

Learning to Observe Animals

At Zoo School, the students spend up to an hour observing an animal group. It seems like a long time but it is amazing and fascinating to see what students write about and draw. Students are encouraged to observe the animal's characteristics, behaviour, the food provided, and the enclosure (habitat) and enrichment items placed in it. Taking time to observe animals at the Zoo has turned out to be the most powerful learning experience of the week for students at Zoo School.



Observations are “accurate watching and noting of phenomena as they occur in nature.” Observations are factual and are obtained by using all of the senses. **Inferences** are conclusions which are drawn based on observations.

Observation Skills:

These skills are built up over time at school with activities such as: Observe and describe interesting articles or biofacts (items from living things such as skulls, pelts, leaves, etc.). Include both qualitative and quantitative observations.

- List as many observations as you can about a pencil
- Examine a stainless steel spoon. Describe the differences in the reflections from the concave and convex surfaces of the spoon.
- Select an object, describe it using as many of your senses as possible. Share your description and see if another person can guess what it is.
- Describe an object from three different perspectives. (different angles, up close, farther away, looking down on it, lying on your back and looking up). Try this with a tree! How does perspective affect observations?
- Describe animal behaviours, interactions and movement in a video with the sound off .
- Play a clip of a video several times and observe something different each time.
- Observe a classroom pet or an animal that is brought in.
- Observe the teacher's appearance and behaviour for five minutes or so (e.g. mismatched earrings, pencil behind ear, taking off sweater, picking up something, talking, expressions),
- Go to a natural area (or even outside your school). Take a few minutes to record first impressions (sights, sounds, smells, weather). Take 20 – 30 min to explore, observe, write, and sketch. Find interesting natural objects.
- Visit a gym class to observe one child for twenty minutes.

Vocabulary:

Vocabulary is vital - words like agile, timid, playful, aggressive add so much to their writing.

Behaviour Vocabulary: eg. grooming, foraging, defending territory, dominance, submissive behaviour, nursing, playing, threat displays, play fighting, actual fighting,

greetings, scent marking

Movement Vocabulary: eg. Knuckle walking, climbing, swinging, leaping, browsing, rubbing, stalking, crouching, stretching, scratching

Vocabulary to describe physical characteristics such as size, colour, body coverings, features.

Try listing specific movement and behaviour vocabulary for individual species such as gorillas, elephants or tigers.

Ecology and conservation vocabulary – endangered, threatened, extinct, extirpated, Habitat

Observations and Writing

Writing is more expressive when it is in a descriptive narrative form in complete sentences. If you start this form of writing during the observation lessons at school they will be well prepared by the time they come to the Zoo. Avoid point form notes.

Compare: - eating - chewing

Vs.

The adult male giraffe used his long blue tongue to grab the branch and then to strip the leaves off to eat. When he chews, his lower jaw moves from side to side against the upper jaw.

Use the 'who, what, where, when, and how' formula in describing what you observe. Who is doing the behaviour? Who are they interacting with? What are they doing? How are they doing it? Where are they located?

e.g. The juvenile spider monkey hung from the branch with his tail and used his two hands and his feet to play fight vigorously with the other young spider monkey.

The mother gorilla is lying on her back near the wall at the back of the enclosure. Her baby is laying on her stomach and nursing.

We can't know what an animal is thinking or feeling. If we infer a feeling then we have to say why we think so. What behaviour of the animal leads us to think that?

e.g. I think the tiger is tired and hot because it is lying in the shade and panting.

I observe two young gorillas rolling on the grass and wrestling, then taking turns chasing each other. I infer they are playing and having fun.

Use analogies. What else does this remind you of? What else does this look like?

Use comparisons and metaphors to help describe what you observe.

e.g. The green feathers on the parrot are like the green of new leaves that first come out in the spring.

When the elephant peed, it sounded like a waterfall hitting the rocks.

Sketching and Drawing at the Zoo

Drawing is a tool for observing. It is a wonderful way to slow down, focus, and really look closely at details. Students should draw directly in their field journals.

Everyone can draw when given some skills and we suggest that you do several lessons in drawing at school. Sample drawing ideas at school might include:

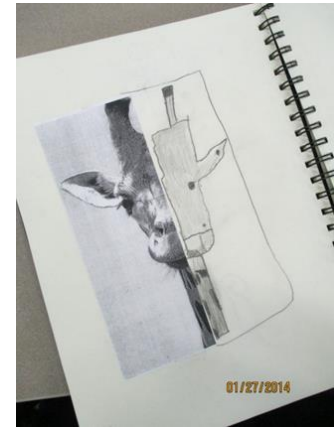
- Comparing quick sketches and finished drawings
- Using the same object, sketch it in 30 seconds, 60

seconds, three and five minutes.

- Quick sketches of animals from pictures or books
- Quick sketches from moving animals on a video, or people
- Gesture sketches
- Sketches of animals in your classroom or a pet you

bring in

- Drawing an animals from a picture
- Cutting a picture of an animal in half and reproducing the missing half
- Scientific sketches of plants or animals that are labelled
- Use of different media such as pastels or water colour pencils
- Try drawing just certain parts of the animal such as its foot, an ear, or its face.
- Combine writing and drawing. Describe the drawing. Label the sketch.
- Some important points are:
- Draw only what you see - use your brain and your eyes
- Use light strokes so that you can erase
- Model by drawing and writing yourself. Even if you think you can't draw, you can!



Reflections

Students can also write down any questions, concerns, thoughts, beliefs, feelings regarding their animal. These might include 'I wonder...' or 'I think that...' statements.

Which animals should the students observe?

At Zoo School, the students spend an hour on four of the days observing an animal group. This develops their observation and reflection skills, and creates a bond between students and animals. Taking time to observe animals at the Zoo has turned out to be the most powerful learning experience of the week for many students at Chevron Zoo School. Students should have their journals and pencils with them to draw and write what they observe. They should be encouraged to write/sketch about **anything** that happens or that they see. Initially, guidelines or specific questions should be limited to allow free flow of thoughts. However, as the week progresses students can be challenged to look more deeply by providing a guided question or a specific focus, including the big idea. This can also be helpful for students who need more direction.

Animals that interact in family groups are best to observe over time. Students will see individual behaviours as well as interactions among individuals. Animals are grouped according to the areas of the Zoo where they are found. The following animals are best for long term observations:

African Savannah

Giraffes

Hippopotamus

Red River Hogs (a possibility!)

Meerkats

TransAlta African Rainforest

Western Lowland Gorillas and Colobus Monkeys

Straw-Coloured Fruit Bats

Eurasia – outside! Dress for the weather!

Amur Tigers

Japanese Macaques

Red Panda

Greater One-Horned Rhino (can be viewed indoors)

Snow Leopard

Komodo Dragons (inside exhibit)

Observation Suggestions for Volunteers

- Stay at the animal enclosure for the full time.
- Model by observing, writing and drawing yourself. Model attitude through your own interest and curiosity.
- Ask questions that guide the children to observe.
- Allow for quiet time so the students can write and draw on their own. (You don't always need to be talking.)
- Encourage the students to write as descriptively as possible. Try to create verbal pictures so that others can see what they saw through words and description.
- During the observations, students might
 - write about animal behaviours, what the animals are doing
 - describe the animal or part of the animal such as the face or the foot
 - describe the enclosure
 - write about how the animals use the enclosure
 - draw the animal or part of the animal
 - draw the enclosure or part of the enclosure
 - write about what they have sketched
 - make a map of the enclosure
 - observe, write about and sketch anything that catches their attention and interest!
 - When the animals are resting and inactive, students might
 - Sketch the animal
 - Sketch and/or map the enclosure
 - Describe the enclosure and what is in it
 - Sketch and describe the food and/or scat of the animal
 - Describe enrichment techniques in the enclosure
 - When students make an inference about how an animal is feeling or what it is thinking,

have them give their reasons WHY. We can't really know an animal's thoughts and feelings. E.g. I think the sloth bears are having fun play fighting because they are running around chasing each other and attacking each other but they are not hurting each other.

Observing with Dr. Jane Goodall – a great resource

The Jane Goodall Institute has excellent materials for students and teachers. They have a whole Teachers' Guide online called Lessons for Hope. There is even video footage of Jane talking about observing and her life as a chimpanzee researcher. The section on observing offers great suggestions and resources. The Guide is much more than science and observing. Dr. Jane also explores how each of us can make a difference. Lessons for Hope is an online curriculum that explores the sources of Dr. Jane's optimism and

hope for the future. Students learn how Dr. Jane sustained herself through 40 years of researching chimpanzees and travelling the world promoting conservation and positive action. Twelve lessons allow young people to examine their own lives and find empowerment through reflection and learning.

www.lessonsforhope.org

www.lessonsforhope.org/teachers/UNIT_2/U2_unit2_chart.asp

- Overview of Unit Two of the Guide which focuses on observation skills

www.lessonsforhope.org/student/Unit2/

- Student pages

Action Suggestions from Jane Goodall

The Jane Goodall Institute has a program for action called “Roots and Shoots”

(www.rootsandshoots.org). Dr. Jane’s philosophy is, “Every individual matters, every individual has a role to play, every individual makes a difference.” Young people are encouraged to take on projects in three theme areas to make the world a better place for all living things.

- Care and concern for the environment.
- Care and concern for animals.
- Care and concern for the human community.