

## **Ecosystems: What's the issue?**

**Overview:** Each person plays a role in taking care of the environment. In order to be a productive citizen, it is important for students to understand how to take care of the world around them.

**Homework given the night before lesson:** With the help of parents/family member, have students' list 10 items in their trash at home that are non-food items.

### **Procedure:**

-Introduce the lesson by providing students with a variety of examples of how humans negatively impact the earth. For example: throw trash on the floor, provide pictures of cars with smoke coming out of the exhaust and pictures of trash in a lake or pond.

-Ask students, "What was wrong with these examples?" and "How can you make it better?" Brainstorm their ideas and write them on the board.

-Show a video examining how humans impact our ecosystem. There are a lot of YouTube videos on the topic of human impact on the earth. A suggestion:

[Environmental Pollution](https://www.youtube.com/watch?v=tmhiglxga-) <https://www.youtube.com/watch?v=tmhiglxga->

-Based on what the students learn from the video, create a list of examples of how humans impact the earth, negatively and positively. For example, humans negatively impact the earth by cutting down trees in the forest. Humans positively impact the earth when they plant trees in their yard.

-Using the examples discussed and the video, have students work with a partner to create a book about human impact on environmental issues. Have students create a cover page for their book and include at least five pages. On the top of each page, have students draw or paste a picture of a negative effect on the environment. On the bottom of the same page, draw or paste a picture of a positive effect on the environment.

-Have students include a title for each page of their book.

-Return to the students' homework assignment and have them give an alternative way to use everyday trash items instead of placing in the trashcan.

-Independently or with a partner, have students complete the *Ecosystem Quiz*.

### **ASOL covered in this activity:**

**5S-LPS 2** The student will investigate and understand how plants and animals, including humans, in an ecosystem interact with one another and the nonliving components in the ecosystem. Key concepts include

f) influence of human activity on ecosystems.

**8S-ECO 7** The student will investigate and understand the relationships between ecosystem dynamics and human activity.

Key concepts include

e) environmental issues.

### **Materials:**

- Construction Paper
- Plain paper
- Colored Pencils
- Ecosystem quiz

**Instructional Setting:** This activity is best taught in the general education science classroom. It can be taught in the resource room, but it is best practice to have typical peers involved.

**Community Connections and/or Peer Interactions:**

- Peer interaction involved by completing environmental issues book.
- Students understanding their role and responsibilities related to caring for the ecosystem.
- Learning and practicing how to reduce, recycle and reuse.
- Visit a local recycling plant.
- Participate in a school wide recycling project allowing students to gather recyclables each week.

**Functional Activity/Routine:**

- Have students determine two things they could change at home to help the Ecosystem.
- Have students to a trash pickup of the school grounds.
- Set up classroom recycling bins.

**Strategies to collect evidence:**

- Ecosystem quiz
- Creation of their booklet, selecting examples of how humans impact the ecosystem from a menu of choices.
- Data sheet for responses during partner and group lessons.

**Specific options for differentiating this activity:**

- Create a sort with *Good* for environment and *Bad* for environment on index cards and print pictures of examples and non-examples.
- Program voice output device with pictures for students to participate in the partner and group lesson.
- Choice board with pictures for students to sort.
- Switch activated button for students to respond to *Good* or *Bad*

**Resources:**

Abdullah, A. *Environmental Pollution Animation*, (June 3, 2012).  
<https://www.youtube.com/watch?v=tmhiglxga-4>

## Ecosystems Quiz

8S-ECO 7 (SOL LS.11) The student will investigate and understand the relationship between Ecosystems dynamics and human activity. Key concepts include e) environmental issues

1. Circle the picture that shows an environmental issue.



2. Glue the pictures under the effect of each type of water.

Clean Water

Dirty Water

3. Circle the picture that shows an environmental issue.



4. Glue the pictures below that demonstrate issues that are effected by different air qualities.

Good Air

Bad Air

5. Circle the picture that shows an environmental issue.



6. Glue the picture under the effect of different cleanliness of the land.

Dirty/littered land

Clean land

