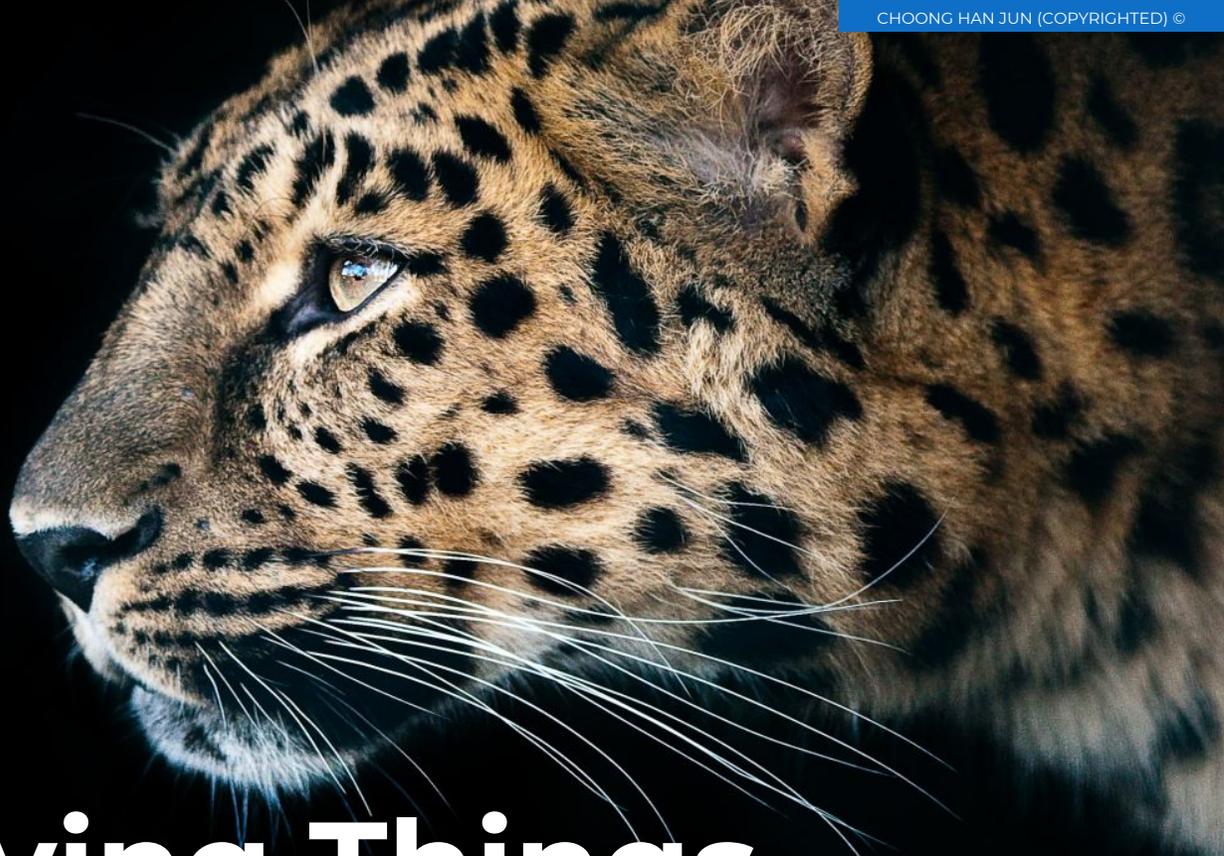


CHOONG HAN JUN (COPYRIGHTED) ©



**DIVERSITY:**  
**Diversity of Living Things**



# CHAPTER ANALYSIS



## 4 KEY CONCEPTS

- Show an awareness of biodiversity as the variety of life on earth
- Show an awareness that bacteria can have beneficial or harmful effects
- Recognise importance of biodiversity to the stability of natural systems, and its benefits to humans
- Discuss the reasons for the depletion or extinction of some plants or animals



## 1 ADVANCED CONCEPTS

- Construct and use simplified dichotomous keys in identifying and classifying living things

KEY CONCEPT

# CLASSIFYING LIVING THINGS



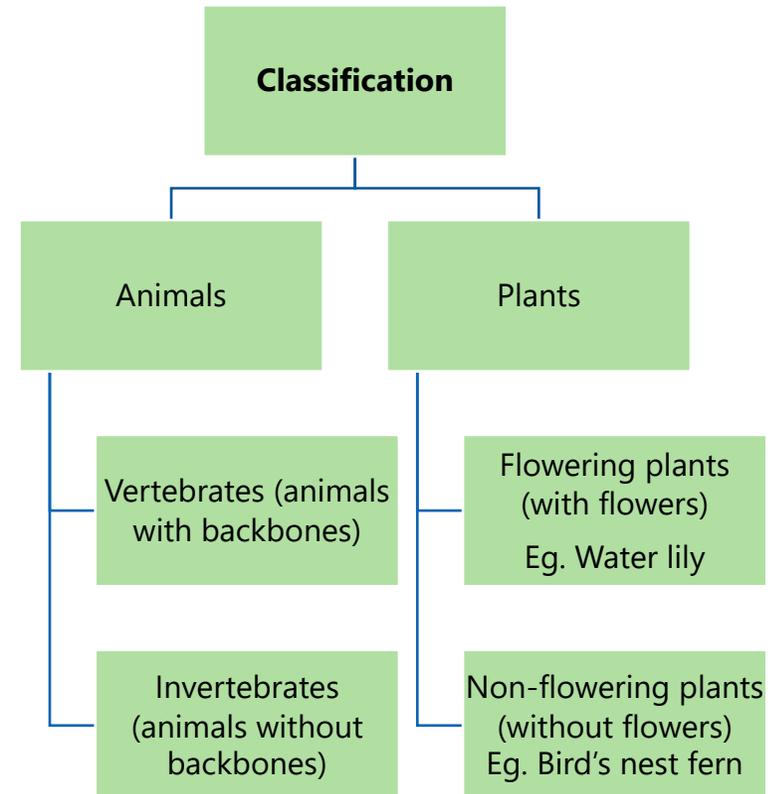


# CLASSIFYING LIVING THINGS

## CLASSIFYING LIVING THINGS

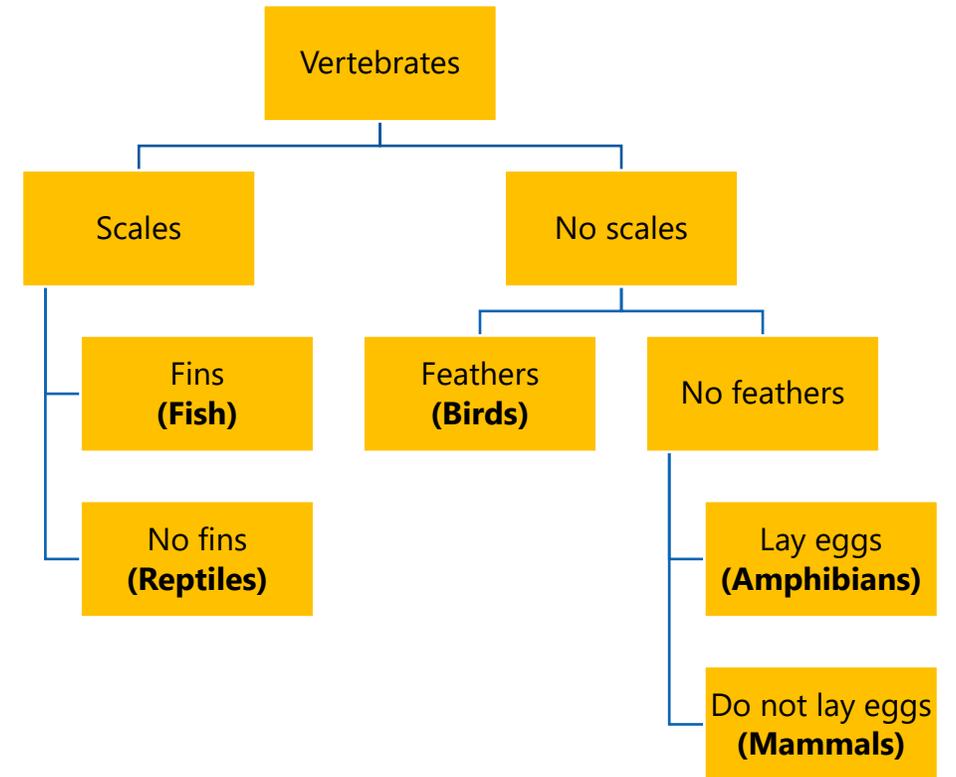
Classification helps us to:

- Group living things according to similar features
- See similarities and differences between living things
- Identifying living things



# CLASSIFYING LIVING THINGS

## CLASSIFYING VERTEBRATES



# DICHOTOMOUS KEY

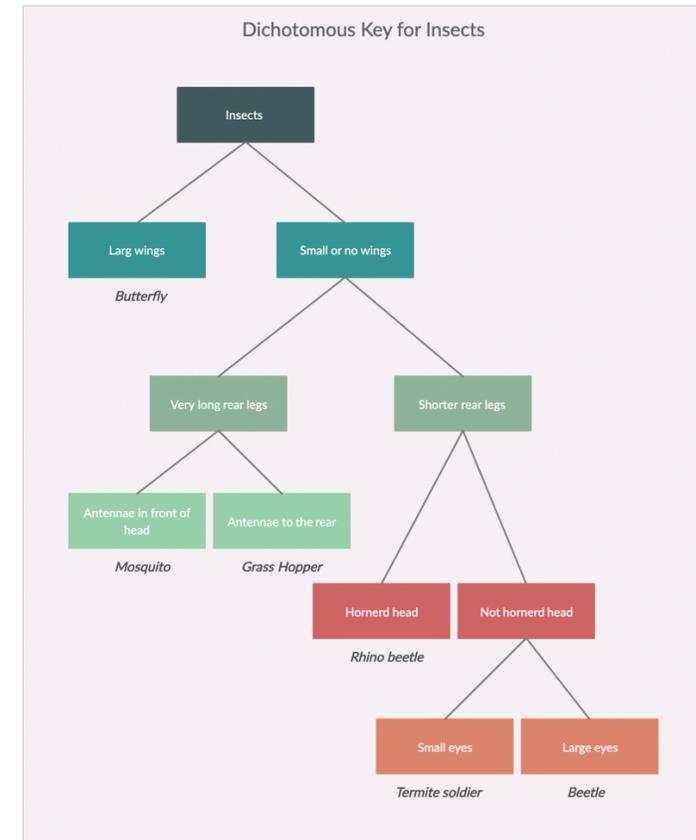
## DICHOTOMOUS KEY

A dichotomous key is a method used to classify objects into specific categories based on their characteristics.

Plants and animals are identified by dividing them into **two** smaller groups at each group.

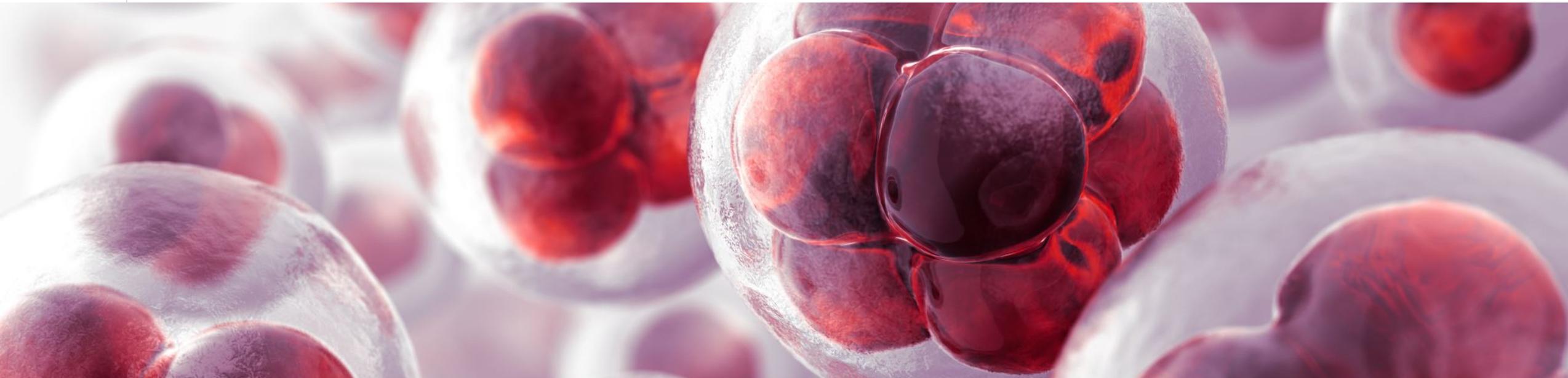
- At each step, you just have to answer 'yes' or 'no' to the question.

### Example



KEY CONCEPT

# BACTERIA



## **BACTERIA**

### **How is bacteria helpful?**

#### **Health**

- Many bacteria are found in our digestive system, which help in the digestion of many kinds of food
- Some bacteria can help prevent disease-causing bacteria from attaching themselves to our intestines
- Some bacteria are responsible for production of vitamins in the body

#### **Decomposition**

- Bacteria in the soil help to break down dead organisms into smaller substances that plants absorb and use for growth

#### **Food production**

- Bacteria that cause milk to become sour are used to produce cheese and yoghurt

### **How is bacteria harmful?**

- Some bacteria cause diseases including cholera, tuberculosis, and sexually-transmitted infections (STIs)
- Bacteria can cause food to decay and go 'bad'
- Some bacteria get onto food where they release harmful substances that cause food poisoning



# **BACTERIA**

KEY CONCEPT

# IMPORTANCE OF BIODIVERSITY

Biodiversity is important as it:

- Benefits our lives
- Helps to keep the natural environment stable





# IMPORTANCE OF BIODIVERSITY

## **HOW DOES BIODIVERSITY BENEFIT US?**

The earth's plants and animals provide us with things we cannot live without, such as food, medicine, and raw materials.

- Sheep provide us with wool to make woolen clothes
- Cows provide us with leather to make belts, bags, and milk and beef for food
- Trees provide wood to make furniture and build houses

## **HOW DOES BIODIVERSITY KEEP THE NATURAL ENVIRONMENT STABLE?**

A **stable environment** is one where the plants and animals in it change very little, or one that recovers quickly following a change (eg. From a fire or flood)

### **Resistance to disease**

In a diverse environment, if one species is affected in some way, others not affected can take its place.

- Farms with just one kind of crop (eg. Wheat) can be completely destroyed by a disease or a pest

### **Removing dead matter**

Bacteria in soil attack dead matter and break them down into simpler substances (decomposition). These substances provide nutrients for plants.

### **Fishing**

The fishing waters of Alaska contain a variety of species of salmon. This diversity ensures that the fishing waters remain stable and healthy.

### **Stability of the atmosphere**

Photosynthesis: green plants absorb carbon dioxide and give out oxygen that animals need for breathing  
With many trees and forests, the supply of both gases in the atmosphere remain stable.



# LOSS OF BIODIVERSITY

## REASONS FOR BECOMING ENDANGERED

### **Habitat loss**

A habitat is the natural home of an organism.  
Common cause of habitat loss: deforestation

### **Invasive species**

An invasive species refers to organisms that do not normally live alongside native species

### **Diseases**

Diseases can kill plants and animals, causing them to become endangered

### **Hunting**

People hunt and kill animals for food and their body parts. The over-hunting and over-fishing of animals can lead them to become endangered or extinct.



OVERMUGGED

By Tutors, For Students

For more notes & learning materials, visit:  
[www.overmugged.com](http://www.overmugged.com)

## Sec 1 EOY Exam crash course program

**Professionally designed crash course** to help you get a **condensed revision** before your EOY exams!

The **3 hour session** focuses on going through **key concepts** and **identifying commonly tested questions!**

Our **specialist tutors** will also impart valuable **exam pointers and tips** to help you maximise your preparation and ace your upcoming national exam!

The crash courses will begin in **June 2021** and last till **Oct 2021**.

**Pre-register now on our [website](http://www.overmugged.com) and secure your slots!**



IG handle:  
[@overmugged](https://www.instagram.com/overmugged)



Join our telegram  
 channel:  
[@overmugged](https://t.me/overmugged)



Need help?

**Choong Han Jun**

**97839558**  
**(Whatsapp)**

**@hanjunn**  
**(telegram username)**

