Exploring Ecosystems: An Inquiry-Based WebQuest

Introduction

Greetings, educators. We'll be concentrating on developing an easy WebQuest that educates kids to ecosystems throughout this class. Students' curiosity will be inspired by this inquiry-based project, which will motivate them to learn more about the various realm of natural habitats.

WHAT IS AN ECOSYSTEM?

An ecosystem is a community of living organisms interacting with each other and their non-living environment.

What makes up an ecosystem?

- All living things (plants, animals, and bacteria)
- Non living things (the sun, rocks, and soil)



Task

Your task is to create a WebQuest that allows students to research various ecosystems and the parts that make them up.

FINAL OUTPUT

A brief presentation or poster outlining the most important features of a selected ecosystem should be the final output.

Process:

- 1. Introduction to Ecosystems: Begin by discussing the concept of ecosystem. Explain their importance and differences.
- 2. **Choosing Ecosystems**: Assign each student or group a specific type of ecosystem (forest, desert, ocean, etc.).
- 3. **Online Exploration**: Instruct students to use the internet to gather information about their assigned ecosystem.
- 4. **Key Components**: Guide students to identify and research the key components of their ecosystems, such as climate, flora, fauna, and any unique characteristic.
- 5. **Presentation Creation**: Using the information gathered, students create **a concise presentation or poster** that shows important aspects of their designated ecosystem.

Resources:



Recommended websites with information on various ecosystems.

- Bing Video 1
- Bing Video 2
- <u>Ecosystem</u>
- Introduction to Ecology Easy Peasy All-in-One High School
- Ecosystem- Structure, Functions, Units and Types of Ecosystem

Evaluation

Content: Accuracy and relevance of information.Presentation: Analyze, organization, and visual appeal.Understanding: Demonstrating the main components of ecosystems.

CONCLUSION

Reflect the ways in which this WebQuest encouraged students to conduct their own research. Talk about any new information you learned from the students' presentations and how the WebQuest format helped them learn about ecosystems. Well done for creating a lively and educational learning environment.

Credits

Teachers Page:

Objective: The primary goal of this WebQuest is **to let students understand how Ecosystems functions**. **By the end of the activity, students should be able to**:

- 1. Identify and explain the main elements of the ecosystems that have been assigned to them.
- 2. Exhibit critical thinking abilities by analyzing and combining data.

- 3. Effectively work as a team to produce a poster or presentation.
- 4. Communicate their results in an understandable manner, demonstrating a full understanding of the selected ecosystems.

Duration: This WebQuest is designed to be completed in approximately 3-4 days class periods.

Materials Needed:

- 5. Internet-connected devices
- 6. Access to the recommended websites listed on the Resources

7. Instructional Notes:

Start the WebQuest by giving each student or group an introduction of ecosystems and explaining the objectives they have been given. Assign roles and duties to team members

Encourage students to: Critically assess information, participate actively in online searches, and work well in groups. Remind them to properly credit their sources.

Throughout the research phase, check in with students to provide direction, answer questions, and make sure they're staying on topic. Encourage deeper investigation by facilitating conversations.

• Additional Notes for Teachers:

Make sure students understand the value of correct information and reliable sources. Remind students of the value of clear communication and teamwork. Emphasize the importance of using originality when creating the presentation or poster.

Assessment:

Refer to the provided rubric on the Evaluation page to assess students' performance.

Key criteria include content accuracy, critical thinking, collaboration, and presentation skills

Adaptations:

Feel free to adapt this WebQuest to suit the needs of your classroom and students. Consider modifications based on the students' grade level, prior knowledge, or available resources. Additionally, provide alternatives for students with diverse learning needs.

Adapted from <https://www.createwebquest.com/exploring-ecosystems-inquiry-based-webquest>