

# GRADE 6 SCIENCE: LIVING THINGS

## WHAT AM I?

### OUTCOME

- DL6.1 - Recognize, describe, and appreciate the diversity of living things in local and other ecosystems, and explore related careers.
- DL6.2 - Examine how humans organize understanding of the diversity of living things.
- DL6.3 - Analyze the characteristics and behaviours of vertebrates (i.e., mammals, birds, reptiles, amphibians, and fish) and invertebrates.

### BACKGROUND KNOWLEDGE

- There are different ways of classifying animals. This activity focuses on the Linnean system- Kingdom, Phylum, Class, Order, Family, Genus, Species.
- There are five kingdoms of life: Monera (Ex- Bacteria), Protista (Ex- Protozoa), Fungi, Plantae, Animalia.
- The animal kingdom is divided into two big groups- vertebrates & invertebrates. 90% of animals are invertebrates!
- There are five classes of vertebrates- fish, birds, amphibians, reptiles, and mammals.
- Vertebrates can be distinguished by their skin covering: fish- scales & fins, birds- feathers, amphibians- moist & smooth, reptiles- dry scales, & mammals- fur.
- There are seven main groupings of invertebrates: Porifera (sponges), Cnidarians (jellyfish), Echinodermata (sea urchins), Annelida (segmented worms), Platyhelminthes (flat worms), Mollusca (clams, squids), Arthropoda (insects, arachnids, crustaceans).
- Arthropods have segmented bodies with hard exoskeletons- main groups include: insects (six legs), arachnids (8 legs), Crustaceans (apx 10 legs), & Myriapods (many legs).

## ACTIVITY: LIVING THINGS

1. Have the students explore a designated green space, writing down all the living things they can find.
2. Gather the students, get them to share what they found.
3. Create two big classification posters. One with the five kingdoms and the other with the Animal classification tree.
4. Starting with the Kingdoms ask the students to classify the organisms they found. Ex. Grass- Plant Kingdom.
5. Then move on to the Animal classification tree and further organize the species found. Ex. Ladybug- Insect.
6. Discuss the common characteristics between species in the same groups.
7. Play "What am I?" (20 questions). Assign a student volunteer a living thing. Ex- Jackrabbit. Have the rest of the class ask science questions to determine what they are. Example- do you have a backbone, do you have fur, etc.

### TOP TIPS

1. Students might need help answering science questions.
2. Bring a phone to google if not confident.
3. Pre-write the poster groupings to keep kids' attention.

### MATERIALS

- Poster paper (x2)
- Masking tape or sticky tack.
- Black thick tipped marker.
- Notebooks or clipboards.
- Writing implements.

### HEALTH/SAFETY

- Establish boundaries for exploration & point out hazards.

### ESSENTIAL QUESTIONS

1. How can living things be grouped?
2. What diversity exists in our communities?

### HOME CONNECTION

- See if your family can figure out the classification of your pet or favourite animal!

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## EXTENSIONS

1. **MATH (P6.1)**- Have the students create a bar graph of the living things they found.
2. **ELA (CC6.4)**- Have the students classify one local animal & make a poster display.
3. **ART (CP6.12)**- Have the students collage their own classification tree using old magazines.

## DID YOU KNOW?

Meewasin often researches the diversity of life in different natural spaces with Citizen Science projects called Eco-Scavenger Hunts.

## TAKING IT FURTHER

1. **EXPERTS**- Invite a biologist or Meewasin interpreter to come into the class to further discuss classification.
  - Invite an elder or knowledge keeper to discuss Indigenous classification systems.
2. **FIELD TRIPS** - Do the same activity in a natural space to see if the kids come up with greater diversity.
  - Visit the Saskatoon Zoo to participate in their “Classification at the Zoo” program.

## RESOURCES

1. Video on classifying the diversity of animals.
2. Webpage- Classification info & graphics..
3. Graphic of vertebrate characteristics.
4. Webpage- Invertebrate info & graphics.