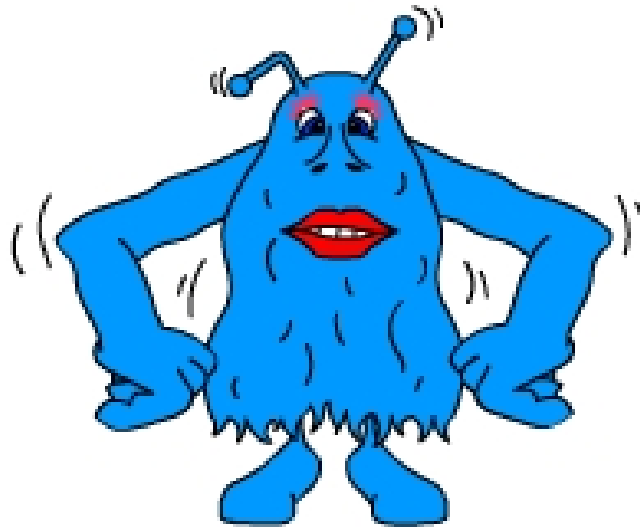


CLASSIFICATION OF ANIMALS

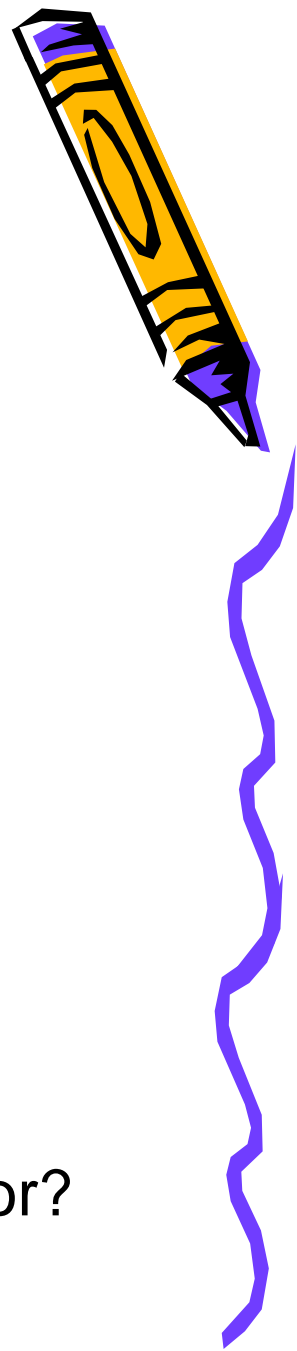
- Learning Objectives : To explain how animals are classified into groups.
- Key Words:

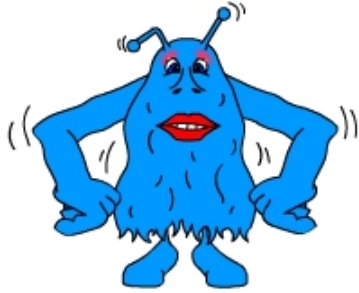
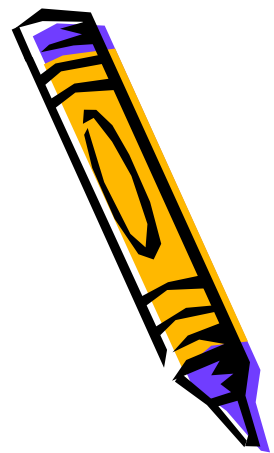
- How do we identify living from non living?

- There are seven essential life processes.
- To remember these processes meet our little blue woman MS. R. NERG...



What do all the letters in her name stand for?





M = MOVEMENT

Living things are able to move about.
Animals move from place to place.
Plants move by responding to light.



S = SENSITIVITY

Living things notice and react to changes in their surroundings. They can respond to light, heat, sound, taste, sight or touch.



R = RESPIRATION

Living things need energy to carry out the functions that keep them alive.





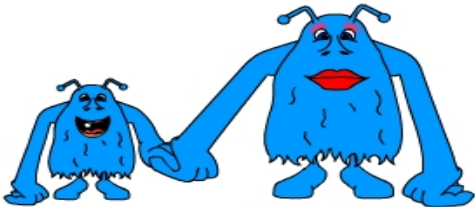
N = NUTRITION

Living things need to take in food.



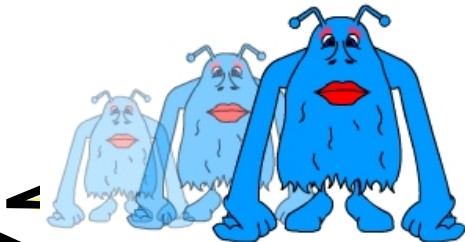
E = EXCRETION

Living things have to get rid of unwanted waste products.



R = REPRODUCTION

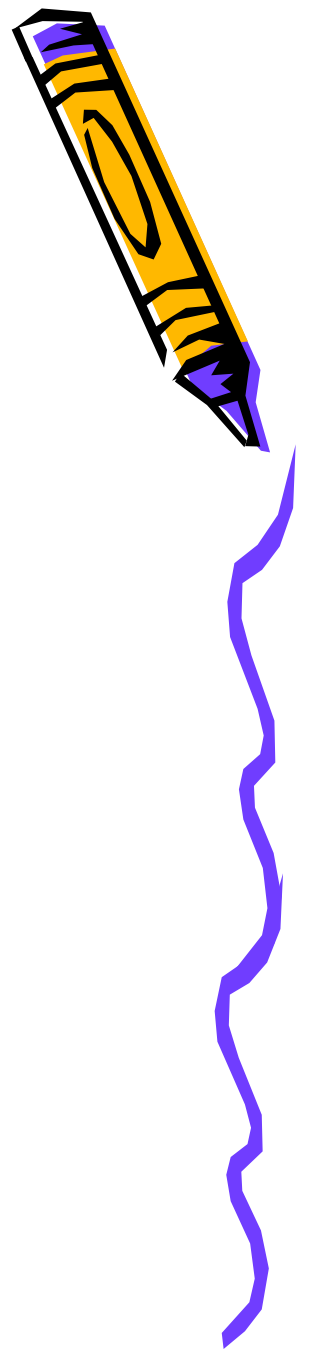
Living things produce offspring.



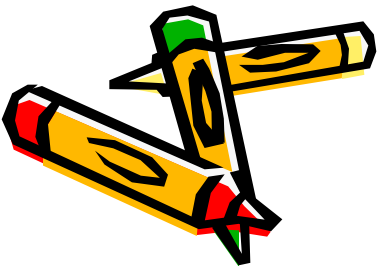
G = GROWTH

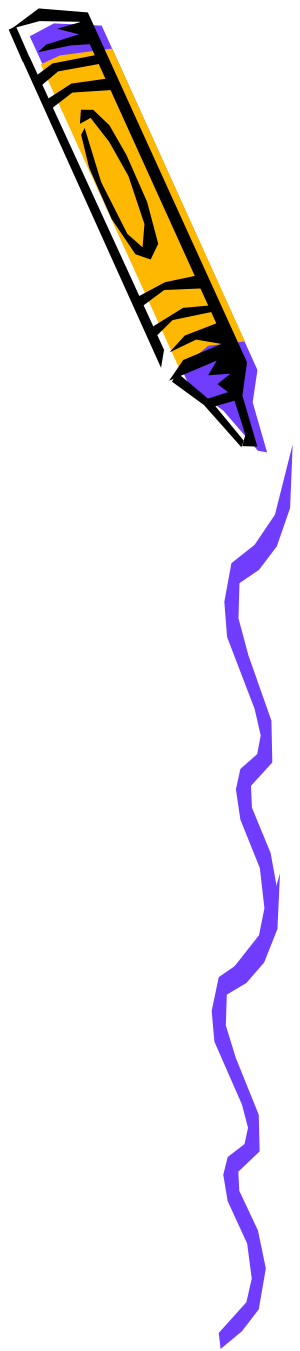
Living things grow, increasing in size and complexity.

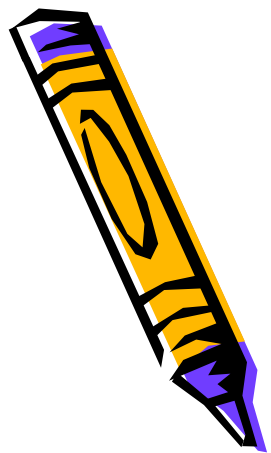




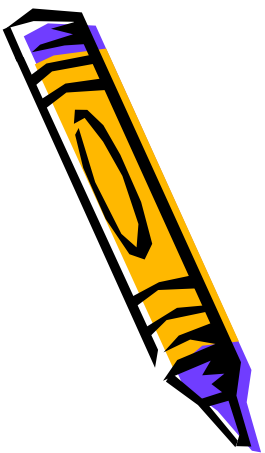
- Look at the pictures of animals:
- Are they same/different
- How can you put them into groups.(5mins)











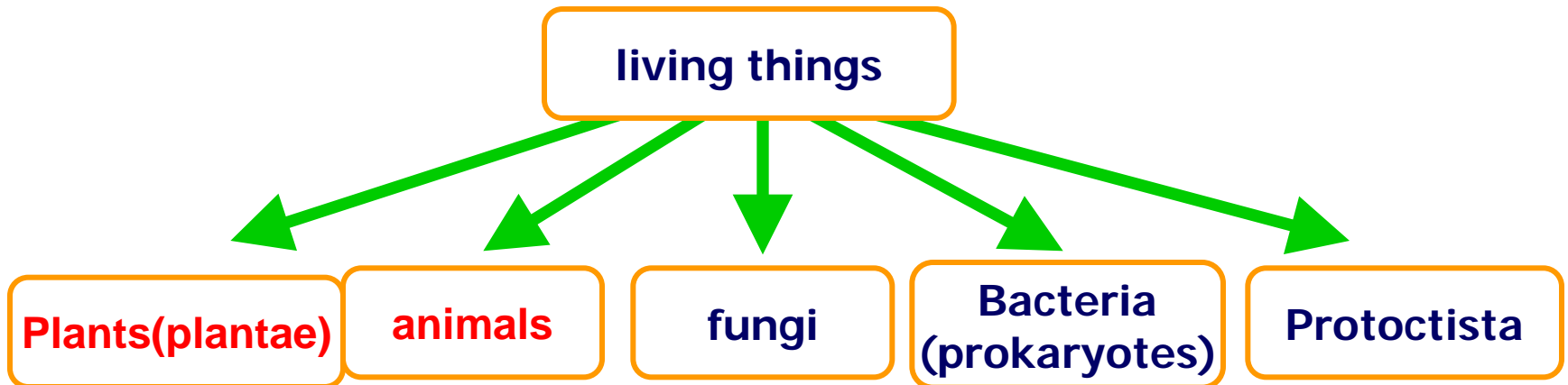


Classification is sorting out all organisms into groups according to the similarities between them.

Organisms are divided into two main kingdoms: the animal kingdom and the plant kingdom.

The Classification System

All living things are classified into **five main groups** called **kingdoms**.



Most living things belong to the **animal kingdom** or the **plant kingdom**.

Classifying Animals



In the front of your book make a list of as many different animals as you can think of.....you only have 1 minute!

Now, circle the vertebrates and underline the invertebrates.



Vertebrate	Invertebrate

Vertebrates – animals with a backbone.

Invertebrates – animals without a backbone.

Animal Kingdom

Vertebrates

Mammals



Fish



Reptiles



Amphibians



Birds



Invertebrates

Cnidarians



Flatworms



True worms



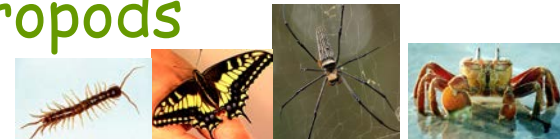
Molluscs



Echinoderms

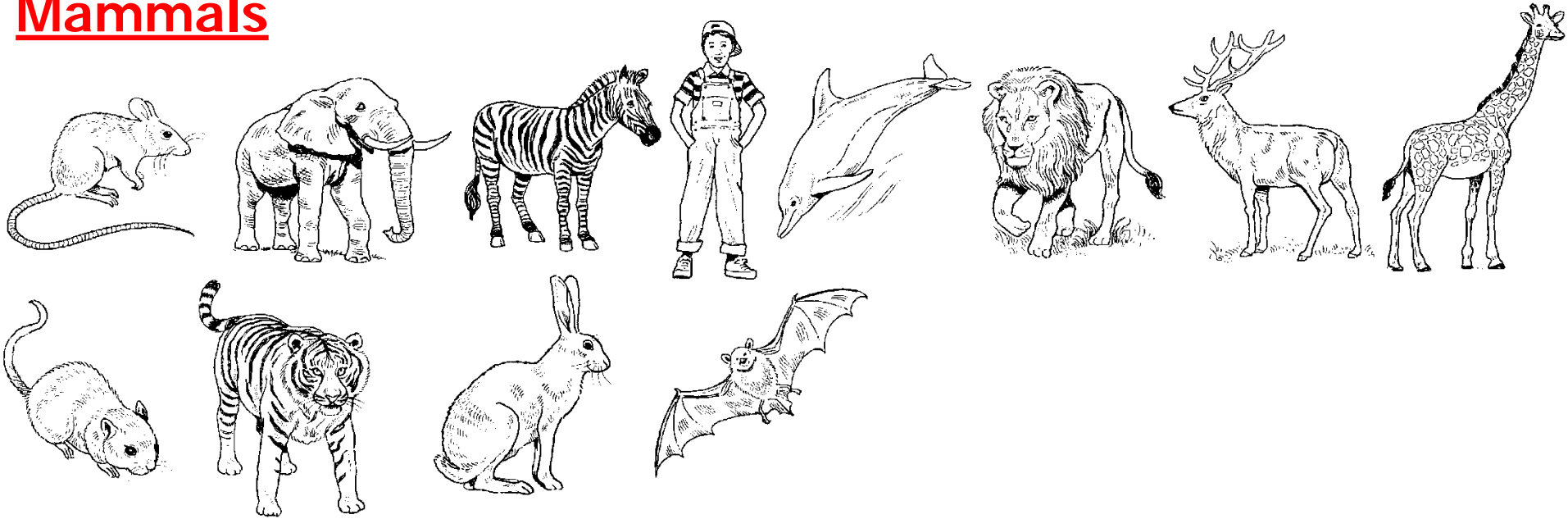


Arthropods

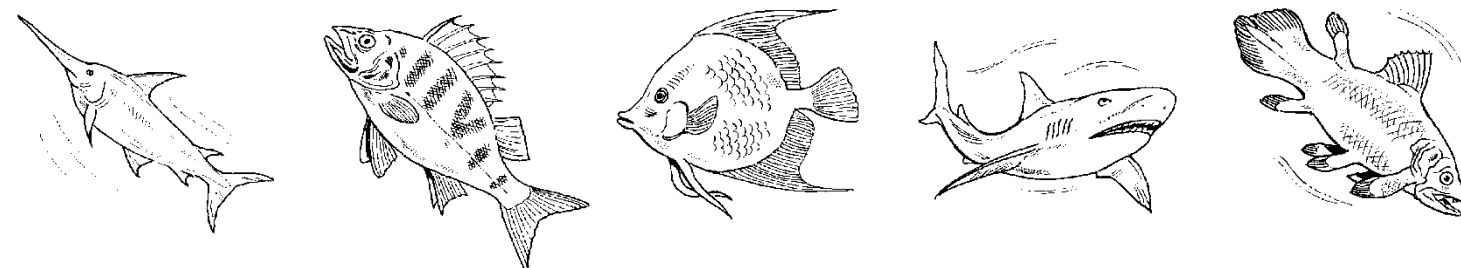


Classifying Vertebrates

Mammals



Fish



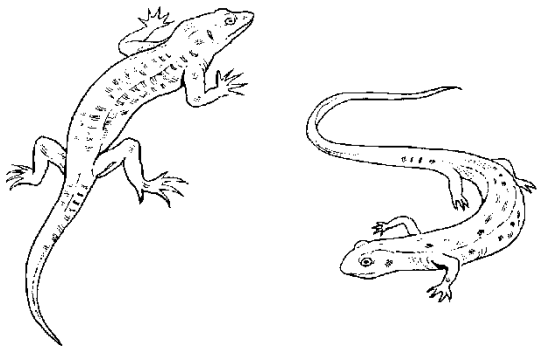
Reptiles



Birds



Amphibians








Who correctly
classified their
vertebrate?

Classifying Vertebrates



Vertebrates are classified into 5 groups.

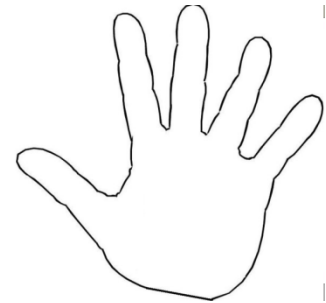
Complete the table of features for each type of vertebrate.

	mammals 	birds 	reptiles 	amphibians 	fish 
body covering	hairy or furry skin	feathers	tough skin with scales	soft, moist skin (no scales)	scales
how it breathes	lungs	lungs	lungs	lungs	gills
where it lives	mostly on land	on land	mostly on land	on land and in water	in water
how offspring are produced	most young born alive	lay eggs	lay eggs	lay eggs (in water)	lay eggs

Confidence Check

Show from 1-5 on how confident you are on each success criteria.

1 is not at all confident, 5 is super confident



Success criteria

1. I can state what is meant by the term classification.
2. I can describe the difference between invertebrates and vertebrates and their subdivisions using examples.

All _____ are put into one of five _____. The _____ and _____ kingdoms are divided into _____.

The _____ kingdom is divided into _____ (which all have backbones) and _____ (animals without backbones).

The _____ group is divided into _____ more groups.

Mammals have _____, give birth to live _____ and produce _____.

Birds have _____ and lay eggs with _____.

Reptiles have _____ and lay eggs with _____.

Amphibians have _____ and lay eggs in water.

Fish have _____ and lay eggs in water.

Examples

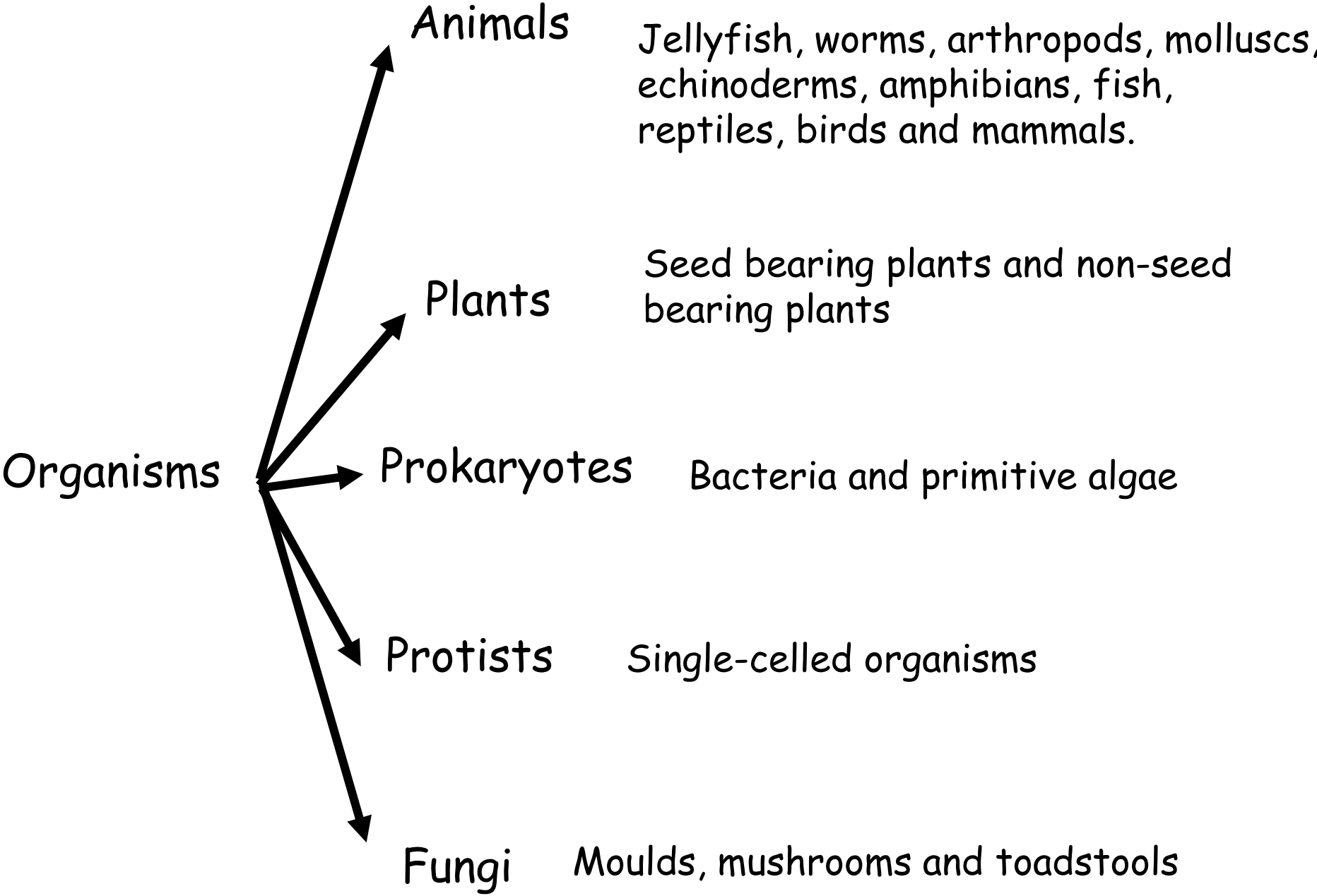
Invertebrates include:

- _____
- _____
- _____
- _____
- _____

Vertebrates include:

- _____ (a mammal)
- _____ (a bird)
- _____ (a reptile)
- _____ (an amphibian)
- _____ (a fish)

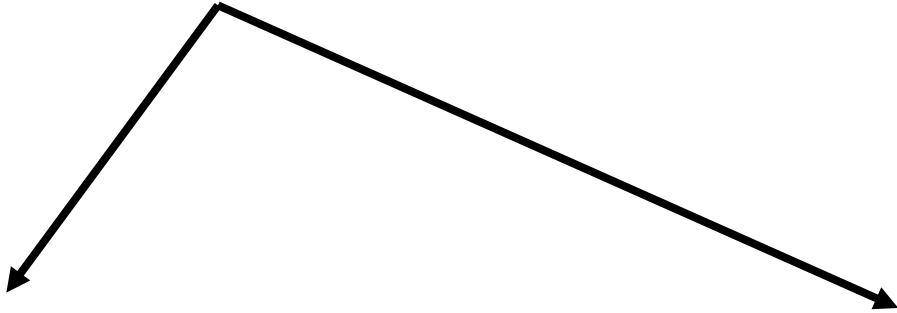
animal dry scales feathers five frog goldfish groups
guinea pig hair hard shells invertebrates jelly shells jellyfish
kingdoms leathery shells milk moist skin offspring
organisms parrot plant snails snake spiders starfish
vertebrate vertebrates wet scales worms



Animals

Vertebrates

Invertebrates



Mammals



Vertebrates

- Have body hair or fur
- Have mammary glands that produce milk
- Warm blooded

Fish

Vertebrates

- Live in water
- Breathe with gills
- Streamlined bodies
- Have cartilage or bony skeleton
- Cold blooded
- Mostly lay eggs



Reptiles



Vertebrates

- Have dry, scaly skins
- Egg laying
- Breathe with lungs
- Cold blooded

Amphibians

Vertebrates

- Moist skin
- Lay their eggs in water
- Larvae have gills and live in water
- Adults have lungs and live on land
- Cold blooded



Birds



Vertebrates

- Have feathers and wings
- Lay eggs with hard shells
- Breathe with lungs
- Warm blooded

- Complete worksheet (10mins)

All _____ are put into one of five _____. The _____ and _____ kingdoms are divided into _____.

The _____ kingdom is divided into _____ (which all have backbones) and _____ (animals without backbones).

The _____ group is divided into _____ more groups.

Mammals have _____, give birth to live _____ and produce _____.

Birds have _____ and lay eggs with _____.

Reptiles have _____ and lay eggs with _____.

Amphibians have _____ and lay eggs in water.

Fish have _____ and lay eggs in water.

Examples

Invertebrates include:

- _____
- _____
- _____
- _____
- _____

Vertebrates include:

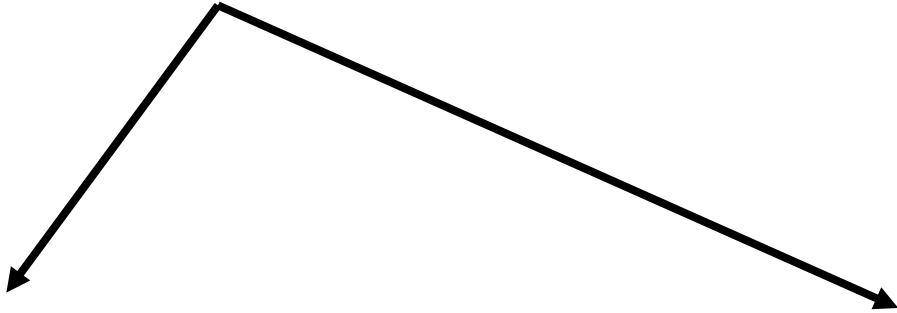
- _____ (a mammal)
- _____ (a bird)
- _____ (a reptile)
- _____ (an amphibian)
- _____ (a fish)

animal dry scales feathers five frog goldfish groups
guinea pig hair hard shells invertebrates jelly shells jellyfish
kingdoms leathery shells milk moist skin offspring
organisms parrot plant snails snake spiders starfish
vertebrate vertebrates wet scales worms

Animals

Vertebrates

Invertebrates

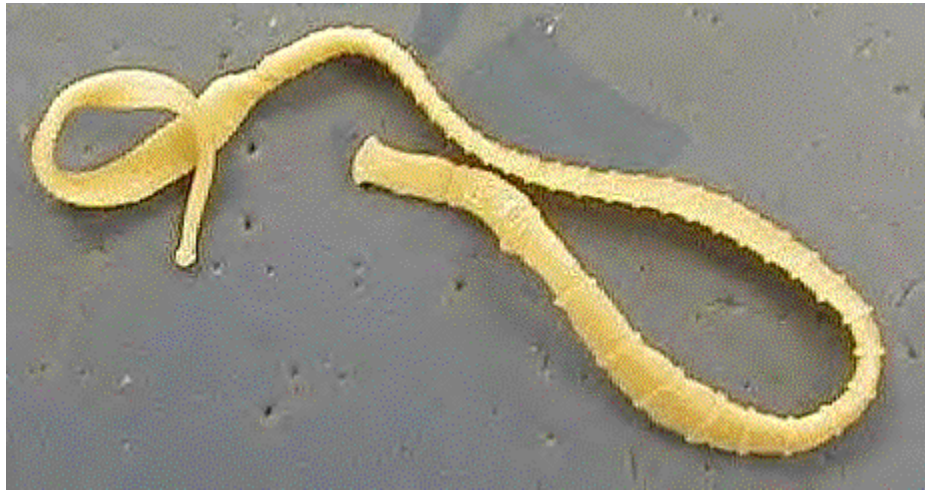




Invertebrates

Cnidarians

- Hollow bodied
- Mouth is the only body opening and is surrounded by tentacles
- Uses sting cells to paralyse prey



Invertebrates

Flatworms

- Flat thin bodies
- Digestive system has only one opening
- Animals are both male and females
- Mostly parasites



Invertebrates

True Worms

- Rounded bodied
- Bodies made of segments



Invertebrates

Molluscs

- Not segmented
- Body in three continuous parts with head, body and foot
- Have one or two shells



Invertebrates

Echinoderms

- Spiny skinned
- Body in five parts
- Central mouth with respiratory gills

Invertebrates

Arthropods

- Hard exo-skeleton on outside of body
- Has eyes and mouth
- Body divided into more than one segment

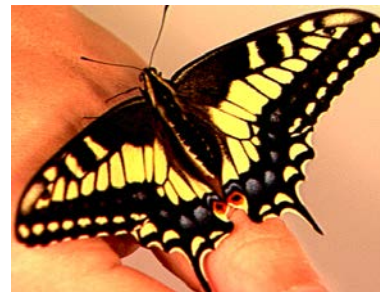
Crustaceans



Arachnids



Insects



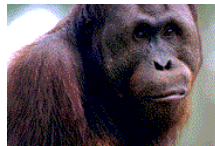
Centipedes & Millipedes



Animals

Vertebrates

Mammals



Fish



Reptiles



Amphibians



Birds



Invertebrates

Cnidarians



Flatworms



True worms



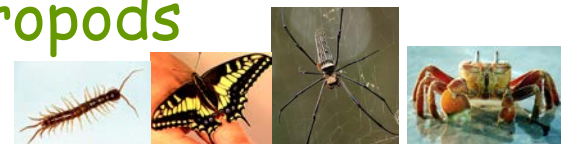
Molluscs



Echinoderms



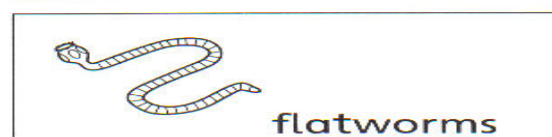
Arthropods



1 Tick the correct box. Animals that do not have a backbone are called:

vertebrates. invertebrates.

2 Draw lines to match the pictures with their descriptions.



crawl on a single
fleshy pad

have bodies divided
into five parts

have jointed legs, a hard
covering and their bodies
are divided into sections

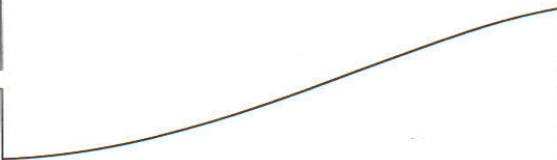
have round worm-like
bodies with segments

have long thin round
worm-like bodies with
no segments

have flat worm-like
bodies

have thin sack-like bodies
with tentacles

have bodies made of
loosely joined cells





The Animal Kingdom

ANIMALS WITHOUT BACKBONES (Invertebrates)

ANIMALS WITH BACKBONES (Vertebrates)

Mammal

Bird

Spider

Insect

Reptile

Crustacean

Amphibian

Snail

Mollusk

Clam

Fish

Lungs & Gills

Star Fish

Gills

(Porifera)

Sponge

ANIMALS WITHOUT BACKBONES (Invertebrates)

ANIMALS WITH BACKBONES (Vertebrates)

- Quiz –
- 1] Animals with a backbone are called _____
- 2] Animals that can live on land and in water _____
- 3] _____ have wings and can fly.
- 4] Butterfly is an example of an _____
- 5] _____ have shells
- 6] _____ is sorting organisms into groups.
- 7] Living things are called _____
- 8] A animal which can't control its internal body temperature is _____
- 9] _____ have body divided into five parts.
- 10] The basic unit of classification is _____.

