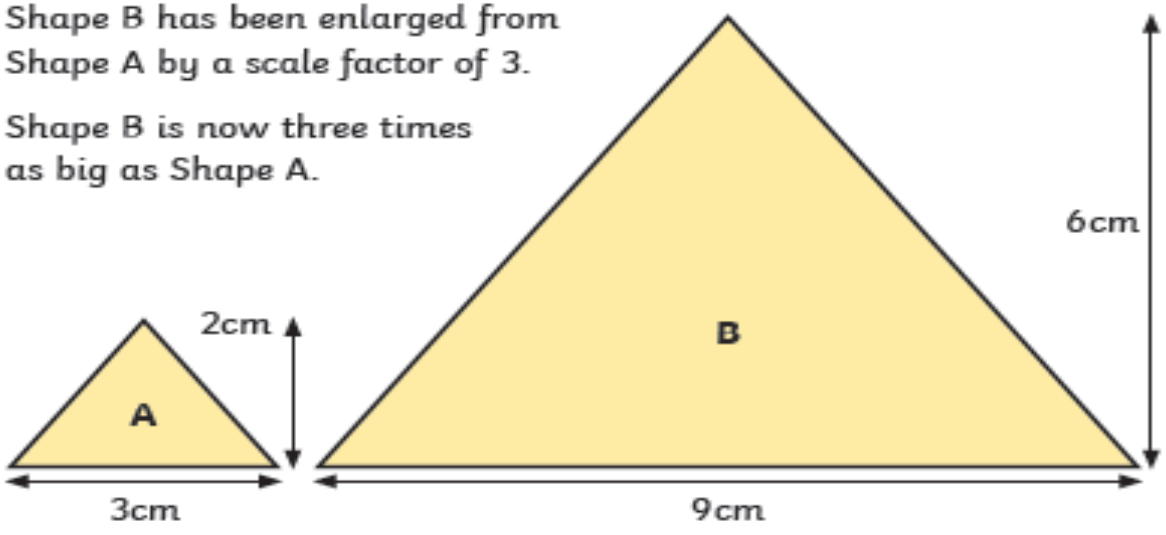


Shape A has been enlarged by a scale factor of 2 to make Shape B.

Shape B is now two times as big as Shape A.

Shape B has been enlarged from Shape A by a scale factor of 3.

Shape B is now three times as big as Shape A.



Maths Activity 1b

Using ratio language

1 Complete the sentences.

For every 3 sheep there are ☐ cows.

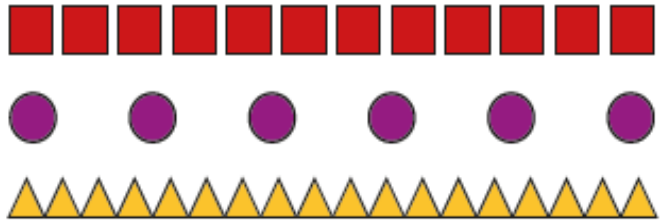
For every 2 cows there is ☐ sheep.

2 Circle groups to match the statements.

a) For every 1 football there are 3 tennis balls.

b) For every 2 cars there are 5 bicycles.

3 Here are some shapes.



Complete the sentences.

For every 6 squares there are ☐ circles.

For every 6 squares there are ☐ triangles.

For every 1 square there is ☐ a circle.

4 a) Make a tower of cubes that has 3 green cubes for every 1 red cube.

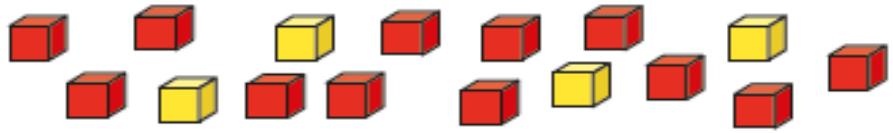
b) Compare your tower to a partner's tower.

What is the same and what is different about your tower?

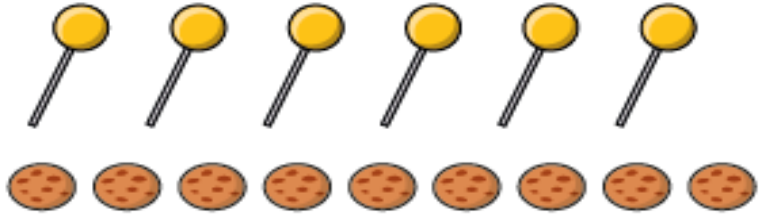
5 For every 2 pencils there are 3 rulers.

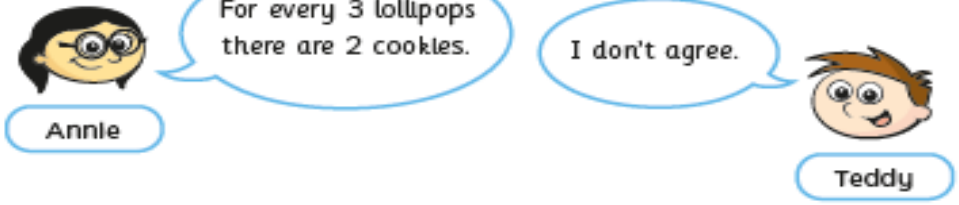
Draw a picture to show this.

6 Write three different 'For every ...' sentences for the cubes.



7 Teddy has 6 lollipops and 9 cookies.





a) What mistake has Annie made?

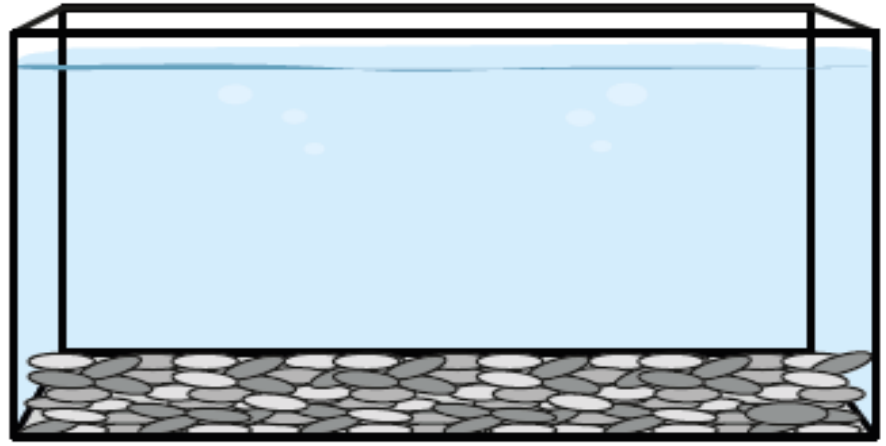
b) Write a sentence to match the picture.

8 Filip has some fish.

For every 3 red fish he has 1 goldfish.

Tommy counts at least 20 fish in the tank.

Draw the fish in the tank.



9 In Class 6, for every 2 girls there is 1 boy.

There are 12 girls in the class.

How many boys are in the class?
You can draw the children to help you.

Science - Light

The following activities are to be done over the week.

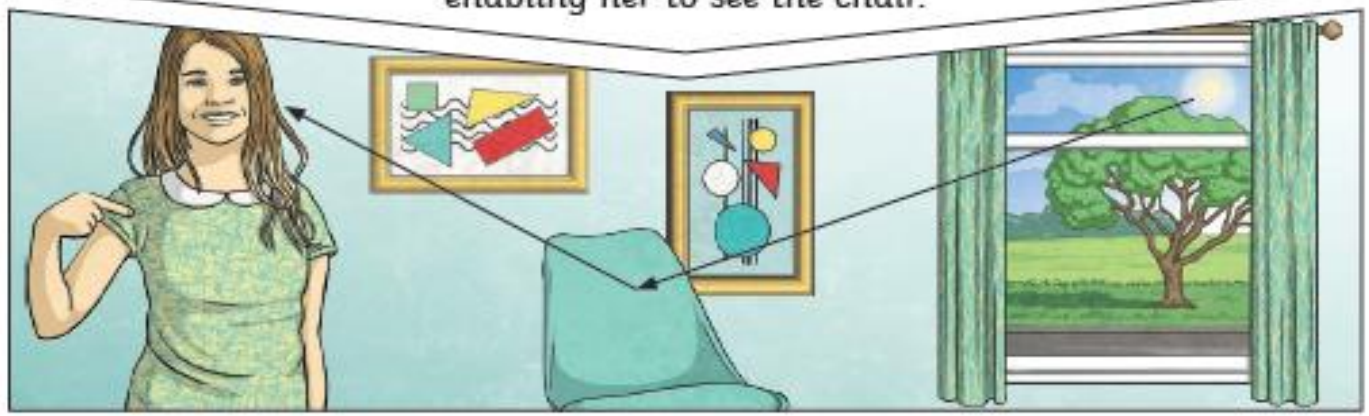
We have added a Knowledge Postcard at the beginning which will help you with everything you need to know for these activities and explain any key vocabulary.

Key Vocabulary	
light	A form of energy that travels in a wave from a source.
light source	An object that makes its own light.
reflection	Reflection is when light bounces off a surface, changing the direction of a ray of light.
incident ray	A ray of light that hits a surface.
reflected ray	A ray of light that has bounced back after hitting a surface.
the law of reflection	The law states that the angle of the incident ray is equal to the angle of the reflected ray.

Key Knowledge

We need light to be able to see things. Light waves travel out from sources of light in straight lines. These lines are often called rays or beams of light.

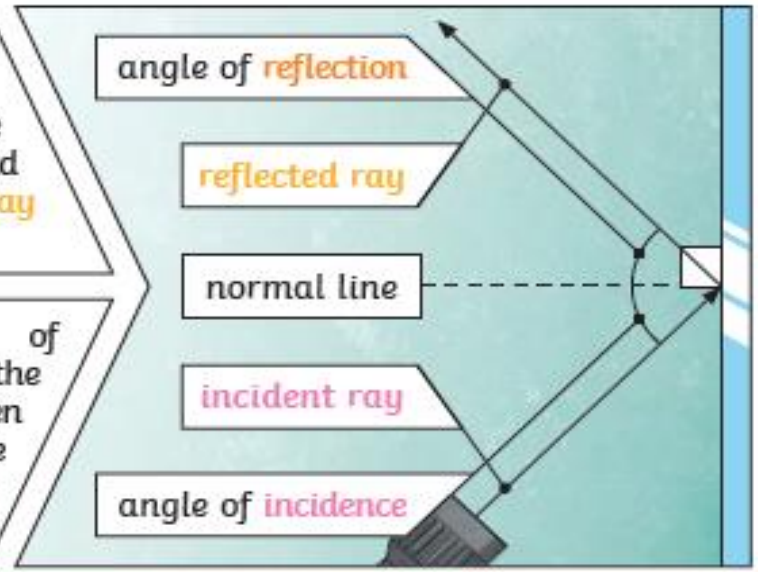
Light from the sun travels in a straight line and hits the chair. The light ray is then reflected off the chair and travels in a straight line to the girl's eye, enabling her to see the chair.



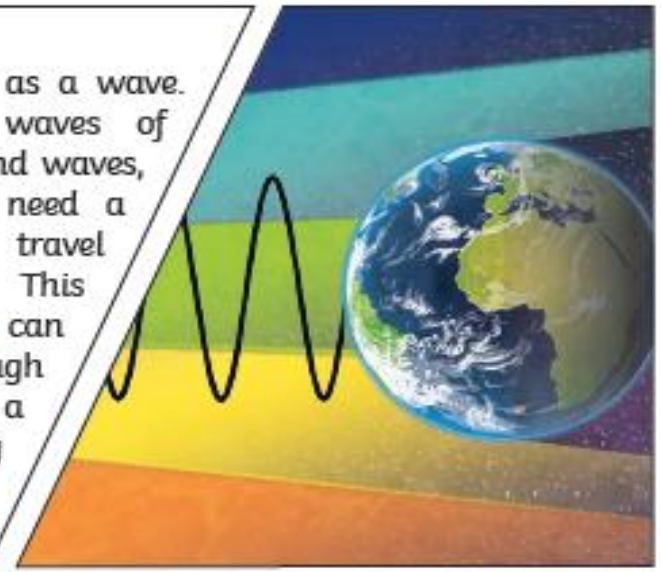
The law of reflection states that the angle of incidence is equal to the angle of reflection. Whenever light is reflected from a surface, it obeys this law.

The angle of reflection is the angle between the normal line and the reflected ray light.

The angle of incidence is the angle between the normal line and the incident ray of light.



Light travels as a wave. But unlike waves of water or sound waves, it does not need a medium to travel through. This means light can travel through a vacuum - a completely airless space.



How Does Light Help Us See?

Light is a type of energy known as electromagnetic radiation.

It is made up of photons, little particles of energy.

Light travels as a wave. But unlike waves of water, or sound waves, it does not need any medium to travel through. This means light can travel through a vacuum - a completely airless space.

Light waves travel out from sources of light in straight lines. These lines are often called rays or beams of light.

How Does Light Help Us See?

Rays of light travel from a light source and hit objects around us.

The rays of light reflect, or bounce, off an object, and then travel into our eyes.

This reflection of light allows us to see the object.

1. Light from the light bulb travels in a straight line and hits the chair.

2. The ray of light is reflected off the chair and travels in a straight line to the girl's eyes, enabling her to see the chair.

Science Activity 1 - light

You have been asked to create an educational programme for children all about how light enables us to see. Your explanations of how we see need to be clear and easy to understand. You may choose to use pictures or diagrams to support your explanations.

Get into character as a scientist and have fun creating the script for your television programme.

Key vocabulary to include - light,
source, straight, energy, beam, bounce, reflect, ray

How Is Light Reflected?

Reflection is when light bounces off a surface, changing the direction of a ray of light. All objects reflect light; smooth and shiny surface reflect all the rays of light at the same angle, rather than scattering the rays of light like rough or dull surfaces.

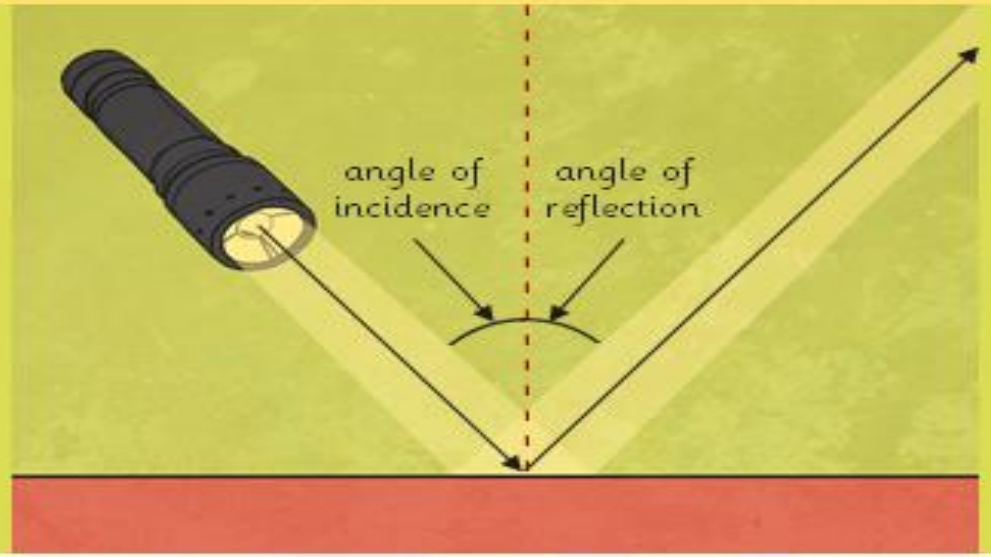
The light ray that hits the mirror or other object is described as the incident ray, and the ray of light that bounces off is known as the reflected ray.

How Is Light Reflected?

When rays of light reflect, they obey the law of reflection: The angle of incidence always equals the angle of reflection.

The red dashed line is called the 'normal' line. It is drawn at a right angle, or perpendicular to the reflector.

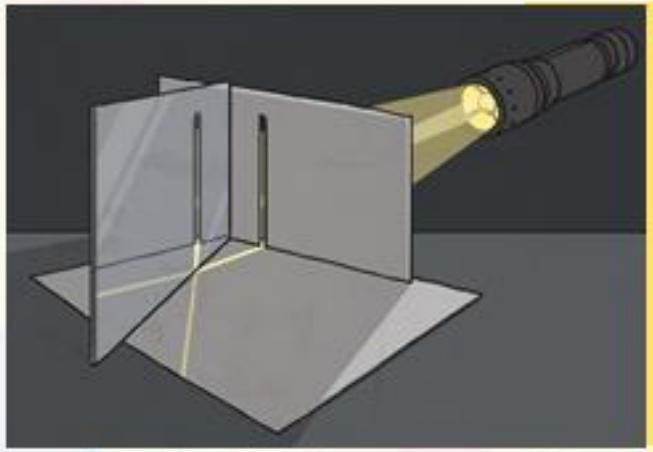
The angle of incidence is the angle between the normal line and the incident ray of light.



The angle of reflection is the angle between the normal line and the reflected ray of light.

Science Activity 2 – Angles of Incidence and Reflection

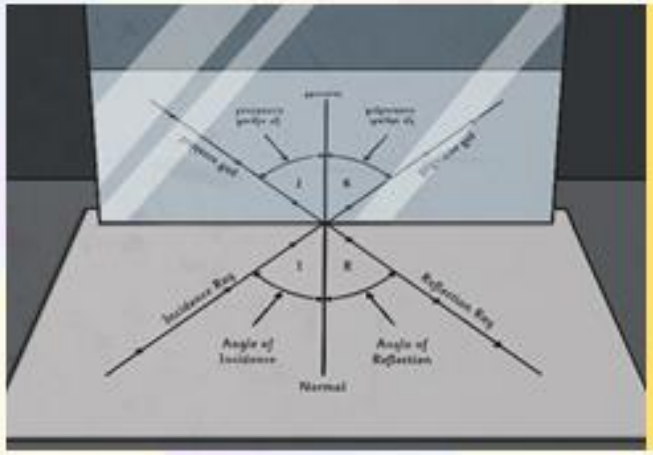
Try this challenge to prove the law of reflection!



Stand a mirror up on a piece of white paper.

Make a very narrow slit in a piece of card.

Dim the lights and shine a torch through the slit towards the mirror.



On the white paper, look for the incident ray and the reflected ray of light. You may have to play around with the angle of the torch and the distance you hold it from the mirror.

Answers - 20/4/20

Maths Activity 1a – ten in ten ☺

1) 374
2) 225
3) 90
4) 8.525
5) 180
6) 13185
7) 16/30 or 8/15
8) 34140
9) 1100
10) 1864

Maths Activity 1b

Using ratio language

1 Complete the sentences.

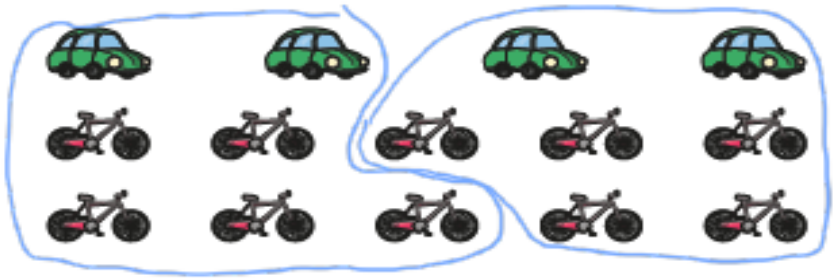
For every 3 sheep there are [6] cows.

For every 2 cows there is [1] sheep.

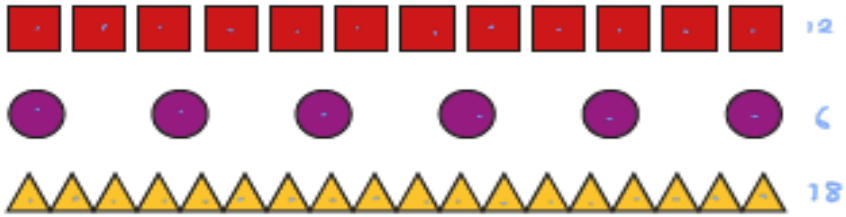
2 Circle groups to match the statements.

a) For every 1 football there are 3 tennis balls.

b) For every 2 cars there are 5 bicycles.



3 Here are some shapes.



Complete the sentences.

For every 6 squares there are [3] circles.

For every 6 squares there are [9] triangles.

For every 1 square there is [$\frac{1}{2}$] a circle.

4 a) Make a tower of cubes that has 3 green cubes for every 1 red cube.

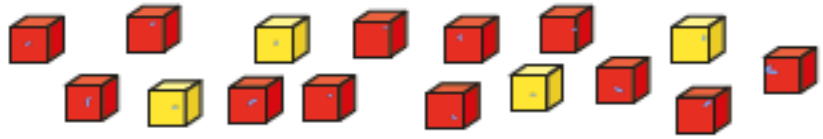
b) Compare your tower to a partner's tower.

What is the same and what is different about your tower?

5 For every 2 pencils there are 3 rulers.

Draw a picture to show this.

6 Write three different 'For every ...' sentences for the cubes.

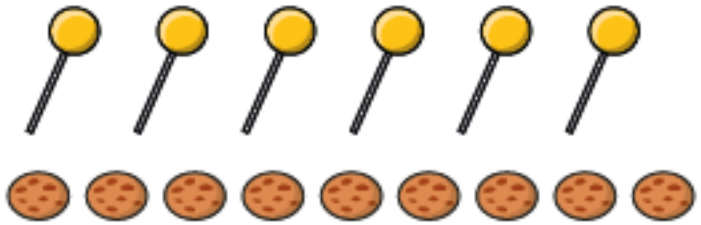


For every 12 red cubes there are 4 yellow cubes.

For every 6 red cubes there are 2 yellow cubes.

For every 3 red cubes there are 1 yellow cubes.

7 Teddy has 6 lollipops and 9 cookies.



Annie

For every 3 lollipops there are 2 cookies.

I don't agree.

Teddy

a) What mistake has Annie made?

b) Write a sentence to match the picture.

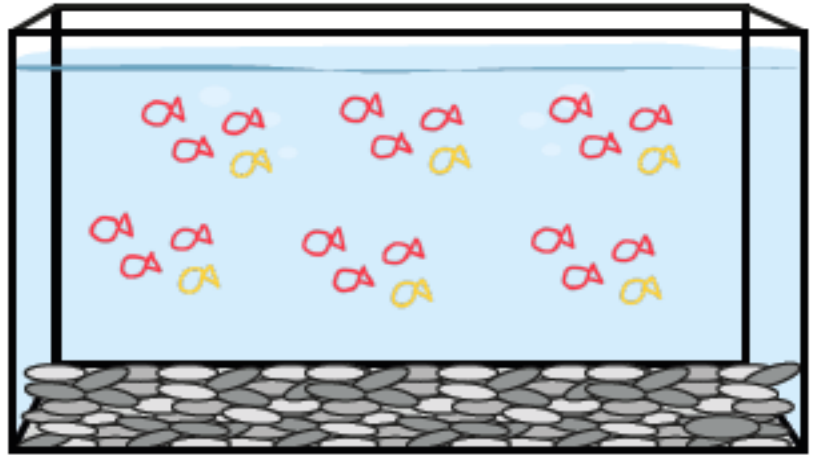
For every 2 lollipops there are 3 cookies.

8 Filip has some fish.

For every 3 red fish he has 1 goldfish.

Tommy counts at at least 20 fish in the tank.

Draw the fish in the tank.



9 In Class 6, for every 2 girls there is 1 boy.

There are 12 girls in the class.

How many boys are in the class?
You can draw the children to help you.

Girls

Boys