



# Living Things

# Living Things

- **Living Things** are things that are alive
- Living Things are divided into 2 main groups:
  1. Plants
  2. Animals

# Animals

- Animals are divided into 2 main groups:
  1. Invertebrates
  2. Vertebrates

# Invertebrates

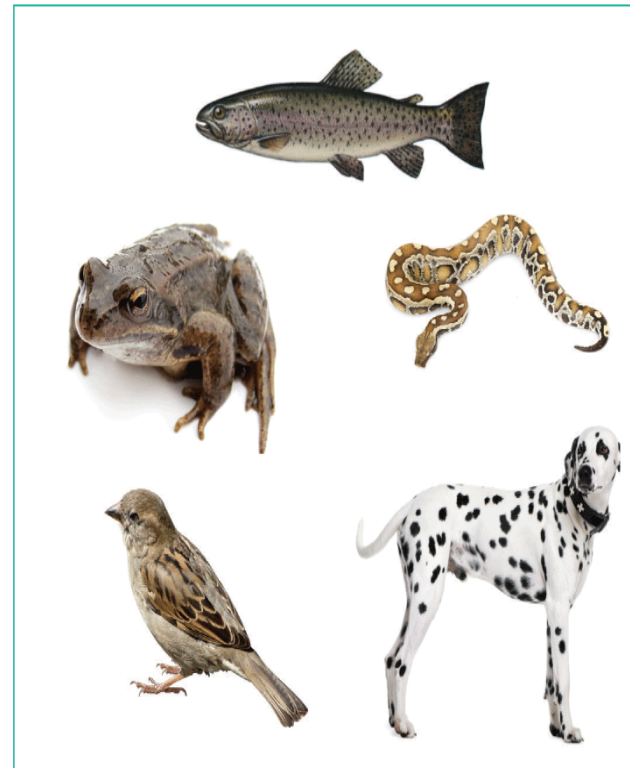
- **Invertebrates are** animals that do not have a backbone
- Most animals are Invertebrates
- **Examples:** jellyfish, worms, insects, slugs



▲ Fig 1.10 Invertebrates are animals that do not have a backbone

# Vertebrates

- **Vertebrates** are animals that do have a backbone
- **Examples:** fish, snakes, birds, dogs, humans



▲ Fig 1.11 Vertebrates are animals that have a backbone

# The Difference between Plants and Animals

<b>Animals</b>	<b>Plants</b>
Animals move from place to place	Plants don't
Animals don't make their own food	Plants make their own food
Animals don't have cell walls	Plants have cell walls

# Identification Keys

- **Identification Keys** are a list of various questions. You answer each question in order until you get to a name at the bottom
- You use the key to find the name of an animal or plant you don't know







*Animal 1*



*Animal 2*



*Animal 3*



*Animal 4*

<b>1</b>	If the animal has hair or feathers...	<b>go to 2</b>
	If the animal has no hair or feathers...	<b>go to 3</b>
<b>2</b>	If there is hair or whiskers on the face or body...	<b>Mammal</b>
	If feathers cover the body...	<b>Bird</b>
<b>3</b>	If the body is covered in scales...	<b>go to 4</b>
	If the body has no scales and is wet and smooth...	<b>Amphibian</b>
<b>4</b>	If the animal has nostrils and lays eggs on land...	<b>Reptile</b>
	If the animal has gills and fins and lives in water...	<b>Fish</b>



*Animal 1*



*Animal 2*



*Animal 3*



*Animal 4*

<b>1</b>	Body not divided into sections	<b>go to 2</b>
	Body divided into sections	<b>go to 4</b>
<b>2</b>	Body looks like a worm, no shell	<b>Roundworm</b>
	Feelers on the head	<b>go to 3</b>
<b>3</b>	Shell present	<b>Snail</b>
	Shell absent	<b>Slug</b>
<b>4</b>	More than eight legs	<b>go to 5</b>
	Eight legs or fewer (including no legs)	<b>go to 7</b>
<b>5</b>	Over twenty sections	<b>go to 6</b>
	Twenty sections or fewer	<b>Woodlouse</b>
<b>6</b>	Two pairs of legs per section	<b>Millipede</b>
	One pair of legs per section	<b>Centipede</b>
<b>7</b>	No legs present	<b>Insect larva</b>
	Legs present	<b>go to 8</b>
<b>8</b>	Eight legs	<b>Spider</b>
	Six legs	<b>Insect</b>

# The Characteristics of Living Things

- **The Characteristics of Life** are 7 things that both plants and animals do everyday in order to stay alive

# The Characteristics of Living Things

1. **R**eadily
  2. **G**ood
  3. **R**ejects
  4. **M**ake
  5. **R**eadily
  6. **E**xcellent
  7. **N**erds
- R**espiration
  - G**rowth
  - R**eproduction
  - M**ovement
  - R**esponse
  - E**xcretion
  - N**utrition



- **Respiration**

The release of energy from food using oxygen

- **Growth**

Getting bigger e.g.

Growing from Young → Adult

- **Reproduction**

To produce new individuals

## ○ **Movement**

Every living thing must move

Plants move much slower than animals

## ○ **Response**

Living things respond to changes in their environment

E.g. Animals respond quickly by running out of the way

E.g. Plants respond slowly by growing out of the shade



- **Excretion**

Excretion is the removal of waste from the body

- **Nutrition**

The way plants and animals feed

# Tissues

- **Tissues** are groups of similar cells working together
- **Example:** Muscle Tissue



# Organs

- **Organs are** 2 or more tissues working together
- **Example:** The Heart

# Systems

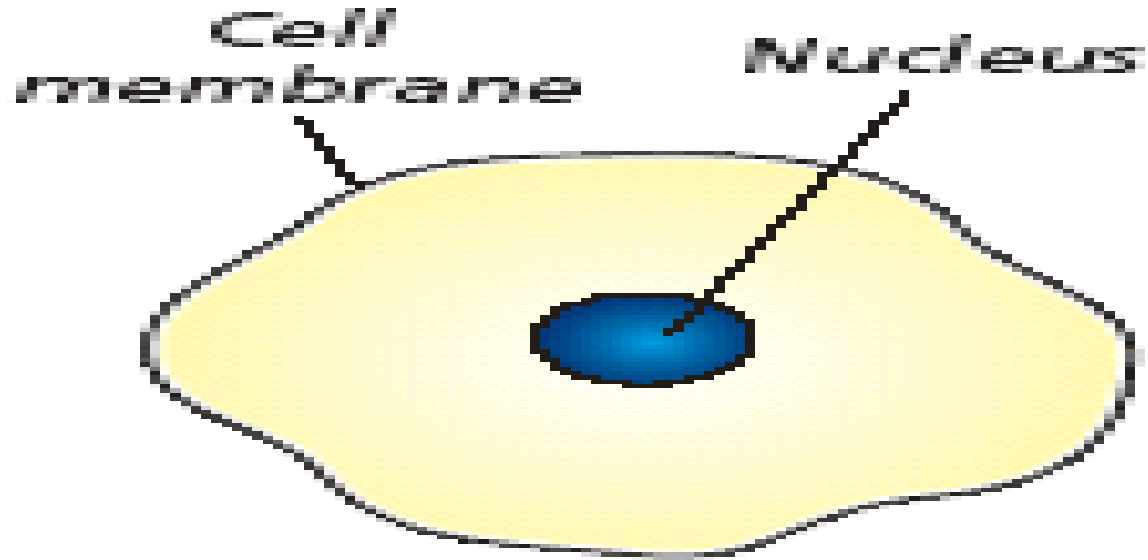
- **Systems are** a number of organs working together
- **Example:** The Digestive System

# Organisms

- **Organisms are** living things
- **Example:** A Human

**Cells** → **Tissues** → **Organs** → **Systems** →  
**Organisms**

# Animal Cell



**Animal cell**

# Plant Cell

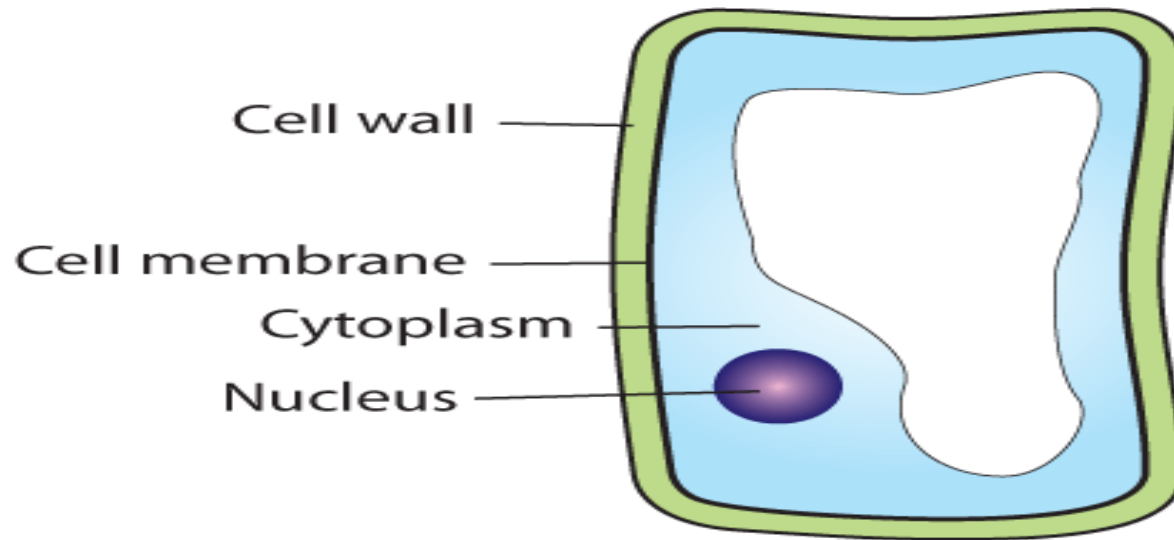


Fig 2.3 A typical plant cell