Calgary Captured 7-9 Program

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Calgary Captured Messages

1. Calgary's urban parks are sources of biodiversity
2. Identifying which species live and move around Calgary
3. Learning how those species move to gain a better understanding of their needs
4. Establishing coexistence with wildlife (i.e. reducing human wildlife conflict)

Relevant Curriculum Topics

- Grade 7 Social Studies: challenges of coexistence among peoples, positive and negative consequences of political decisions, impacts of urbanization
- Grade 7 Science: ecosystem interactions/natural cycles/processes of change and how human activities impact ecosystems, unintended consequences of human activity, flow of energy within ecosystems and food webs, how pollutants enter and move through the environment and can be concentrated in some organisms, possible actions or consequences on a local environmental issue, needs and uses of plants
- Grade 8 Social Studies: how a society's beliefs and values can be shaped by geography
- Grade 8 Science: how do water/land/climate interact, human impacts on aquatic systems
- Grade 9 Social Studies: how do governmental decisions on environmental issues impact quality of life
- Grade 9 Science: biodiversity of species, impacts of human action on species survival and variation within species, monitoring water quality, mechanisms affecting the distribution of potentially harmful substances within an environment, potential environmental risks from consumer practices and industrial processes

Protectors of the Land Training Course

Part 1: Learn the ways of the land
Part 2: Know the animals and how they move
Part 3: Learn the threats

*** students should complete worksheet activities 1, 3 and 4 AFTER presentation, unless tons of time***

Introduction

Welcome class, introduce self, introduce program topic, treaty acknowledgement

Part 1: The Land (Biodiversity)

- Introduction to weaselhead park + uses of the park
- Brief intro to weaselhead ecosystems/habitats (forest, grassland, river, etc.)
- **Activity:** Land Trivia
- Define biodiversity and why it is important (ecosystem health). Define ecosystem.

Part 2: The Animals

- How do we know which animals are using the park? PHOTO EVIDENCE
    - Explain what the Calgary Captured project is. Define citizen science.
    - Go through wildlife cam photos, identify animals, talk about their sensory abilities, adaptations, how they move through the park, and how they utilize their habitat

- After photos: why is it important to have parks in urban areas? For wildlife!
    - Not all of the photos were taken in the Weaselhead. They were taken throughout Calgary's URBAN parks (Nose Hill, Fish Creek, Ralph Klein, Weaselhead, etc.)
    - The Calgary Captured project shows us that we have WILD NEIGHBOURS! We may not think of wildlife when we think of our neighbours, but these photos show us that we have wild animals that share space with us in the city of Calgary
    - **Activity:** write a story/poem/song that tells the story about one of the animals we saw in the photos... it doesn't have to be real! Share (some) students stories, if time...

Part 3: The Threats

- **Activity:** Trivia Time
- From global threats of biodiversity (climate crisis, global warming, deforestation, pollution, etc.) to local threats of biodiversity
    - Parks are land that is set aside to protect the plants and animals. Urban parks are important because it is the home of all of the animals we just saw photos of, and it is important for them to have space for their habitat (forest, etc) within the busy, bustling city
    - We have rules in parks, to make sure that the wildlife (and their habitat) don't get harmed... To protect biodiversity. What are some things we are not allowed to do inside the park? What happens if people do those things JUST OUTSIDE of the park?
- Ring Road and its impacts
    - Habitat loss/ urbanization
    - Noise pollution
    - Wildlife movement
    - Pollution/waste
    - Impact on Beaver Pond and water quality

- **Activity:** Beaver Pond spill simulation (water quality test)
    - Use probe to test water quality of Beaver Lagoon (water in jar), then add fertilizer, road salt, and sediment to water and test water quality again. Get students to predict what might happen to the water quality when these things are added.
    - Sediment in water = increased turbidity, lower dissolved oxygen
    - Fertilizer = increased nutrients (nitrates and phosphates) can lead to eutrophication
    - Salt = increased salinity, increased chloride concentrations (chloride is toxic to aquatic life) which can reduce the number of plants/animals and kill biodiversity, and high salt concentrations can also reduce water circulation in lakes and ponds which prevents the necessary flow of oxygen through the water
        - Salinity and conductivity are connected since conductivity measures water's ability to conduct electricity and a higher conductivity value indicates that there are more chemicals (like salts) dissolved in the water
    - How does this impact wildlife that live in the water? How does this impact wildlife that live on land?

- Humans/the way we think about our wild animal neighbours can impact how we treat them! Are you afraid of any animals?
    - If we are afraid of animals we probably won't do a good job at protecting them or being good neighbours to them. Our own fear is a threat.
    - Bears, bats (and their benefits), bobcat vs house cat size comparison, coyote vs dog comparison = these animals are not scary, they just need space
    - They aren't cute, cuddly PETS either... they need space! Habitat that is not being taken over by roads, humans, and off-leash dogs...
- **Activity:** Take a Stand
    - It is our responsibility as citizens to make sure our parks and protected areas are preserved for wildlife habitat
    - Parks and protected areas harm the economy
    - Parks should be made more accessible to people to be used for recreation
    - It is important to have a good relationship with our wild neighbours

Conclusion

- Are we being good neighbours to the wildlife in Calgary? How can we be better?
    - Ways we are not being good neighbours = building roads beside parks (restate impacts of RR), thinking negatively of these animals/ thinking they are aggressive (fear)
    - Ways we can be better = giving animals their space (habitat), making RR a better road, learning more about these animals, and speaking up for them