

7-9

Animals Teach and Inspire Us

TEACHER'S GUIDE



ANIMALS TEACH AND INSPIRE US

We teach our animals many things, but have you ever thought about how much animals teach us? Animals can teach us patience, determination and love. They can inspire us to solve problems, consider others and be kinder people. Caring for and about animals also helps students develop responsibility and empathy, skills that can be applied to various aspects of their lives.

DISCUSSION QUESTIONS

Present the poster to the class and discuss the following questions. Encourage students to share thoughtful answers and remind them to listen to their classmates.

- In what ways do animals demonstrate characteristics or traits that humans admire, such as loyalty, perseverance, or cooperation? Can you give examples?
- What do you think are the responsibilities we have towards animals? How does caring for animals teach us about empathy and compassion?
- Do you think animals have the ability to inspire us? If so, in what ways?
- How can observing animal behaviour in nature help us solve human challenges?
- How can animals teach us about dealing with adversity or challenging situations in life?
- How can the environment teach and inspire us to be better members of our community?
- How are animals, people and the environment connected? Explain. Why is this interconnection important?

ACTIVITIES

1. ANIMAL INNOVATORS - STEM RESEARCH AND PRESENTATION

OBJECTIVE: Students will explore how animal behaviour can inspire human innovation and technology.

MATERIALS:

- Access to research materials (books, internet, etc.)
- Access to Google slides, Canva or other presentation tools

INSTRUCTIONS

Different animals can teach us different things! Individually, or in pairs, have students pick an animal to research. Students can pick a pet, farm or wild animal. Have students research how certain animal behaviours or physical adaptations



ANIMALS INSPIRING HUMAN TECHNOLOGY

- [How studying birds helped engineers design airplanes.](#)
- [How studying ants led to advancements in robotics.](#)
- [How whale fins inspired wind turbine design.](#)

have inspired human technology (e.g., how studying birds helped engineers design airplanes, how studying ants led to advancements in robotics, or how whale fins inspired wind turbine design).

Then have students create a presentation using Canva or Google Slides that explains the connection between the animal's behaviour/adaptation and the human intervention or innovation.

Each presentation should include:

- A description of the animal and their behaviour/trait.
- How scientists or engineers used this information to solve a human problem or create new technology.
- Reflection on what this tells us about learning from the natural world.

DISCUSSION EXTENSION: After the presentations, discuss the significance of nature inspired innovation and how closely humans are linked to the natural world in finding solutions to complex problems.

2. ANIMALS IN MEDIA

OBJECTIVE: Students will use current events about animals to foster critical thinking and perspective taking

MATERIALS:

- Current news articles featuring animals. *Look for articles that feature a diversity of animals (pet, farm and wild animals).*
- Analyzing Animal Articles Activity Sheet

INSTRUCTIONS:

There are many news articles that feature animals. As animals, people and the environment are interconnected, this is a good opportunity to focus whose perspectives are being represented in media and whose perspectives are missing. Choose an animal article(s) for students to analyze. Visit our website for a short list of articles organized by topic or have students find their own.

Have students consider the following questions to assist them in analyzing the article. Students can record their answers to the following questions on the Analyzing Animal Articles Activity Sheet.

- What is the source of this information? (What organization or author wrote the article?)
- Whose perspective is represented in the article?
- Whose perspective is missing? (make sure to consider the perspective of animals and the environment!).
- What techniques are used to make the message credible? Quoting experts, using statistics, etc.



- What facts are included in the article? What information are we missing?
- What opinions are expressed in the article, and who expressed them? Do you agree or disagree and why?
- Do you think this article is credible (Do you believe the information in the article)? Why or why not?
- How did the article make you feel? Do you think everyone would feel this way?




Once students have finished analyzing the article, have a class discussion encouraging students to share their analysis.

EXTENSION: Have students rewrite the article taking into consideration the perspective of the animal.

3. OFF LEASH OBSTACLE - EMPATHY-BUILDING THROUGH A ONE HEALTH LENS

OBJECTIVE: Students will explore different perspectives to solve a complex, real world problem while recognizing the importance of the interconnectedness of animals, people and the environment.

MATERIALS:

- Off Leash Obstacle Teacher's Guide 
- Role Cards 
- Google Slides (optional) 

With the understanding that the health of people, animals, and the environment are interdependent, One Health takes an integrative approach to complex problems. Students will learn that it is necessary to work collaboratively with people from multiple sectors, disciplines, and communities to find sustainable and balanced solutions to problems that consider the health and well-being of people, animals, and the environment. This exercise is also intended to encourage young people to look at a problem from multiple perspectives.

To get started, download and print the teacher's guide and student role cards. You can also make a copy of the Google Slides so that students are able to edit the slides to complete the activity.

Thanks to Michele Anholt, DVM, PhD, Senior Specialist from the University of Calgary for her collaboration on designing this resource.



CURRICULUM CONNECTIONS

**Curriculum connections to Off Leash Obstacle can be found at the back of the teacher's guide*

GRADE 7 CURRICULUM CONNECTIONS

SOCIAL STUDIES

Local and Current Affairs

In order to allow opportunities for students to engage in current affairs, issues and concerns of a local nature, the program of studies provides the flexibility to include these topics within the time allotted for social studies.

DIMENSIONS OF THINKING

Students will:

7.S.1 develop skills of critical thinking and creative thinking:

- Determine the validity of information based on context, bias, source, objectivity, evidence and/or reliability to broaden understanding of a topic or an issue
- evaluate, critically, ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze local and current affairs
- re-evaluate personal opinions to broaden understanding of a topic or an issue
- access diverse viewpoints on particular topics, using appropriate technologies (ICT)

SOCIAL PARTICIPATION AS A DEMOCRATIC PROCESS

Students will:

7.S.5 demonstrate skills of cooperation, conflict resolution and consensus building:

- Consider the needs and perspectives of others

COMMUNICATION

Students will:

7.S.8 demonstrate skills of oral, written and visual literacy:

- elicit, clarify and respond appropriately to questions, ideas and multiple points of view in discussions
- listen to others in order to understand their perspectives
- offer reasoned comments related to a topic of discussion

7.S.9 develop skills of media literacy

- detect bias on issues presented in the media
- examine the techniques used to enhance the authority and authenticity of media messages
- examine the value, lifestyles and points of view represented in a media message

LANGUAGE ARTS

General Outcome 1: Students will listen, speak, read, write, view and represent to explore thoughts, ideas, feelings and experiences.

1.1 Discover and Explore



Express ideas and develop understanding

- extend understanding of ideas and information by finding and exploring oral, print and other media texts on related topics and themes

1.2 Clarify and Extend

Consider the ideas of others

- Listen and respond constructively to alternative ideas of opinions

Extend understanding

- talk with others to elaborate ideas, and ask specific questions to seek helpful feedback

General Outcome 2: Students will listen, speak, read, write, view and represent to comprehend and respond personally and critically to oral, print and other media texts.

2.1 Use Strategies and Cues

Use comprehension strategies

- identify, connect, and summarize in own words, the main ideas from two or more sources on the same topic

2.2 Respond to Texts

Experience various texts

- organize interpretations of oral, print and other media texts around two or three key ideas

General Outcome 3: Students will listen, speak, read, write, view and represent to manage ideas and information.

3.2 Select and Process

Access information

- distinguish between fact and opinion, and follow the development of argument and opinion

3.3 Organize, Record and Evaluate

Evaluate information

- assess if the amount and quality of gathered information is appropriate to purpose and audience; address information gaps

General Outcome 4: Students will listen, speak, read, write, view and represent to enhance the clarity and artistry of communication.

4.3 Present and Share

Present information

- present ideas and opinions confidently, but without dominating the discussion, during small group activities and short, whole class sessions

Demonstrate attentive listening and viewing

- ask questions or make comments that elicit additional information; probe different aspects of ideas, and clarify understanding

General Outcome 5: Students will listen, speak, read, write, view and represent to respect, support and collaborate with others.

5.1. Respect Others and Strengthen Community

Appreciate diversity

- explain how differing perspectives and unique reactions expand understanding



SCIENCE

Skills Outcomes

Initiating and Planning

Students will:

Ask questions about the relationships between and among observable variables, and plan investigations to address those questions

- identify science-related issues
- identify questions to investigate arising from practical problems and issues

Performing and Recording

Students will:

Conduct investigations into the relationships between and among observations, and gather and record qualitative and quantitative data

- research information relevant to a given problem or issue
- select and integrate information from various print and electronic sources or from several parts of the same source

GRADE 8 CURRICULUM CONNECTIONS

SOCIAL STUDIES

Local and Current Affairs

In order to allow opportunities for students to engage in current affairs, issues and concerns of a local nature, the program of studies provides the flexibility to include these topics within the time allotted for social studies.

DIMENSIONS OF THINKING

Students will:

8.S.1 develop skills of critical thinking and creative thinking:

- analyze the validity of information based on context, bias, source, objectivity, evidence and reliability to broaden understanding of a topic or an issue
- evaluate ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze local and current affairs
- re-evaluate personal opinions to broaden understanding of a topic or an issue

SOCIAL PARTICIPATION AS A DEMOCRATIC PROCESS

Students will:

8.S.5 demonstrate skills of cooperation, conflict resolution and consensus building:

- consider the needs and perspectives of others

COMMUNICATION

Students will:

8.S.8 demonstrate skills of oral, written and visual literacy:

- elicit, clarify and respond appropriately to questions, ideas and multiple points of view in discussions



- listen to others in order to understand their points of view
- offer reasoned comments related to a topic of discussion

8.S.9 develop skills of media literacy

- examine the value, lifestyles and points of view represented in a media message

LANGUAGE ARTS

General Outcome 1: Students will listen, speak, read, write, view and represent to explore thoughts, ideas, feelings and experiences.

1.1 Discover and Explore

Express ideas and develop understanding

- seek out and consider diverse ideas, opinions and experiences to develop and extend own ideas, opinions and experiences

1.2 Clarify and Extend

Consider the ideas of others

- acknowledge the value of the ideas and opinions of others in exploring and extending personal interpretations and perspectives

General Outcome 2: Students will listen, speak, read, write, view and represent to comprehend and respond personally and critically to oral, print and other media texts.

2.1 Use Strategies and Cues

Use comprehension strategies

- enhance understanding by paraphrasing main ideas and supporting details, and by rereading and discussing relevant passages

2.2 Respond to Texts

Experience various texts

- expect that there is more than one interpretation for oral, print and other media texts, and discuss other points of view

General Outcome 3: Students will listen, speak, read, write, view and represent to manage ideas and information.

3.2 Select and Process

Access information

- record key ideas and information from oral, print and other media texts, avoiding overuse of direct quotations

3.3 Organize, Record and Evaluate

Evaluate information

- evaluate the relevance and importance of gathered information; address information gaps

General Outcome 4: Students will listen, speak, read, write, view and represent to enhance the clarity and artistry of communication.

4.3 Present and Share

Present information

- plan and facilitate small group and short, whole class presentations to share information

General Outcome 5: Students will listen, speak, read, write, view and represent to respect, support and collabo-



rate with others.

5.1. Respect Others and Strengthen Community

Appreciate diversity

- clarify and broaden perspectives and opinions, by examining the ideas of others

SCIENCE

Skills Outcomes

Initiating and Planning

Students will:

Ask questions about the relationships between and among observable variables, and plan investigations to address those questions

- identify science-related issues
- identify questions to investigate arising from practical problems and issues

Performing and Recording

Students will:

Conduct investigations into the relationships between and among observations, and gather and record qualitative and quantitative data

- research information relevant to a given problem or issue
- select and integrate information from various print and electronic sources or from several parts of the same source

GRADE 9 CURRICULUM CONNECTIONS

SOCIAL STUDIES

Local and Current Affairs

In order to allow opportunities for students to engage in current affairs, issues and concerns of a local nature, the program of studies provides the flexibility to include these topics within the time allotted for social studies.

DIMENSIONS OF THINKING

Students will:

9.S.1 develop skills of critical thinking and creative thinking:

- determine the validity of information based on context, bias, source, objectivity, evidence and/or reliability to broaden understanding of a topic or an issue
- demonstrate the ability to analyze current affairs from multiple perspectives

SOCIAL PARTICIPATION AS A DEMOCRATIC PRACTICE

Students will:

9.S.5 demonstrate skills of cooperation, conflict resolution and consensus building:

- demonstrate a positive attitude regarding the needs and perspectives of others

COMMUNICATION

Students will:



9.S.8 demonstrate skills of oral, written and visual literacy:

9.S.9 develop skills of media literacy:

- examine techniques used to enhance the authority and authenticity of media messages
- examine the values, lifestyles and points of view represented in a media message

LANGUAGE ARTS

General Outcome 1: Students will listen, speak, read, write, view and represent to explore thoughts, ideas, feelings and experiences.

1.1 Discover and Explore

Express ideas and develop understanding

- extend understanding by taking different points of view when rereading and reflecting on oral, print and other media texts

1.2 Clarify and Extend

Consider the ideas of others

- integrate own perspectives and interpretations with new understandings developed through discussing and through experiencing a variety of oral, print and other media texts

General Outcome 3: Students will listen, speak, read, write, view and represent to manage ideas and information.

3.3 Organize, Record and Evaluate

Evaluate information

- evaluate sources for currency, reliability and possible bias of information for a particular research project

Record information

- use own words to summarize and record information in a variety of forms; paraphrase and/or quote relevant facts and opinions; reference sources

SCIENCE

Skills Outcomes

Initiating and Planning

Students will:

Ask questions about the relationships between and among observable variables, and plan investigations to address those questions

- identify science-related issues
- identify questions to investigate arising from science-related issues
- define and delimit questions and problems to facilitate investigation

Performing and Recording

Students will:

Conduct investigations into the relationships between and among observations, and gather and record qualitative and quantitative data

- research information relevant to a given problem or issue

