

# LESSON PLAN TEMPLATE

**Title:** “Biodiversity, what can we do?”

**Grade level/content area:** 8<sup>th</sup> Grade

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**Date lesson will be taught:** 22MAR2022

**Source of the lesson:** Teacher created. By Mayli Dasalla and Anna Gradel.

## CONCEPT STATEMENT

*The diverse life on Earth provides humans with a variety of crops, medicines, and recreational experiences. Currently, human activities threaten many species with extinction, but people around the world are working to protect biodiversity.*

## LESSON OBJECTIVES

*The students will investigate different ecosystems and be able to analyze the diverse species and interactions of the ecosystem.*

*The students will be able to explain the benefits of biodiversity*

*The students will be able to list and understand the dangers to biodiversity, and give examples of endangered and threatened species.*

*The students will understand and compare human interaction among ecosystems.*

## OBJECTIVE(s) ADDRESSED

*10.3.3 Explain four ways in which biodiversity is important to ecosystems and humans.*

*10.3.5 Define and give examples of endangered and threatened species.*

*10.3.6 Describe several ways that species are threatened with extinction globally.*

*10.3.7 Explain which types of threats are having the largest impact on biodiversity.*

*10.3.8 List and describe four types of efforts to save individual species.*

*10.3.11 Explain the advantage of protecting entire ecosystems rather than individual species.*

*10.3.12 Describe the main provisions of the Endangered Species Act.*

## MATERIALS NEEDED (Resources, supplies, and handouts)

- Poster (1 per group with 2 extra, 4 total)
- Colored Pencils or markers (1 pack per group plus one extra, 3 total)
- Poster instruction sheet (1 per group plus 2 extra, 4 total)
- Warm-up/Exit ticket (1 per person, 5 total)

*The students will be using the internet for online research, and the teachers will monitor to ensure websites are safe and school appropriate.*

| <b>ENGAGEMENT</b>  |   |
|--|---|
| <b>Estimated Time: _____</b>   |   |
| <b>Teacher and Student Activity</b>  | <b>Probing Questions</b>  |
| The teachers will welcome students into class while setting up the lesson. Ms. Gradel will greet and hand out warm up as students enter the classroom. Ms. Dasalla will set up powerpoint and write on white board while students enter the class. | <i>"How is your morning going?"</i>   |
| The students will individually work on their warm up. The warm up will be a diagram of what the students know, what they wish to know, and what they learned. The diagram will be kept and the last column will be utilized as their exit ticket.  | <i>"Does anyone have questions about what we're doing for a warm up?"<br/>"Are there any questions, or anything you'd like to review before we begin our lesson?"</i> |
| The teachers will relate diversity amongst themselves to biodiversity in an ecosystem to get them included and engaged.  | <i>"How are your differences beneficial to the class as a whole?"</i>   |
| The teachers will play a short video intended to catch their attention.  |   |

| <b>Transition</b>  |
|--|
| "Now that we've done a little review with our warm up, we're going to give a presentation with information for you to use in your activity." |

| <b>EXPLANATION</b>   |   |
|--|---|
| <b>Estimated Time: _____</b>   |   |
| <b>Teacher and Student Activity</b>  | <b>Probing Questions</b>  |
| The teachers will present the powerpoint presentation.   |   |
| The teachers will emphasize important points or key concepts the students should use in their activity.  |   |
| The teachers shall elaborate using clear examples.   | "Species A is a great example of an endangered species, can you list another endangered species?" |
| The teachers will alternate presenting powerpoint slides, and check for understanding by asking one student to reiterate the key point of the slide. | "What should you take away from this slide?"  |

| <b>Transition</b>   |
|---|
| "Alright, we've covered some great information with the intention that you will use it in your class activity. This is going to be a group activity. Each group has a guide sheet to outline this activity, and once we've gone over the guidelines as a class you're free to get started." |

| <b>EXPLORATION</b>   |  |
|--|--|
| <b>Teacher and Student Activity</b>  | <b>Estimated Time: _____</b>   |
| <b>Teacher and Student Activity</b>  | <b>Probing Questions</b>   |
| The students will create a poster that advocates for a specific ecosystem to be preserved and/or restored.                               | “What information is most important for your poster to help preserve your ecosystem?”                                  |
| The students will include endangered and threatened species, hazards, human impact, and the benefits of their ecosystem on their poster. | “How would you explain this to people who haven’t learned about biodiversity and populations yet?”                     |
| The teachers will walk around offering information and ideas for added guidance.   | “I see you listed the endangered species, do you think it would be a good idea to include how they became endangered?” |
| The teachers will answer student questions.  | “Does this group have any more questions?”   |

| <b>Transition</b>   |
|---|
| “It looks like everyone is finishing up their posters, so we’re going to take a quick couple of minutes to gather our thoughts before we share our posters with one another.” |

| <b>ELABORATION</b>  |   |
|---|---|
| <b>Teacher and Student Activity</b>   | <b>Estimated Time: _____</b>  |
| <b>Teacher and Student Activity</b>   | <b>Probing Questions</b>  |
| The teachers will guide the students in discussion about the posters.   | “Who would like to share their poster first?”<br>“Do you think these posters do a good job of sharing the information with people who might have no background in environmental science?” |
| The students will give a brief description of their poster including why they thought the information on their poster was important to include. | “Other than the guide sheet, why did you include this information on your poster?”  |

| <b>Transition</b>  |
|--|
| “Okay class, we have one more activity before you may go. You’ll fill out your exit tickets individually, and they will be collected when you’re finished. So, just flip them over to let us know when you’re done.” |

| <b>EVALUATION</b>  |   |
|--|---|
| <b>Teacher and Student Activity</b>                                  | <b>Estimated Time: _____</b>  |
| <b>Teacher and Student Activity</b>                                  | <b>Probing Questions</b>  |
| The teachers will instruct the students to fill out the exit ticket. | “Do you have any questions about the instructions?”<br>“What key words could help you elaborate your answers more?” |



## POSTER PROCEDURES

1. Be sure to include all of your name's somewhere on the poster.
2. Choose an ecosystem you want to illustrate in your poster.
3. Use drawing(s) and brief statements to get the point across - you are advocating to preserve and or restore this ecosystem.
4. Draw at least one endangered species from your chosen ecosystem. Why is this species endangered?
5. Include a short example of negative human impact on either your species or the ecosystem itself.
6. Use bullet points when writing.
7. Make use of color.
8. Use up the majority of the space on the poster sheet.
9. All persons in the group must participate.

There is no specific format or orientation for what must be included on the paper. Be creative! As long as your knowledge is clearly shown, and your poster is eye-catching, it is complete.

