

# Sharing Spaces 6-8th

Themes: Co-existence with Wildlife

#### **Location:**

**Remote learning modification:** Lesson can be taught over Zoom or Google Classrooms.

The PowerPoint, brainstorming, and assessments can be done in the classroom with student computers. The field location may vary depending on what project(s) students choose.

#### Standards:

## **NGSS**

#### MS-ESS3-3

Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

#### **CCSS**

#### **ELA-Literacy.WHST.6-8.6**

Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.

# Washington OSPI Standards

### **ESE Standard 2**

Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments.

#### **EdTech**

#### 3.b.

Students practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance.

Students publish or present content designed for specific audiences and select platforms that will effectively convey their ideas to those audiences.

#### **Materials:**

WDFW PowerPoint, Issue analysis sheet for distribution

#### **Modifications, Adaptations:**

For COVID-19 distance learning, or other remote learning modification, look for **remote learning modifications** throughout the lesson plan.

This lesson can be modified so that the entire class works on one project together. You may be able to find grants for such classroom projects. To modify for the class, have students vote on the issue and resolution they would like to pursue the most. Working as a class, you may have to distribute tasks evenly, but try and ensure students work on something that interests them.

# **Vocabulary:**

**Co-existence:** Living or existing at the same time or in the same place.

**Collaboration:** Working with someone or a group of peoples to produce or create something.

**Ecosystem services:** Any positive benefit (direct or indirect) that wildlife or ecosystems provide to people.

**Environmental issue/problem:** When human actions create harmful effects to the environment. Can be a social issue when people disagree about solutions.

**Habitat fragmentation:** Fragmentation is often defined as a decrease in some or all types of natural habitats in a landscape, and the dividing of the landscape into smaller and more isolated pieces.

Rural: Characteristic of the countryside.

**Urban:** Characteristic of a town or city.

**Suburban:** A suburb or suburban area is a mixed-use or residential area, existing either as part of a city or urban area or as a separate residential community within commuting distance of a city.

## **Objectives:**

Students will...

- Identify problems that might arise when people, wildlife, and domestic animals share spaces.
- 2. Examine the history of a specific human-wildlife conflict.
- 3. Analyze and identify credible sources and potential partnerships for their community project.
- 4. Construct a multi-media outreach project that addresses a human-wildlife issue in their community.
- Summarize the effectiveness of their project on resolving the issue.

#### **Procedure:**

### 1. Introduction to wildlife in your community

Open up the WDFW PowerPoint and run through the slides with students. Make sure when presenting that you have presenter notes turned on. This introductory PowerPoint will introduce students to human-wildlife interactions and will have them consider potential conflicts between people and wildlife in their area.

Topics you will review include:

- What is the difference between wildlife and domestic animals?
- Are there any spaces that wildlife and domestic animals share?
  - · What about wildlife and humans?
- Are there ever any problems when people, domestic animals, and wildlife share spaces?
  - If so, why do you think these problems occur? Habitat fragmentation, free-ranging domestic animals, feeding wildlife, etc.



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- How might humans negatively affect wildlife behavior?What happens when people feed wildlife?
- Do wildlife provide any benefits to humans?
- Do humans provide any benefit to wildlife?
- How might wildlife impact the lives of humans when they share spaces?

While students are sharing, create a list of topics where people and wildlife experience conflict. For example, raccoons getting into trash, hawks killing chickens, black bears eating bird seed, coyotes eat neighborhood cats, deer eating gardens, hiking or camping in cougar country, etc.

#### 2. What's the issue?

Share the list of human-wildlife conflict topics students created in the previous exercise. Ask students to choose three topics and brainstorm at least one way they think they could help resolve each issue within their community. This could range from creating a flyer to hand out to neighbors to creating a project that helps people secure their garbage during the evenings. The topic could also focus on how students could help wildlife thrive, such as attracting pollinators by planting native plants at a local park or informing community members of the hazards of rodenticides/pesticides. The definition of community can vary from a student's neighborhood, to their town or city to their county to the state, depending on the topic, student's interest, and ambition. Topics can range from habitat fragmentation to feeding wildlife to not attracting wildlife. Have students do some background research into the three topics they chose.

#### **Questions include:**

- What is the history or background of this issue?
- What is/are the animal(s) involved? Give a brief natural history of the species.
- What, if anything, has been done in other communities to resolve this issue?
- What, if anything, has been done in the student's community to resolve this issue?
- If the community has not experienced resolution, what steps might be helpful according to credible sources (see have a CCOW from Gonzaga University). Review the Credentials Claims Objectives Worldview method with students. Have them do the "put it to use" tab for practice determining if web sources are credible.

From this research, students will choose one topic that most interests them. They will share their findings briefly with the class on the one topic. After everyone has shared, students will choose a topic idea they like the best. They can choose to work with someone else and their idea to create a plan to resolve the conflict in their community.

Students can choose to work in small groups (no more than three) or individually.

After choosing their topic, students should begin creating

a plan of how they are going to accomplish co-existence. This plan should include a written description as well as any illustrations which may aid in understanding.

Students should be realistic and consider:

- Funding Where will they get the money to fund this project? How can they accomplish this project on a limited to zero-dollar budget?
- **Sustainability** Will the project stand on its own after students are done or does someone need to continue to keep it up?
- **Effectiveness** Will this project likely help solve issues between people and wildlife?
- Feasibility Is this project within the scope of their abilities and resources?
- Potential partners What non-profit or government agencies may have resources or be able/willing to help achieve their goal?
- **Success** How will students measure whether their project was successful?
- Consider introducing the topic of SMART goals: Is the project Specific, Measurable, Achievable, Realistic, and Timely? Use their plan to offer suggestions to help make it more realistic and successful for the student(s). If you do not think a student's plan is feasible for any of the above reasons, work with them to help make their project more realistic.

#### 3. The Project

The project is open and should align with students' interests. It can vary from a public service announcement on YouTube and marketed to the target audience, to creating a website, to helping neighbors put up fences.

Give students a timeline with check-in dates or deadlines for their project to be accomplished. This will help ensure accountability and will help keep students on track. Ensure a system where students can provide you with regular updates on their project. This can be done via an online tracking or meeting check-ins.

#### 4. The Assessment

Students should document their progress along the way. This can include taking photos, videos, illustrations, or regularly writing about the steps they took. For their final assessment, students will write a blog about their experience, analyzing their results. Students can add photos, videos, or illustrations to their blog if they like. Questions they should consider include:

- Did things work out as they expected? Why or why not?
- What was the most difficult thing about this project?
- The most rewarding? What did they learn that surprised them?
- What might they do next time to improve the project?
- Did they think their project was a success, why or why not?

Students will be asked to send this blog to at least three community members they partnered or collaborated with.





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### **Additional Resources:**

We encourage you to use the following resources as either a supplement to this lesson, or to share the resources with students for their project.

#### Videos:

- Reducing conflict with bears-WDFW
- <u>Tips for cougar encounters-WDFW</u>
- Hiking in cougar county-WDFW
- Elk caught in fence freed-WDFW
- What is co-existence-Defenders of Wildlife
- Garden for wildlife- National Wildlife Federation
- Raccoons: Tricky Trash Pandas or Misunderstood Masterminds?

#### **Articles:**

- Living with wildlife-WDFW
- <u>Dangerous wildlife-WDFW</u>
- Species fact sheets-WDFW
- Create habitat at home-WDFW
- Winter wildlife feeding-WDFW
- Snags-the wildlife tree-WDFW
- Five tips to co-exist with bears-WDFW
- <u>Urban spaces and carnivores-Woodland Park Zoo</u>
- A year of co-existence story map series-Defenders of Wildlife