LIVING THINGS AND THE ENVIRONMENT

HABITATS

- living things = **ORGANISMS**
- organisms need food, water, shelter, etc. to live, grow, and reproduce
- **HABITATS** provide these needs
- many different habitats (can be small; can be large)
- more than one habitat in area

BIOTIC FACTORS

- living parts of an organism's habitat are **BIOTIC FACTORS**
- biotic factors include foods, predators, competition of other organisms, disease, etc.

ABIOTIC FACTORS

- non-living parts of an organism's habitat are **ABIOTIC FACTORS**

1. WATER

- water is used by all living things in cellular processes

2. SUNLIGHT

- sunlight is used in **PHOTOSYNTHESIS**
- energy from the sun is passed through the food chain to other organisms

3. OXYGEN

- oxygen is used for energy release

4. TEMPERATURE

- Goldilocks knew her stuff... not too hot; not too cold
- temperature determines WHO can live in a habitat

5. SOIL

- soil is a mixture of rock fragments, nutrients, air, water, and decaying organisms
- soil influences types of plants that grow in a habitat

LEVELS OF ORGANIZATION

1. POPULATIONS

- number of all the members of one species in a particular area makes a **POPULATION**
- **SPECIES** is a group of organisms that is physically similar and can mate and reproduce offspring that can also mate and reproduce

2. COMMUNITIES

- all the different populations that live together in an area makes a **COMMUNITY**
- organisms must interact closely to be considered a community (predator/prey, food chains/webs, etc.)

3. ECOSYSTEMS

- a community of organisms along with nonliving surroundings makes an **ECOSYSTEM**
- both biotic and abiotic factors are part of an ecosystem
- The study of HOW living things interact with each other and their surroundings is called **ECOLOGY**

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