

Five Kingdoms of Life Cards

These cards were created to introduce the five kingdoms of life to young students. They are one of the props or toys in our educational packets. Kids find this way of study more like play.

FIVE KINGDOM OF LIFE



Play a learning game with these Learning cards. See the drawings and guess the Kingdom on the other side. Do it till you can get every one right. Teach your friends.

Scientists have classified all life forms into groups of species with similar characters. There are five groups which are called Kingdoms.

The five kingdoms of life are:

Kingdom 1: Monera

Kingdom 2: Protista

Kingdom 3: Fungi

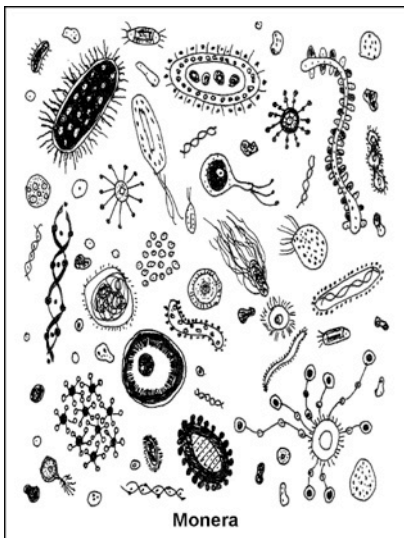
Kingdom 4: Plantae

Kingdom 5: Animalia

All living organisms are assigned to a particular Kingdom according to certain characteristics.

All species in a Kingdom are similar to one another in some way.

So far scientists, field biologists, and naturalists have discovered about 19 lakhs (18,97,000) species on earth. Scientists estimate that the number of species yet to be discovered may be at least 40 lakhs species.



Monera

Kingdom 1: Monera

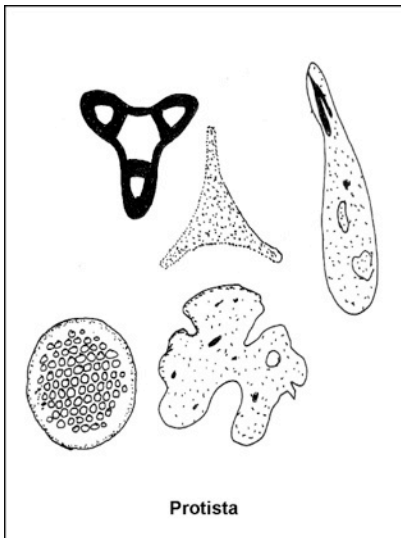
(e.g. Bacteria)

Do your parents ask you to wash your hands before eating? By doing so you wash the germs off your hands! Those germs are living things called Monerans. They are very, very tiny living things and there are many kinds. All these kinds are grouped under Kingdom Monera.

Monerans are single-celled organisms without even a membrane (sort of skin) around the nucleus (centre).

Monerans cannot be seen by the naked eye because they are so small. More than a million of them can fit on the tip of your finger. They are in the air, on our skin, on the surface of plants and roots, in the deepest parts of the ocean and even inside our body. Millions of these bacteria fill the intestines of humans and other animals. In short, Monera (bacteria) can live anywhere.

Some of these bacteria do good things like help in digestion, or turn milk into curd. Some of them do bad things, like infect organisms with diseases. Many of them are harmless. So far 9,000 types of Monera are known to science.



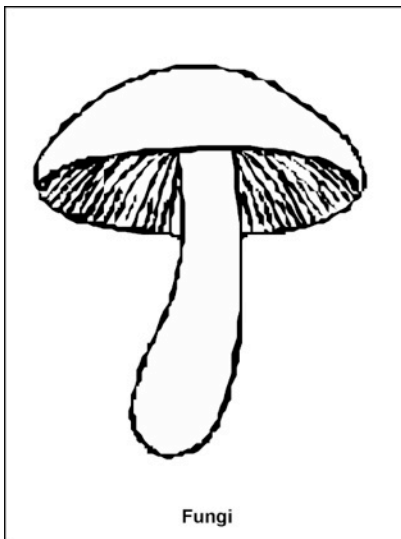
Kingdom 2: Protista

(e.g. amoeba, diatom, euglena, paramecium, some unicellular algae)

Protists are also single-celled organisms with a nucleus (centre) and a nuclear membrane (skin) around it.

Some protists look like plants and others look like animals but they are all different.

They live in moist and aquatic areas. There are about 70,000 kinds of protists reported so far. These are important in ecosystems as primary producers and primary consumers. Some protists are able to cause disease in humans and other animals but overall, protists are beneficial to the living world.



Kingdom 3: Fungi

(e.g. mushroom, mold, shelf fungus, yeast)

Have you ever bought mushrooms from the market or collected under a bush a day or two after a heavy rain? If you leave your bread on the shelf too long, then you can see fungi grown on it. Athlete's foot is a common fungus which feeds on a living host, that is you !

Fungi occur in a wide variety of sizes and shapes. Amazingly, although fungi look like a plant they are also closely related to animals.

They get their food from other sources since they cannot convert the sun's rays into energy like plants do.

Edible mushrooms are well-known examples of fungi. We use fungi (yeasts) to make bread, in fermenting beverages and for producing some medicines like penicillin.

Fungi have long been used for production of antibiotics, vitamins, anti-cancer and cholesterol lowering drugs. So far 72,000 fungi are known to science.



Plantae

Kingdom 4: Plantae

(e.g. trees, ferns)

A day for you and me will not pass without using plant or plant products.

Plants include familiar organisms such as trees, herbs, bushes, grasses, climbers, ferns etc.

All food required for most of the life on earth are obtained through plants by a process called photosynthesis.

Plants use the energy of the Sun to convert water and carbon dioxide into sugar and oxygen, without which we cannot live.

Plants are responsible for most of the photosynthesis process though some Protists and Monerans can also perform photosynthesis.

Plant products such as wood are used for buildings, furniture, paper, cardboard, musical instruments and sports equipment.

They also provide cloth, fuel, medicine, natural products such as fibers, cooking oils, drugs etc. Kingdom Plantae includes about 2.7 lakh species.



Animalia

Kingdom 5: Animalia

(e.g. bird, fish, insect, bat, man)

Animals are seen everywhere including our home. When you think of an animal you might think only of bigger animals like tigers, elephants, horses, etc. Vertebrates such as mammals, birds, amphibians, reptiles, and fish occupy only 2% of all animals reported so far. The rest are animals without back bones like insects, crabs, spiders, millipedes etc.

Animals are classified into vertebrates (animals with back bones) and invertebrates (animals without back bones).

There are 29 major groups among invertebrates and 5 groups among vertebrates.

The vertebrate groups include fishes, amphibians, reptiles, birds and mammals. Crabs, dragonflies, butterflies, beetles, earthworms and spiders are some examples of invertebrates.

So far, about 14,76,000 kinds of animals are known to science and man is just one species of all living things.

Climate Change Game Board

This game board is another way to make learning about weather fun for kids.

Game board - weather protection

Match the items needed to protect yourself from different types of weather. Draw a line from the weather to the item or items you need. There is one "best choice" for each type of weather. The "best choice" is the right choice in this game. The example given is correct. Answers are on the back but don't look until you finish your game.

rain

snow & ice

tsunami

drought

hail

flood

cyclone

lightening

thunder

extreme heat

no protection needed

warning, shelter and prayer

hat, umbrella, shade, water

waterproof, slip proof shoes

any shelter, car or truck cab

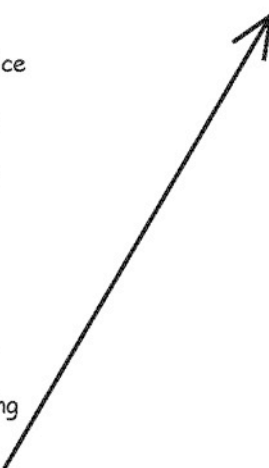
ditch, basement, small room

shelter, hard hat

umbrella

high ground, stairs to roof

keep supply of stored water



Climate Change Game Board

Correct answers to Weather protection

rain -- umbrella - (to protect your head and clothing so as to prevent colds and pneumonia)

extreme heat-- hat, umbrella, shade, water (to prevent sun-stroke, heat-stroke and dehydration)

snow & ice -- waterproof, slip proof shoes -- (to prevent slipping if you are outside)

tsunami -- warning, shelter and prayer (prayer is probably most important to keep you alive as tsunami comes very fast)

drought -- keep supply of stored water (to save your life; to prevent dehydration)

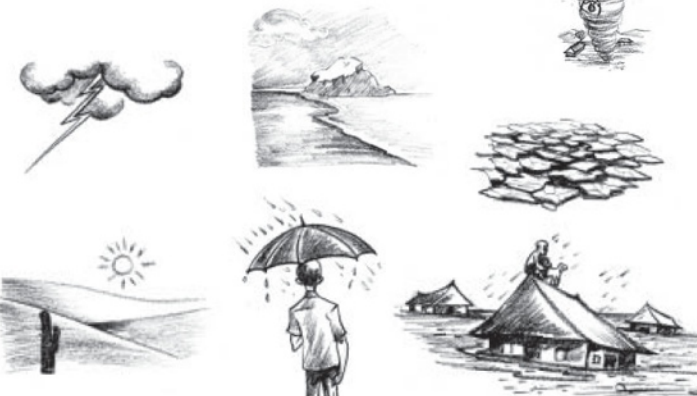
hail -- shelter, hard hat (hail is hard if the hailstones are large, you need to protect your head)

flood -- high ground, stairs to roof (to keep from spending days in water, disease and drowning)

cyclone -- ditch, basement, small room (protection from flying objects and from being literally carried away)

lightening -- any shelter, car or truck cab (in an enclosed vehicle the rubber tires will absorb lightening)



thunder -- no protection (thunder itself can't hurt you -- hal trick question)!



Climate Change Game Board

Game board - guess the gale

An "outrun-the-weather" game. Assess these wind conditions by ranking them in order of strength, from weakest to strongest. You can use the numbers associated with the terms given. Answers and names of conditions given on the back. Ask an older person to help you if you have problems with this.

 62-74 km/hr	0 - Calm	 1-5 km/hr	 39-49 km/hr
 89-102 km/hr	1 - Light air		
 29-38 km/hr	2 - Light breeze		
	3 - Gentle breeze	 below 1 km/hr	 103-117 km/hr
 12-19 km/hr	4 - Moderate breeze		
	5 - Fresh breeze		
	6 - Strong breeze		
	7 - Strong wind		
	8 - Fresh gale		
 over 117 km/hr	9 - Strong gale		 50-61 km/hr
 6-11 km/hr	10 - Storm	 75-88 km/hr	 20-28 km/hr
	11 - Violent storm		
	12 - Hurricane		

Climate Change Game Board

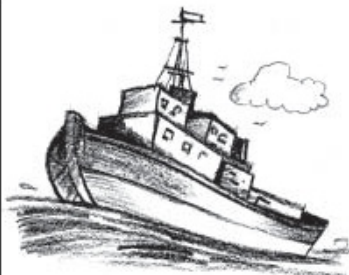
Correct answers to Guess the Gale

The Beaufort Scale

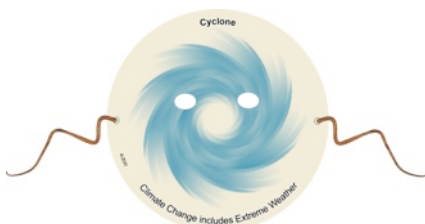
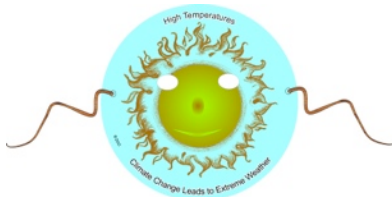
Beaufort number	km/hr*	Clues at sea	Clues on land and type of wind
0 - Calm	below 1	Smooth water	Smoke rises straight up
1 - Light air	1-5	Small ripples	Smoke drifts sideways
2 - Light breeze	6-11	Small wavelets	Leaves and weather vanes move
3 - Gentle breeze	12-19	Large wavelets; foam	Twigs move
4 - Moderate breeze	20 - 28	Small waves	Branches move; flags flap
5 - Fresh breeze	29 - 38	Medium waves; spray	Small trees sway
6 - Strong breeze	39 - 49	Large waves; upto 10 feet	Large branches sway
7 - Strong wind	50 - 61	Waves 18 - 24 feet	Large trees sway; flags stand straight out
8 - Fresh gale	62 - 74	Waves 23 - 33 feet	Twigs break; hard to walk
9 - Strong gale	75 - 88	Waves 25 - 33 feet	Signs blow down
10 - Storm	89 - 102	Waves 29 - 40 feet	Trees fall over
11 - Violent storm	103 - 117	Waves 37 - 50 feet	Widespread damage; foam covers surface
12 - Hurricane	over 117	Waves 45 - 60 feet	Widespread destruction; heavy spray and foam

* km/hr - kilometer/per hour

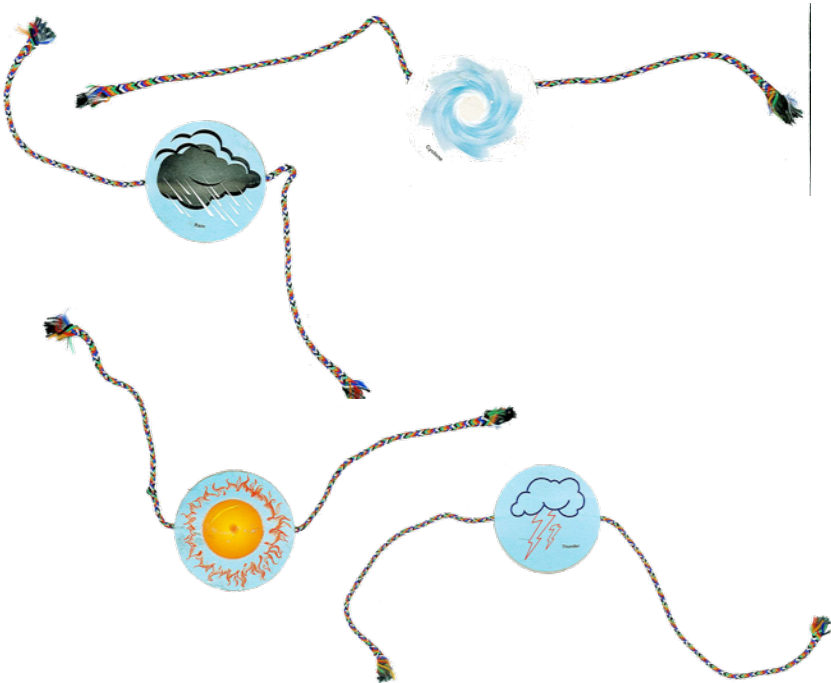
The Beaufort Wind Scale is a measure to estimate wind speeds and its effects on land which can be estimated through visual observations. The scale starts with Zero and goes to a force of 12. A British admiral named Francis Beaufort (1774-1857) came up with this system so that sailors had a way to describe the wind's strength that mean the same thing to everybody. The Beaufort scale is still used today to estimate wind strengths.



Climate Change Masks & biodiversity placards in photo for drama, skits, demonstrations & learning

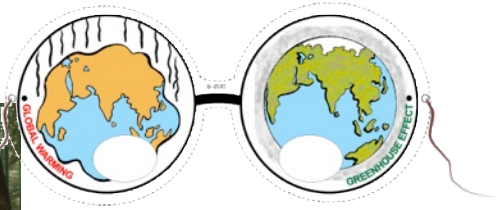


Climate Change commitment bracelet (Rakhi)



Climate Change and biodiversity props

Glasses



Armband



Climate Change and Biodiversity Stickers

If people “lived more simply” they would not contribute to climate change.

