Aim: How do organisms acquire nutrition?

producers (autotrophs)

make their own food



a. photosynthesis

 $CO_2 + H_2O + energy \rightarrow O_2 + C_6H_{12}O_6$ plants and some algae

## b. chemosynthesis

bacteria

- use sulfur (ex. H<sub>2</sub>S gas)and carbon to synthesize organic compounds such as sugar for nutrition
- base of food web in deep sea environments (ex. near hydrothermal vents)

2. consumers (heterotrophs) - acquire energy by feeding on other things



a. **herbivores** – eat plants (cows, deer, rabbits, elephants, horses)



b. **carnivores** – eat meat/animals (lions, tigers, sharks)



c. **omnivores** – eat plants and meat (humans, foxes, bears, rats, birds, raccoons)

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d. **decomposers** – break down organic material

saprophytes – secrete enzymes and absorb nutrition (bacteria and fungi)

detritivores / detritus feeders – help begin the decomposition process by physically breaking down larger particles (earthworms, crabs, ants, termites)