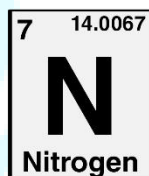
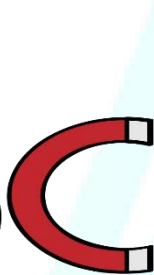
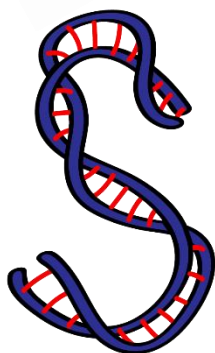




ASPIRE
INTERNATIONAL SCHOOL



Science Department

2023/2024

Year 2

Summary notes

Term 2

Name:

Class:

Term 2 Topics that have been covered

<u>Unit 4</u> Humans and Animals Grow	<u>Unit 5</u> Light
4.1 Comparing Animals 4.2 Growing 4.3 Inheriting characteristics 4.4 Keeping Healthy 4.5 Teeth	5.1 Light sources 5.2 Darkness 5.3 Shadows on the move

Objectives of unit 4

- Find out how animals look similar and different.
 - Learn how humans and other animals change as they grow.
 - Find out why animals look similar to their parents.
 - Put children into groups using characteristics.
 - Find out how to keep healthy.
 - Find out why humans get ill and what it does to our bodies.
 - Sort food into groups using the food pyramid.
- ✚ We compare animals (including humans) depending how they look like.
- ✚ The giraffe looks **similar** to the zebra because they **both** have **four legs** and a **tail**.
- ✚ The giraffe looks **different** from the zebra because it has a **longer neck**.
- ✚ A bird looks **similar** to a human because they **both** have two legs.
- ✚ **Animals are classified into 5 groups.**

1. Mammals:

Mammals are warm-blooded.
Mammals' young drink their mother's milk.
Mammals have hair or fur. They breathe with **lungs**.
Mammals give birth to their offspring (young ones).
Examples: Humans, whales and dolphins.



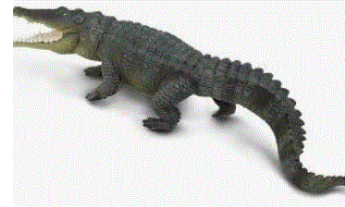
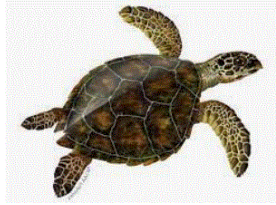
2. Amphibians:

Amphibians are cold-blooded.
Amphibians live on land and in the water.
Amphibians lay eggs. **Amphibians** have moist skin.
Amphibians have webbed feet.
Example: Frogs.



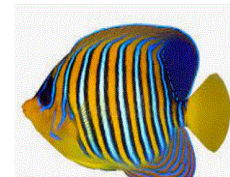
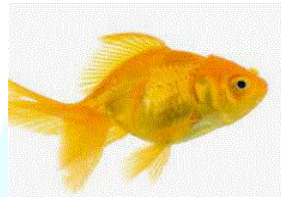
3. Reptiles:

Reptiles are cold-blooded.
Reptiles have scales not fur.
Reptiles have ear holes, not ears.
Reptiles have dry skin.
Examples: Snake, turtle



4. Fish :

Fish are cold-blooded.
Fish live in water.
Fish have fins not Legs.
Fish have **gills** instead of lungs, to breathe under water.
Fish lay their eggs in water.
Examples: Shark, clown fish



5. Birds:

Birds are warm-blooded.
Birds have a beak. They breathe through **lungs**.
Birds have wings. **Birds** have feathers.
Birds have two legs.
Examples: Parrot, Flamingo.



+ What do animals eat? (Animals eating habits)

Animals need to eat to stay alive.

Different animals eat different types of food. They are classified into 3 groups:

1. Carnivores:

Those are animals that eat only other animals, fish or insects.
Examples: Lions, owls, cats.

2. Herbivores:

Those are animals that totally depend on plants for eating.
These animals can eat leaves, grass, fruits, vegetables and nuts.
Examples: Giraffes, rabbits, cows.

3. Omnivores:

Those are kinds of animals that eat both meat and plants.

Humans are Omnivores.

Examples: Humans, pigs, hedgehogs

Also Living things are classified into:

1. Vertebrates:

Those are living things with **backbones**.

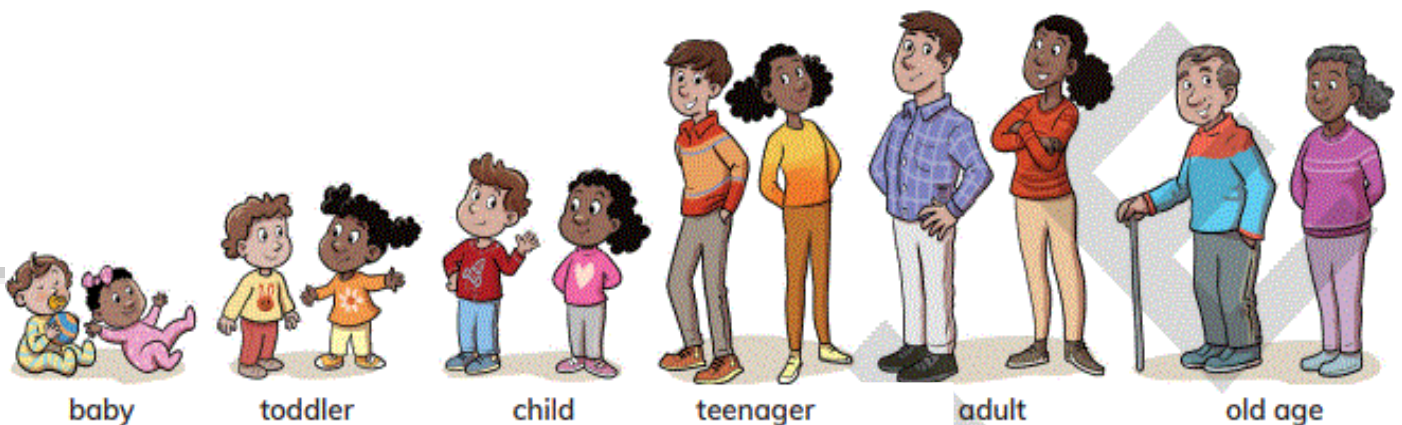
Example: Humans, sharks, zebras.

2. Invertebrates:

Those are living things **with No backbones**.

Examples: Jellyfish, ants, butterflies.

✚ Humans and other animals change as they grow.



✚ An **offspring** is the **young** of an animal or human.

✚ When they are fully grown, we call the animals **adults**. The **young** of many animals look **similar** to the **adults**. But the **young** of some animals look **different** from the **adults**.

✚ A **young** bear is called a **cub**. It looks very similar to **adult** bear.

- ✚ A **young** penguin is called a **chick**. It looks very different from adult penguin.
- ✚ A **young** elephant is called a **calf**. It looks very similar to **adult** elephant.
- ✚ **Animals** look **similar** to their **parents** but they do not look the same. We say they are not identical. This is because an animal inherits some characteristics from one parent and some characteristics from the other parent.
- ✚ Every tiger has a **different pattern of stripes**. A tiger cub's **stripes** are not the same as its parents' **stripes**, but they are similar.
- ✚ **Inheriting characteristics** is to take from the parent's features.
- ✚ You've probably noticed that you might look like your parents. This is because you **inherit** characteristics (features) from them, like your eye colour, skin colour and height.
- ✚ The only thing humans can't **inherit** from their parents is their **fingerprints**.
- ✚ **Twins** can be **identical** but have **different fingerprints**.

Patterns of fingerprints



Loop

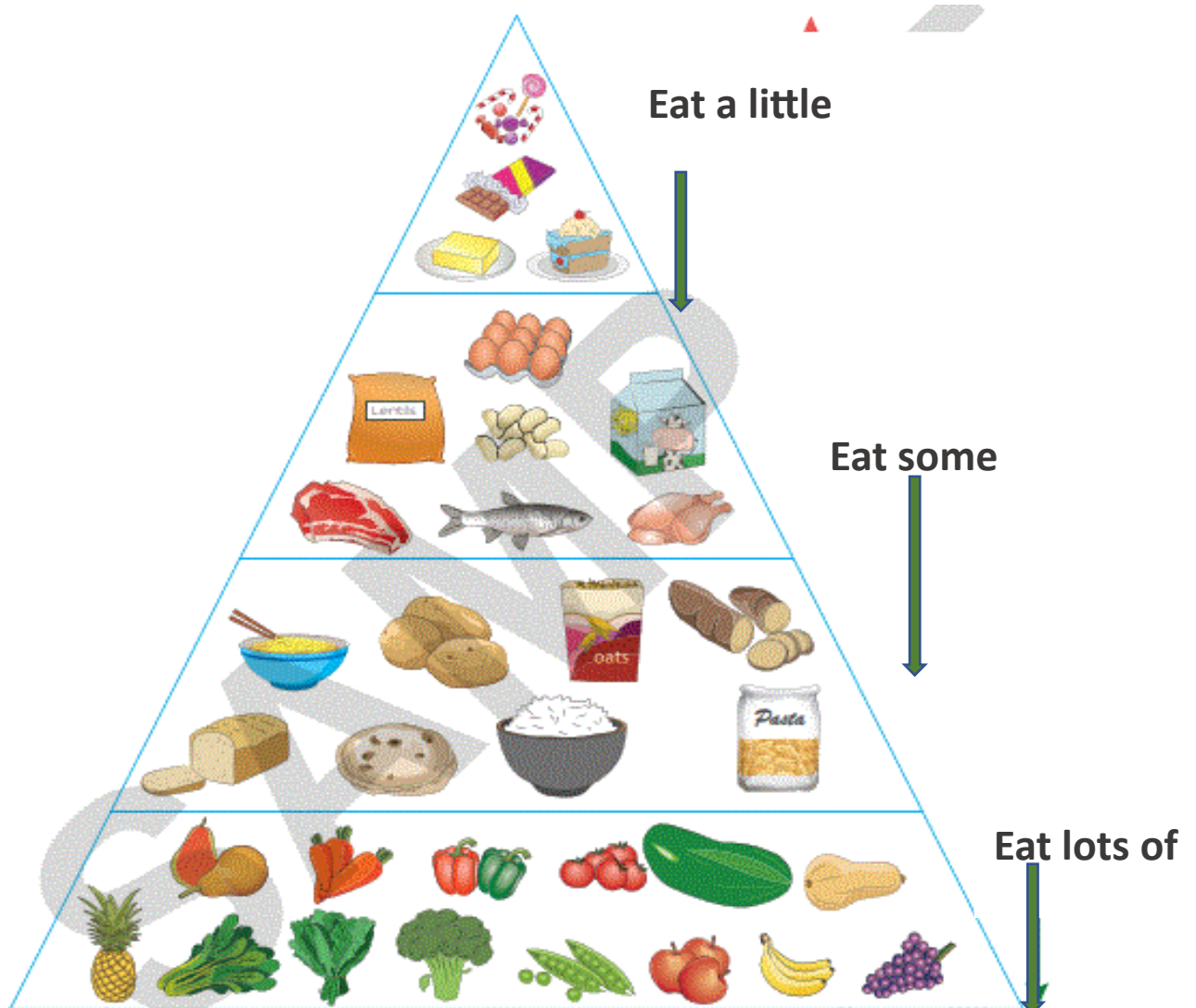


Whorl



Arch

Food triangle



Healthy eating

Food that is good for us is called **healthy food**. Humans need to eat lots of different foods to stay **healthy**. The food we eat is called our **diet**.

- ✚ This food triangle shows **how much** of each type of food we should eat.
- ✚ If we do not have a healthy **diet** our bodies might not get what they need.

✚ This is one way we can become **ill**.

✚ We get sick or ill sometimes because of **germs**.

✚ **Germs** are living things that are too small to see.

✚ Some **germs** can make us **ill**. This happens when the germs get inside us and our bodies cannot kill them. This is another way we can become **ill**.

We can stop germs by:

✚ Wash our hands before and after eating.

✚ Wash your hands after going to the toilet.

✚ Do not eat dirty food or drink dirty water.

✚ Exercise or work out.

✚ Taking showers.

✚ Eating healthy food and drink lots of water.

- Sometimes **germs** can make us **cough** or **sneeze**. Cover your mouth when you cough or sneeze. This can stop germs getting to other people. Healthy people become **ill** less often. Their bodies are better at killing **germs**.

- **Exercising** is good for our **body and heart**.

- **Exercise** is when we use our **muscles** to move our bodies.

- Your **heart** is a **muscle**.

- **Exercise** is good for your heart. Exercising makes us **sweat**.

- We need to wash after exercising to keep clean.

- Keeping clean is another way to keep your body healthy.



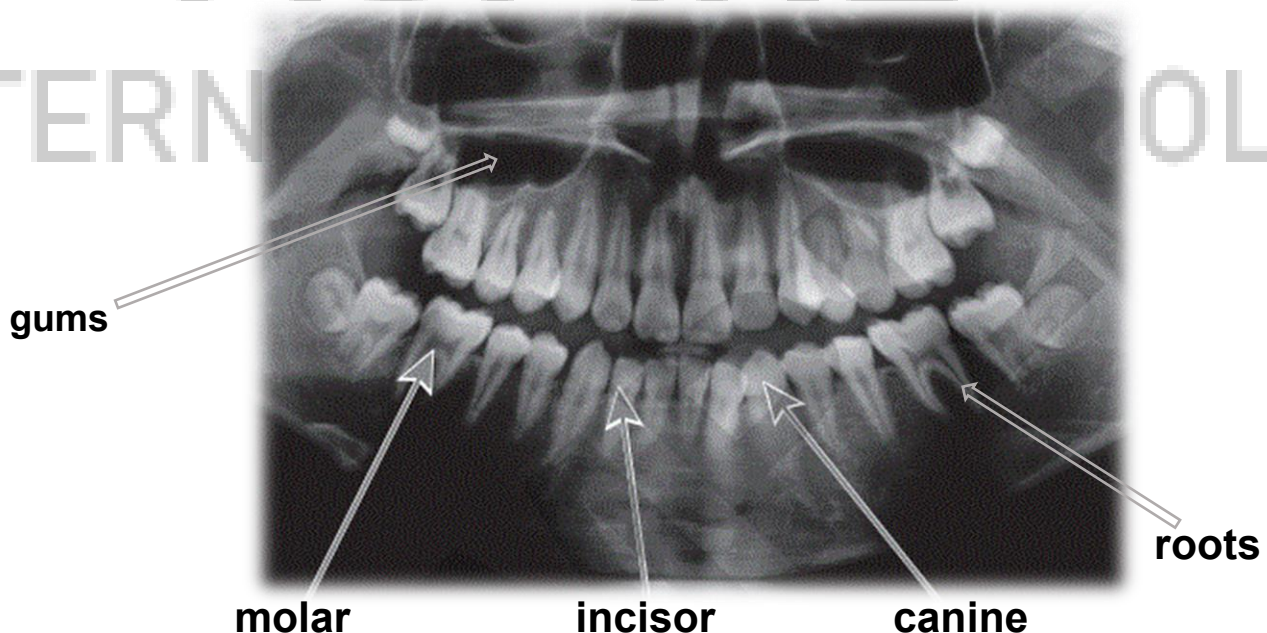
Looking after teeth

- We use our **teeth** to eat and we also use **teeth** to talk.
- You can keep your teeth healthy by eating a **healthy** diet.
- **Calcium** is a material that helps to make **teeth** strong.
- **Milk** and other **dairy** foods, some beans and some fish have **calcium** in them.
- Food with lots of sugar is **bad** for teeth.
- Brush your teeth twice every day for two minutes to keep them clean.
- Use toothpaste with **fluoride** in it. **Fluoride** helps to make your teeth strong.
- Do not use too much toothpaste.
- Go to the dentist **twice** a year. The dentist will check your teeth are healthy and can help you look after them.

Types of teeth

Humans have **three** main types of **teeth**:

Incisors, **canines** and **molars**. Teeth have **roots** to fix them to your **gums**.





Incisor

Used for For
biting food.



Canine

Used for
gripping and
tearing food.



Molar

Used for
chewing and
grinding
food.

Objectives of Unit 5

- Know that there are many light sources, including the Sun.
- Identify how we use electricity and describe how to be safe with it.
- Know that darkness is the absence of light.
- Describe the apparent movement of the Sun during the day.

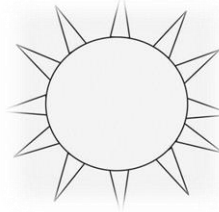
✚ A **light source** makes its **own light**.



✚ At night, **street lights** give us light. In the day time, we get most of our light from the Sun.

✚ The **sun** is the **main** source of light.

✚ Never look at the **Sun** as it will hurt your **eyes**.



✚ **Light sources** can be flames, electric lights, TVs and computer screens.

✚ The **Moon** is **not** a light source, it **reflects** light from the Sun.



✚ The light from a light source **shines** onto things which we can then see.

✚ Some materials **reflect** light, they do not make light. They **reflect** light from a light source.

✚ **Glass** and **mirrors** are reflecting objects, they **reflect** light.



✚ We see when light falls on objects around us and reflects to our **eyes**.



✚ If there is **no light** from a light source, it will be too **dark** to see.

✚ When there's little bit of light or no light, it is **dark**.

✚ We need some light to see things. At night we don't have sunlight, so we use light sources to make light.

✚ **Bright** colors reflect light more than **dark** colors.

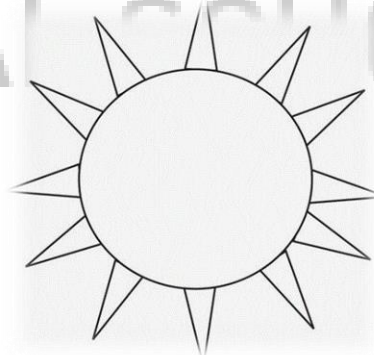
✚ Our nearest **star** is the **Sun**.

✚ The **Sun** is very **bright** and **hot**.

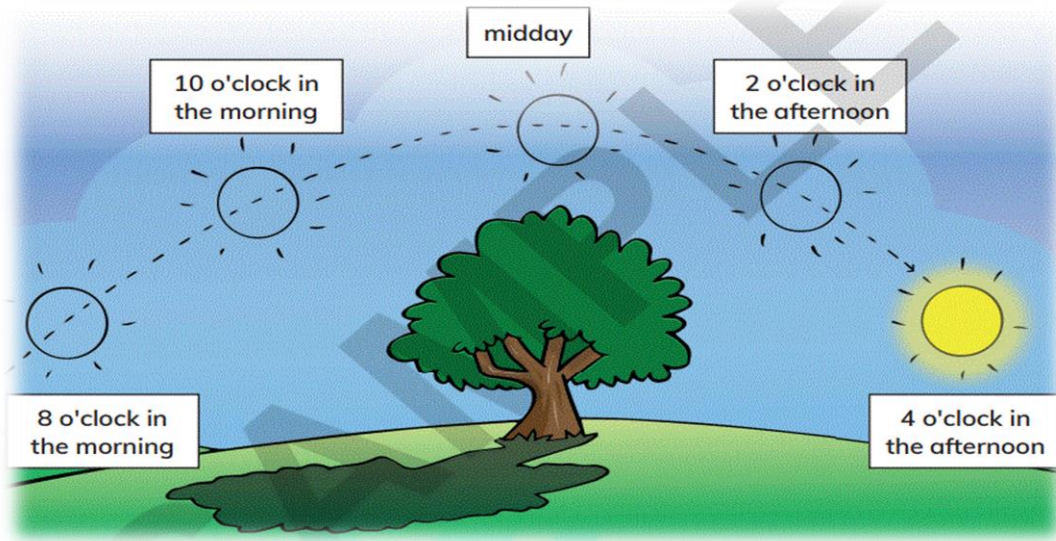
✚ During **day time**, the **Sun** gives us **light**.

✚ The **Sun** is a very big **light source**.

✚ The **Sun** looks as though it moves across the sky and changes its position.



- ✚ The **Sun** doesn't move, the **earth** spins around the sun so it appears to move.



- ✚ Look at the diagram of the tree.
- ✚ The position of the Sun in the diagram shows different times of the day.
- ✚ **Shadows** are formed depending on the **direction** of the **light source**
- ✚ This is a sundial. The shadow on the sundial moves.
- ✚ The shadow tells the time.

