1. Habitat
   a. A natural living place where plants and animals live.
   b. Provides the organism with **food, protection** and **space for breeding**.

2. **Invertebrates** (without backbones)

   - Jointed leg
     - 3 pairs
     - eg: ant, bee, beetle, grasshopper, cockroach, dragonfly
     - 4 pairs
     - eg: spider, scorpion
     - A lot
     - eg: crab, prawn, centipede, milipede

   - Non-jointed leg
     - Worm-like
       - Segmented
         - eg: Earthworm.
     - Non-segmented
       - eg: Flatworm, Roundworm.
     - Not worm-like
       - Shell
         - eg: Snail, Cockle
       - Shell-less
         - eg: Jelly fish, Starfish, sponges

3. **Plants**

   - Non-flowering plants (reproduce by **spores**)
     - With Chlorophyll (can make food by photosynthesis process)
       - a. Algae
         - Without roots, stem, or leaves
         - Live in water.
       - b. Mosses
         - Simple plants with stems and small leaves but without roots
         - Live on land in moist and shady places
         - Reproduces by spores growing in capsules at the end of stalks.
       - c. Ferns
         - Have stems, leaves and roots
         - Live on land in moist and shady places
         - Reproduces by spores growing in capsules attached on the back of the leaves.
     - Without Chlorophyll (can’t make food by photosynthesis process)
       - d. Conifer
         - Have true roots, stems and needles like leaves
         - Reproduce by spores produced in the cones
       - e. Fungi
         - Without leaves, stem or roots.

   - Flowering (reproduce by **seeds**)
     - Pine tree
     - Casuarina tree
     - Spruce tree
     - Fir tree
     - Sporangium
     - Mucor / Bread mould
     - Conifer
     - Mushroom
     - Lichen
4. Cellular

- Unicellular
  - Animals
    - Paramecium
    - Amoeba
      - without chlorophyll
      - Can’t make food by photosynthesis
  - Plants
    - Euglena
    - Chlamydomonas
      - Contain chlorophyll
      - Can make food by photosynthesis.

- Multicellular
  - With chlorophyll (can make food by photosynthesis)
    - Spirogyra
    - Hydra
    - Mucour / fungi
  - Without chlorophyll (can’t make food by photosynthesis)
    - Mushroom / fungi

5. a. Cold-blooded
(fish, reptile & amphibian)
- body temperature changes according to surrounding temperature.

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<thead>
<tr>
<th>body temperature</th>
<th>surrounding temperature</th>
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<tbody>
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<td>$\theta_{c}$</td>
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b. Warm blooded / Live on land
(mammal & bird)
- fixed body temperature regardless any changes of surrounding temperature.

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