

**ecoMentors Lesson Plan Template: Helping kids explore the planet! www.ecomentors.ca**

**Title: Growth & Changes in Animals**

**Grade Level(s): 2**

**Time/Date:**

**School:**

**Teacher:**

**Directions to school, class:**

**Contact Info:**

**Ontario Curriculum Connection:** Science and Technology, Life Systems – Growth and Changes in Animals

Vocabulary: Words & Concepts your class may be learning, look these up yourself too!

**Camouflage** – to blend with the environment

**Metamorphosis** – to change shape

**Adaptation** – change form or behavior to survive in an environment

Materials and Equipment: List these before and while you plan and revise so you're prepared.

Worksheet senses (printed out (preferably on recycled paper) for the students)

Pictures of birds and camouflaged animals (optional, you can find these in some magazines at home)

What is your class accomplishing?: Learning & Activity Goals, Objectives

- **Identify major physical characteristics of different types of animals**
- **Compare ways in which animals eat their food, move and use their environment**
- **Describe changes in the appearance and activity of an animals as it goes through its life cycle**
- **Compare life cycles of animals**
- **Describe ways in which animals respond and adapt to their environment**
- **Describe features of the environment that support animals**
- **Describe ways in which humans can help or harm animals**

**PROCEDURE**

The Spark: Introductions, Demonstrations, Show and Tell, Topic Intro (Break the ice!) ~5-10min

Introduce yourself. Ask the students to introduce themselves and name their favorite animal.

Pick some interesting animals that students came up with and ask the students:

*What is so special about this animal? Where does the animal live and what does it need/do to live there?*

Brainstorming, Getting ideas, Connecting ideas (assess their knowledge!) ~10-20min

**Adaptation**

Ask the students to name some birds that eat:

Meat (vulture, eagle, falcon, ..), plants (ducks, geese), insects (woodpecker, thrush), fish (heron, kingfisher), nectar (hummingbird) nuts & seeds (finch). If you want to make this even more fun; bring pictures of different birds with you! Perhaps a cool bird book?

Draw some examples of bird heads (silhouettes are ok, focus on the beaks!) on the blackboard. *What do you notice about these different bird heads? What is different and why?* Discuss why these beaks are different > different food. Review some beak shapes by 'googling' "birds & beaks".

*Does anyone know what adaptation means? All these bird beaks are adapted to something; what are they adapted to?* The food that bird eats.

*Can you give examples of adaptation for other animals than birds?* Polar bear – white, gills – fish, tail for climbing trees – monkeys, ....

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play ~10-30mins

**Strange Beast!?**

Tell the students that the class will be creating a 'Strange Beast'. *Every student can name one animal body part that I will draw to create our... 'Strange Beast'. But before I draw the body part, you must tell me why the 'Strange Beast' needs it and how it uses it. Think of all the different animals you know.*

This will be a fun exercise in drawing for the ecoMentor, so have fun with it! Encourage the students to come up with creative body parts and funny functions. When the animal is finished you can review some of the body parts and ask if anyone can give the 'Strange Beast' a name.

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play(Pt. II or Cont...) ~10-30mins

### Senses

Hand out the senses worksheet: let the students fill out the worksheet

Discuss the correct answers. *Why are animal senses so important? Why have some animals better sight, and others better hearing?* Point out the importance of adapting to their habitat and their prey/predators!

If there is time: read some of the following riddles and let the students guess the animal!

- 1) My home is a burrow in the ground. I come out only at night when it's cool and damp and when I'm not likely to be seen. Lots of animals, especially early birds, like to eat me, but I can scoot down my burrow quickly if someone tries to grab me, and I am very sensitive to vibrations in the ground. Don't fish around too long for the answers! (worm)
- 2) I sing my song when summertime is aging and fall is on the way. I don't sing with my voice though. Some people know I wing it. My long antennae help me to sense when danger is around. Still, my kind often becomes lunch for birds, shrews and even tiny snakes. I might live under a rock or spent my time in a clump of grass. Did you know that African people like to eat me too? (cricket)

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play(Pt. II or Cont...) ~10-30mins

### Camouflage:

Ask the students: *Does anyone know what camouflage means? Why would some animals use camouflage? Can you name some examples of camouflage?*

Make a list of animals that use camouflage on the black board. Ask the students if they can spell the animal names. You could prepare pictures of camouflaged animals in advance and show them to the class!

If there is time: ask one student at a time to go through the classroom and place an object (for example a crayon) or him/herself in a place where it/he/she is best camouflaged.

*Is camouflage a way of adaptation? Yes it is!*

Activity, Game, Exercise, Debate, Puzzles, Problem Solving, Role Play(Pt. II or Cont...) ~10-30mins

### Life cycle:

Let the students describe the life cycle of a human. Draw this on the black board (baby, toddler, student, teenager, adult, old person); what happens? > growth

Let the students describe the life cycle of a frog. Draw this on the blackboard (eggs, tadpole, frog). What happens? > change

*Why does the frog change when it gets older?* Because first it lives in water, and later it also lives on land. *What needs to change for the frog in order to live on the land?* It changes from gills to lungs and from fins to legs!

*In which way is the life cycle of humans different than the life cycle of frogs?* (no change, only growth). *Does anyone know what we call a life cycle like the frogs (metamorphosis). Can anyone name other animals that go through metamorphosis? Can anyone name another animal that does NOT go through metamorphosis?*

Contingency, Plan B, extra game or activity (Back up plan) ~5-10mins

### Charades:

Whisper an animal in the student's ear. The student will act out the lifecycle of the animal and the things the animal does to grow and survive. Let the other students guess what animal it is. The winner is next.

### Riddles:

Let the students come up with their own riddles to describe animals!

Review, Conclusion and steps towards continued action ~5-10mins

*What did adaptation mean?*

*What are different ways for an animal to adapt to its environment?*

References

<http://www.birds.cornell.edu/AllAboutBirds/>

Teaching Green; the elementary years

Great work ecoMentor! After use of Lesson Plan revise, add ideas and repeat!