# Research Cards Year 3

Research cards can be laminated and used for individual pieces of research.

It is not necessary to follow through the pages in order.

This means that in a class of 30, a few sets can be prepared and shared around.

Students can work together in pairs.


## Research topics

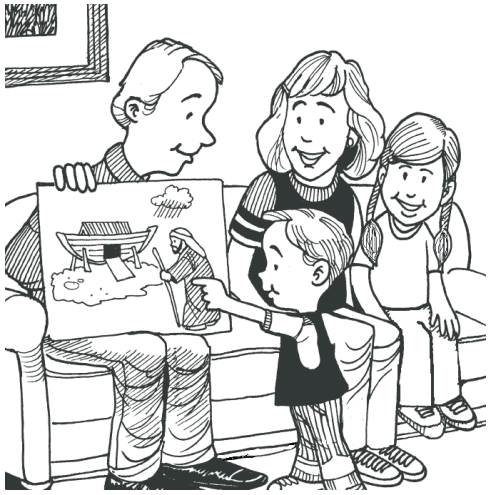
God is Love: My Family
God is Provider: Fish; Under the Sea
God is Creator: Sound and Haring; Touch
God is Wise: Safety in the Home; Safety in the Kitchen
God is Protector: Weather

**My Family 1**
**Families are God’s plan**

It is God's plan that you are a part of a family. Every family is special. There is no other family like your family. Some families are big. Some families are small. Families are made up of parents and their children. When those children grow up, they get married and have children, and so the family gets bigger. The parents become grandparents, and they often have lots of grandchildren.

People in families belong to one another. That's how God planned it. Parents love their children very much, and children love their Mums and Dads.

1. Why did God plan for people to live in families?
2. How do parents protect their children?
3. Draw a picture of your family. Draw your pets too.



**My Family 2**
**My family keeps me safe**

Because families love each other, they want to care for each other. Don't you feel safe when your Mum or Dad is around? Mums and Dads protect their children. Mums and Dads make sure that their children have all the things they need.

1. What are some of the things that you need?

Just as Mums and Dads love and care for their children, God loves and cares for all of us. He is like a great big Dad, watching over us all the time. He knows what we need. He makes sure we have the things we need. He protects us too. He is so great and mighty, He is able to help us when we need help.

2. When do you need help from your Mum or Dad?

**My Family 3**
**God is the best Dad**

Here are some Bible verses that tell us how God loves and cares for us like the best Dad in the whole world:

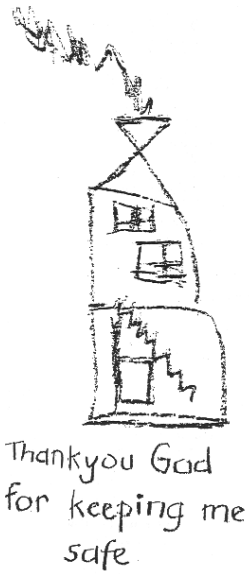
"*I will be your Father, and you shall be my sons and daughters," says the Lord.* (2 Corinthians 6:18. GNB)

*See how much the Father has loved us! His love is so great that He has called us His children.* (1 John 3:1 GNB)

God says we can call Him our Heavenly Father.

1. When might you need help from your Heavenly Father?

2. What would you do if you felt afraid?




**My Family 4**
**Being together**

Take a piece of paper and fold it into four. Draw pictures for four of these:

1. My family keeps me safe.

2. I have fun with my family.

3. I like to help my family.

4. My family helps me.

5. I can make things with my family.

6. I can make something for Mum.

Write the sentence that goes with each drawing.

**My Family 5**
**My Home**

**Draw a house.**

1. Draw some of the things inside the house.
2. Draw each person in your family.
3. Draw things that are special to your family.

4. Draw some of the things outside the house, like your garden.

**My Family 6**
**Special times with your family**

Write and draw about the special things you like to do:

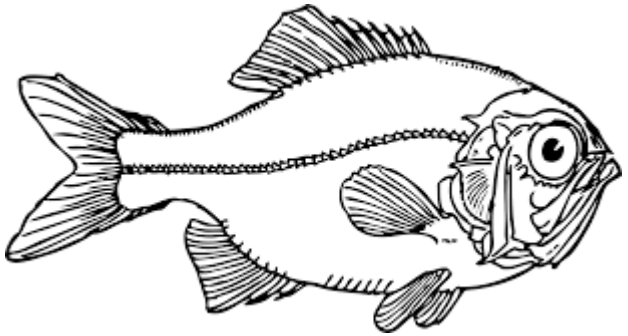
1. with your parents

2. with your grandparents

3. with brothers or sisters

## Fish 1
**Fish are vertebrates**

This means that they have backbones.
A Fish's skeleton is joined to its backbone.
Most fish have skeletons made of bone.
But sharks and stingrays have a skeleton made of cartilage.
Cartilage is softer than bone. It can bend, but it is very strong.

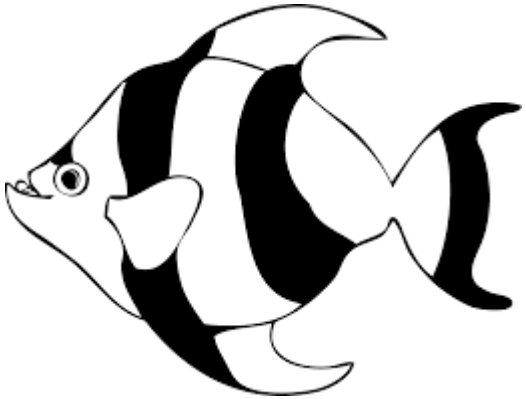


1. Draw a fish with a backbone.
2. What do sharks and stingrays have instead of bones?

## Fish 2
**Fish are cold blooded**

Their body temperatures change with the water around them.
Fish swim to a new area when the water temperature changes.

Fish that live in lakes will swim at the bottom of the lake in winter because the water is warmer there. Then they will swim to the surface of the lake in summer because the water is no warmer there.



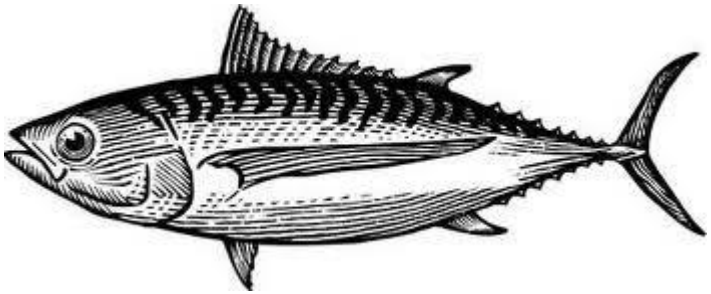
1. Why do fish swim to a new area when the water temperature changes?
2. What other animals do you know of that are cold blooded?

## Fish 3
### Bodies of fish

All fish have a body, a head and a tail.
Some fish like tuna have a torpedo shaped body. This is a long, narrow shape which helps them swim quickly through the water.

Fish have fins. Fins help a fish move through the water. Angelfish use their fins to swim between rocks.

Fish have scales. Their skin is covered with scales. Some fish have scales that are smooth. Others have rough scales that look like tiny teeth. Scales help protect fish from predators. (Predators are other animals that want to eat the fish.)

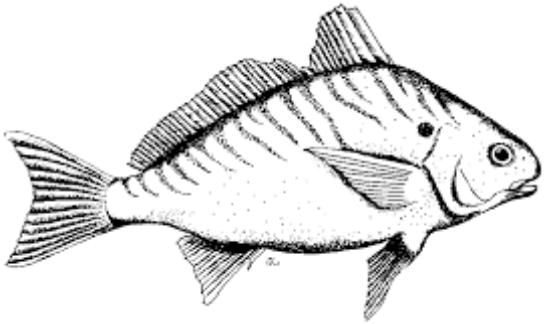


1. What is a torpedo shape?
2. How does a torpedo shape help some fish?
3. How do fins help fish?
4. How do scales help fish?

## Fish 4
### How fish breathe

All living things need air to stay alive. We breathe air through our lungs. Air is made up of several gases including oxygen. The main gas that we need to breathe is oxygen.
Sharks and other fish breathe the air that is in the water. Water moves through a fish's mouth and over its gills.

The gills take oxygen from the water. The oxygen enters the fish's blood. Animals need oxygen in their blood to live.

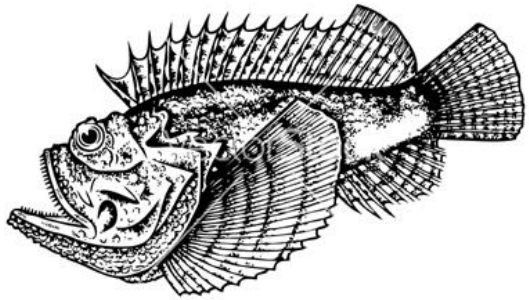


1. Draw a fish and label the gills.
2. What do fish use their gills for?
3. What is oxygen?
4. Where do we find oxygen?

## Fish 5
### What fish eat

Fish eat many kinds of food. Most fish eat other animals including other fish. Some fish eat plants.

**Poisonous fish**
Some fish are poisonous to eat.
Some have a poisonous sting when you step on them. The stone fish has spines along its back which are attached to sacs of venom. Stone fish live in tropical coral reefs.

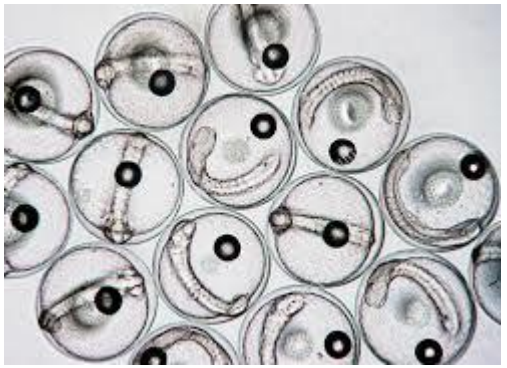


1. What do fish eat?
2. What might happen if you stand on a stone fish?
3. Where do stone fish live?

## Fish 6
### Eggs and young

Most fish hatch from eggs. Female fish usually lay many eggs at one time. Other fish eat many of the eggs before they can hatch.

Some fish, like sharks, give birth to baby sharks. The baby shark grows inside the mother shark's body until it is born.



1. How are most baby fish born?
2. How are baby sharks born?

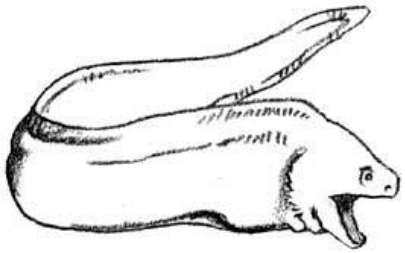
## Fish 7
### Fish that do not look like fish

**Is a seahorse a fish?**
Yes! Even though it may not look like one, a seahorse is a type of fish.

A seahorse can twist its curly tail around things to stop it from being washed away in the sea's current.

**Is an eel a fish?**
Yes! Although it looks like a snake, an eel is a type of fish.

One type of eel is a moray eel. It has a flat body like a ribbon with fins along the top and bottom to help it swim.



1. Draw a seahorse using its tail.
2. Moray eels have f___ like other fish.

## Fish 8
### How fish protect themselves

**Schools of fish**
Some fish swim in schools because they are much safer from predators than if they were swimming alone.

Fish swimming together in one group look like a big cloud. This scares away hungry predators.

**Fish can change colour.**
Some fish are pale and striped during the day but at night the stripes disappear and the body turns red.

Red cannot be seen in the dark, so at night the colour red keeps the fish safe from predators.

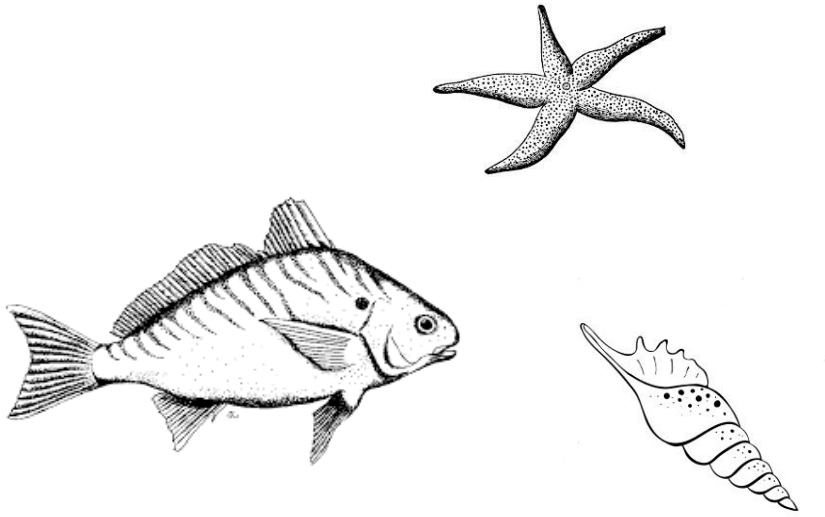
1. What is a predator?
2. Why is it good for a fish to swim in schools?
3. Why are red fish safer at night?

## Under the Sea 1

Draw a sea creature.
Write the name of your sea creature.
Write about your animal.

Does your animal have:

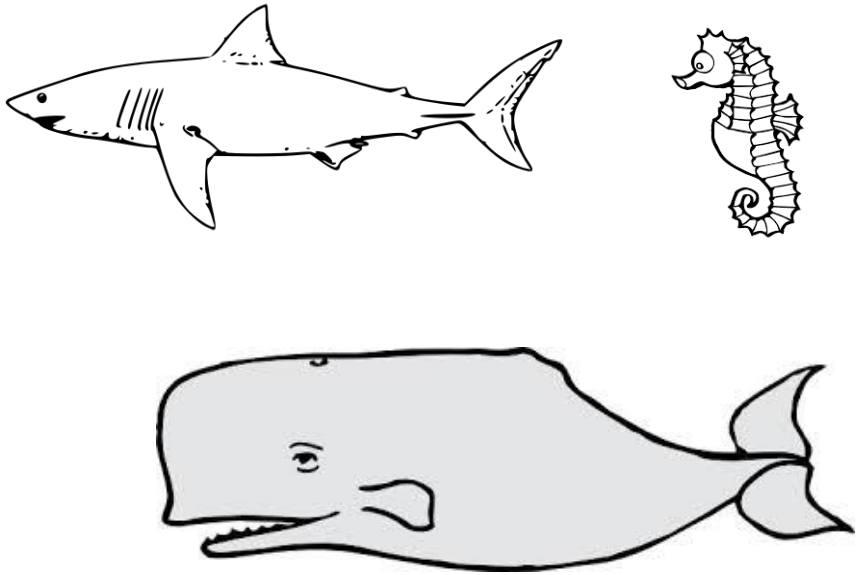
- fins?
- claws?
- a shell?
- sharp teeth?



## Under the Sea 2

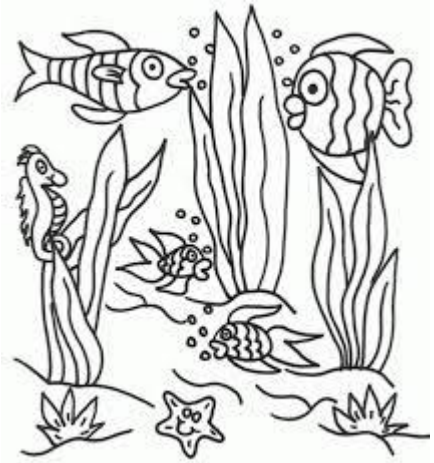
Draw a sea creature.
Write the name of your sea creature.
Write about your sea creature.

- Does your animal have bones?
- Did your animal come from an egg?
- Has your animal got a blowhole?
- What is something amazing about your animal?
- What does your animal eat?



## Under the Sea 3

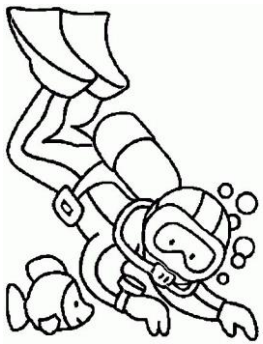
Draw a sea creature.
Write the name of your sea creature.
Describe your animal.



Is your animal:

- spiky
- shiny
- slippery
- dangerous
- friendly
- electrical
- spotty

- What colour is it?
- Does it have different colours?
- Is it striped?
- What shape is it?
- Is it big, small, heavy or light?
- Is it long or short?

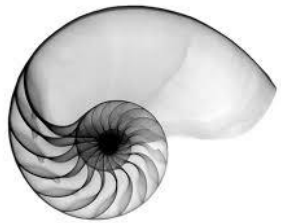


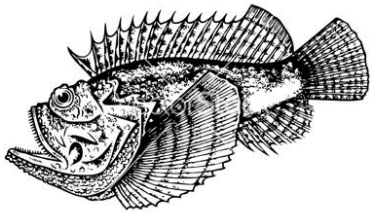
## Under the Sea 4

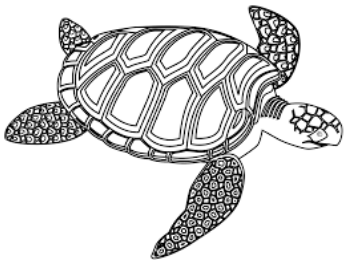
Draw a sea creature
Write the name of your sea creature.
Write about your sea creature

Does your animal

- eat other animals?
- live in a group?
- live in a coral reef?
- like the deep sea?
- like the surface?







## Safety in the home 1
**Be wise and avoid an accident!**

God is wise.
This means that He always makes the right decisions.
People need to be wise.
People need to think carefully about the things they do.
When people act wisely they do the right thing.
We can ask God to help us to do the right thing.

When we don't think carefully, we can do the wrong thing.
Accidents happen when people do not think carefully.

Accidents do not just happen on their own. Accidents can happen when people are careless, tired, angry, hurrying, being silly, afraid, thoughtless, impatient, showing off, boasting, being rude or daring.

**Describe an accident that could happen when a person is:**

- Careless
- Being silly
- Impatient
- Showing off
- Angry

## Safety in the home 2
**Be careful!**

**What could happen if you:**

a) run inside?

b) Run around a corner?

c) show off on your bike?

d) Show off jumping on your bed?

e) Rush when cooking with hot things?

f) Rush and pull out electrical plugs without switching them off?

**Hot water hurts**

1. Make a list of all the places in your home that have hot water.

2. What do you have to remember when around hot water? Remember that it doesn't take much hot water to burn you. Steam burns badly.

## Safety in the home 3
### Safety in the kitchen

1. What are some of the safety points to remember in the kitchen when using…?

a) A stove

b) knives

c) kettle of hot water

d) electrical appliances

and when carrying…?

e) hot things

f) things made of glass

2. What would you do if some glass was broken?

## Safety in the home 4
### What would you do?

1. A box of biscuits is high on a shelf. How will you get them?

2. How do you close doors properly? Think about fingers.

3. What do you need to think about with electrical appliances and water?

4. How can toys be dangerous?

### Safety rules

1. Think of and write 5 of the most important safety rules for your home.

2. What would be five safety rules for our classroom?

## Safety in the home 5

**Reading directions**

The label on a bottle of pills says:

**Cough fix**
**Take 3 a day after meals**

**Do not take with meals**

**Keep in a cool place**

1. What are these pills for?
2. When should the pills be taken?
3. How many are needed per day?
4. What must you never have with these tablets?
5. Where would be the best place to keep these tablets?

The label on a dress says:

**100% nylon**
**Wash in warm water**
**Keep away from heaters and fire**

1. What is this dress made of?
2. How should you wash this dress?
3. What must you never go near when wearing this dress?

## Safety in the home 6

**Be a wise in everything you do**

God wants us to be wise in all we do. When we act wisely we can set an example to our friends and family, especially to younger children.

When we act wisely we lead the way by showing others how to act.

This is what the bible says about wise leaders:

*Wise leaders will shine with all the brightness of the sky. And those who have taught many people to do what is right will shine like the stars forever. (Daniel 12:3)*

1. What does it mean to lead the way in being wise?
2. Who could YOU teach about being wise?
3. What is the reward for those who act wisely?

**Safety around water**

1. Make a list of wise rules to follow for safety around water. Think about rivers, swimming pools and the sea.
2. What is the most important thing to remember If you are looking after a little child near water?

## Safety in the kitchen 1

Sniffer wants to tell us to be careful of hot things.
Copy these examples and draw a picture for each.
Put a tick next to the things that are safe.
Put a cross next to the things that are unsafe.

Leaving saucepan handles over the edge of the stove

Using an oven mitt for handling hot things

Picking up hot food with your hand

Keeping matches away from small children.

Sniffer says, "Be careful around hot

## Safety in the kitchen 2

Sniffer wants to tell us to be careful in the kitchen.
Copy these examples and draw a picture for each.
Put a tick next to the things that are safe.
Put a cross next to the things that are unsafe.

Taking care around people with hot drinks

Leaving toys on the kitchen floor

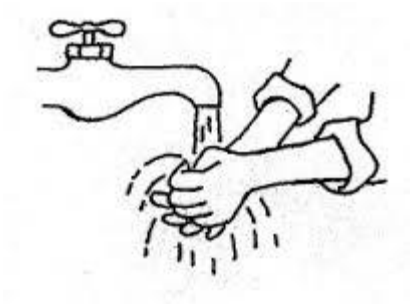
Running and playing around Mum when she's preparing hot food.

Cleaning up spills on a slippery floor

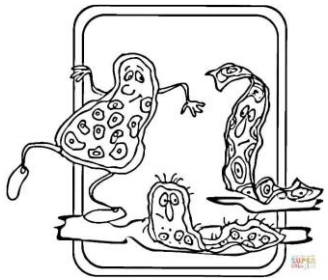
Sniffer says, "Take care in the kitchen!"

## Safety in the kitchen 3
**Wash your hands!**

Draw a picture of yourself washing your hands.



Germs are tiny creatures that we cannot see.
Write down some of the places that germs like to live.



Why should we keep the kitchen very clean?

## Safety in the kitchen 4
**Dry your hands!**

Draw a picture of yourself drying your hands. Keep paper towel or a very clean hand towel in the kitchen.

Germs do not walk but they swim. Why is it important to wash AND dry your hands before preparing food?

What happens when bad germs enter the inside of your body?

Sniffer says, "Do not dry your hands on the same towel that you use for drying dishes."

## Safety in the kitchen 5
### Hand washing

Draw a picture of your hand.
Write down the answers to these questions:
Why should wash our hands? *(Germs)*
What should we wash our hands with? *(Soap and clean water)*
When should we wash our hands? *(After going to the toilet, before meals and before preparing food)*
How should we wash our hands? *(Rub hands together under running water)*
Who should wash their hands? *(Everyone!)*


## Safety in the kitchen 6
### Food safety

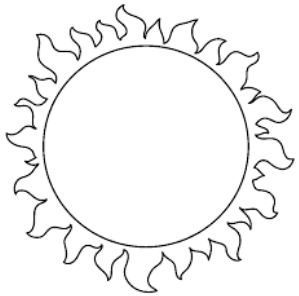

1. Write down five accidents waiting to happen in this kitchen.
2. Some foods go bad if you leave them out of the refrigerator. Choose the foods that should go in the fridge from this list. Write them down. Think of some others.
    - Meat
    - Dry lentils
    - Milk

3. Why does tinned food not need to be refrigerated? Why does it need to be refrigerated once you open it?
4. What happens when you eat food that is affected by bad germs?

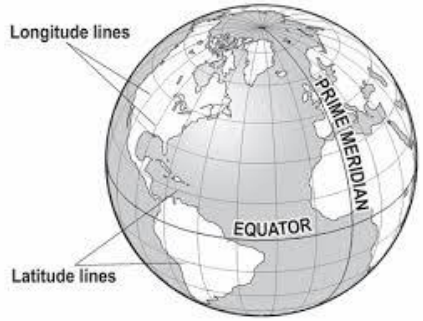
# Weather 1
## What is weather?

Weather is wind, rain and sunshine.

Weather starts with the Sun.



The Sun is a huge ball of exploding gases. The explosions cause the Sun to send out enormous amounts of heat. Some parts of the Earth are heated much more than other parts. Have a look at a globe of the Earth and you will see why.

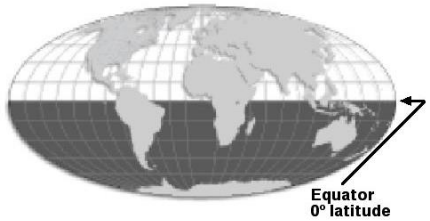



Around the middle of the globe is an imaginary line called the equator. While the Earth goes around and around the Sun, the Sun shines almost straight at the Equator. But at the North and South Poles, Sun's rays can't warm the Earth at the Poles nearly as much as at the Equator.

1. How does weather affect the way we dress?
2. How does weather affect our activities?
3. Why is the weather hotter at the Equator than the North Pole?
4. Copy the globe. Mark the Equator and the North Pole.

# Weather 2
## Seasons

Seasons are different types of weather.
The Earth is tipped on an angle as it goes around the Sun. For half the year, the Southern Hemisphere, (the bottom half of the globe), is tilted towards the Sun. It gets more heat at this time of the year. It is Summer in places like Australia. The northern Hemisphere is tilted away from the Sun, so places like England are cold. It is Winter there.




There are four seasons in countries that are not close to the Equator: Summer, Winter, Autumn and Spring.
Summer = hot
Winter = cold
Autumn and Spring = cool

Countries near the Equator are hot all the time. They have two seasons: wet and dry.

1. Draw a globe. Colour the Southern hemisphere green and the Northern hemisphere blue. Name them.
2. In which Hemisphere is your country?
3. Mark in the Equator.
4. Name the four seasons.
5. Name a country that has all four seasons.
6. Name a country where it is hot all the time.

# Weather 3
## Snowy weather

Water vapour is made of little water droplets in the air. The clouds are made of water vapour. When water vapour freezes and falls from the sky it is called snow. This happens when the temperature in the clouds is very cold.

Snowflakes are made up of crystals of ice that have formed around bits of dust in the air. The snowflakes start out very small and grow. Each snowflake is different and might contain up to 200 crystals. A snowflake has six sides.

If you live in a place where it snows you can build a snowman.

1. Name a country where it snows.
2. What is snow?
3. Draw a snowflake.
4. What can you do with snow?

# Weather 4
## Windy weather

**What is wind?**
Wind is moving air.

**How do we measure wind?**
When someone gives a weather report on wind, they say how fast the air is moving (*speed*), and from which *direction* it is coming.

**What causes the wind to blow?**
Some parts of the Earth's surface are hot and other places are cold. Warm air rises because it weighs less than cold air. Then cool air moves in and replaces the rising warm air. This movement of air is what makes the wind blow.


1. What is wind?
2. What are the two words used to give a weather report on wind?
3. List four directions that the wind could be coming from.

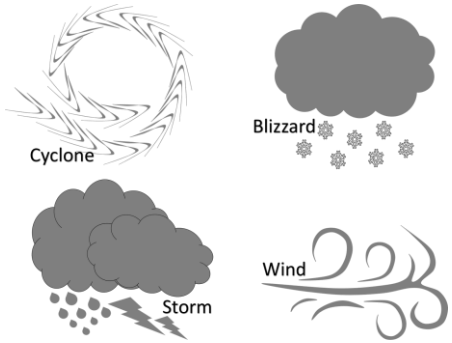
# Weather 5

## Stormy weather

A storm is when there are extreme weather conditions such as heavy rain, lightning, thunder, hail, snow, damaging winds, and freezing rain.

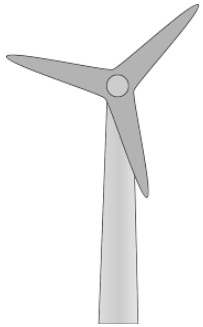
## Damaging winds

Damaging winds are winds with a speed of more than 80 kilometers per hour. There can be winds that blow in a straight line, or winds that blow in a circular movement such as a tornado or cyclone.




## Wind is helpful

Wind can provide us with electricity. It is not expensive and does not create pollution. Electricity is produced by windmills as wind blows over the blades which turn and cause an electric generator to produce electricity.



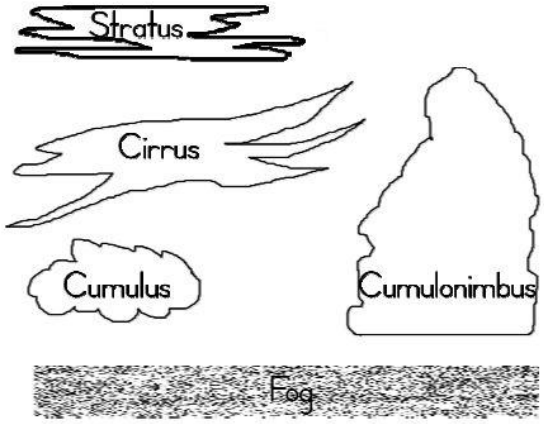
1. What types of weather make up a storm?
2. What are damaging winds?
3. How can wind be helpful?

# Weather 6

## Cloudy weather

A cloud is a large group of tiny water droplets. Clouds are formed when water on Earth is heated by the sun, turns to steam and goes up into the sky. This is called evaporation. Clouds are like balls of steam up in the sky. The steam turns to water droplets and then it rains.

There are different types of clouds, the main types are:
Stratus: flat clouds that look like layers of sheets, high up in the sky.
Cirrus: thin, wispy, high up in the sky.
Cumulus: puffy white clouds that look like cotton wool floating in the sky.
Cumulonimbus: dark clouds that are heavy with rain, not so high up in the sky.




1. Draw and name the different types of clouds.
2. Which type of clouds bring rain?

# Weather 7
## Rainy weather

Rain is made of water drops that fall from clouds.
This is called precipitation.

Water can also fall from the sky in the form of hail, sleet or snow.

Rain gauges are used to measure the amount of rain over a certain period of time.

Heavy rain can cause flooding and landslides.

Plants need water in order to survive; they receive much of this water from rain.

Forests in areas of high rainfall are called rainforests.

In areas where there is much pollution from factories and power stations, acid rain sometimes falls. It can be harmful to plants and animals.

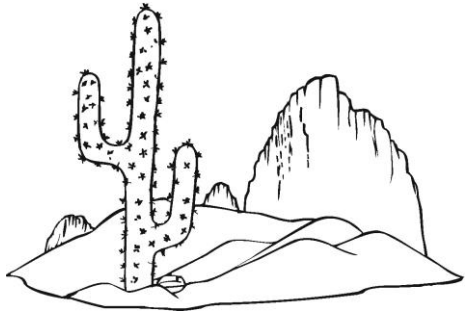
1. What is precipitation?
2. Draw a picture showing that plants need rain to survive.
3. Draw a picture showing how acid rain can be formed.

# Weather 8
## Hot and humid climates

Tropical climates are found in areas that are close to the equator. Here it is hot and steamy (humid). The temperature is much the same every day. You can expect lots of rain, warm nights and hot days. The seasons change only slightly.

**Dry climates**
Deserts are places with dry climates. Few plants, animals and people can survive here. Deserts are found in parts of Africa and the Middle East.

Deserts can be sandy or rocky. A cactus is a desert plant. It holds water inside the stems and leaves. It can survive a long time with no water. A cactus usually has prickles. These protect the plant from being eaten by animals.



1. What is hot, humid weather like?
2. Where is it hot and humid most of the time?
3. What are deserts?
4. What plants might you find there? Draw and name one.
5. What is this plant like?

## Weather 9
**Protection from extreme weather**

When the sun is hot we can protect our face and head by wearing a ……...

We can protect ourselves from rain by using …….

We can protect ourselves from a lightning strike by …….

In countries where it snows, people protect themselves from extreme cold by …….

We can protect ourselves from very strong winds by ……

You should not shelter under a tree in very strong winds because …….

Draw and name what you need to protect yourself from three different weather types: cold, sun and wind.

## Weather 10
**Protection from extreme weather**

**The Rotahome**
Some houses have been designed to stand firm in wild weather. Here is one type, the “Rotahome”:

These houses have been designed by Peter Drysdale, an Australian, who moved to Fiji. He wanted to design houses that were low cost and also cyclone proof.

Cyclone Winston in early 2016 caused massive destruction in north and east Viti Levu.

In the hills and the sugar cane area near Lautoka there are 943 Rotahomes and 231 of them are at Koroipita. They were hit by the cyclone but there was no damage to these homes.

1. How do you think you would build a cyclone-proof house?
2. Draw your idea.

## Weather 11
### Protection from extreme weather

**The Yurt**
The people of Mongolia build tents that are round. These are called yurts. They are made of animal skins and wool. The skins are stretched over bamboo frames. The Yurt is sealed from the cold winds, and inside a fire is lit to keep them warm.

1. Look at a map of the world. Find Mongolia. Name two countries near Mongolia.
2. What is the weather like in Mongolia?
3. Draw a yurt and label the materials used.

## Weather 12
### The Igloo

The Inuit people live in Alaska, northern Canada and Greenland. They used to build homes of large blocks of ice. The ice sealed the home from the cold air. Inside it was warm.

Today the Inuit people live in normal homes but still make igloos when they go on hunting trips. Now they can buy food that is brought in from other places, but once they had to eat only the food that they could hunt or catch from the sea. They could not grow food because the climate was too cold.

1. Look at a map of the world. Find Alaska, Canada and Greenland. In which country is Alaska?
2. What is the weather like in these places?
3. What was their main food?