

# Pollution in the Environment

*Lesson Plan for Grade 4-5, Science*

*Prepared by Let's Clean West NC*

## OVERVIEW & PURPOSE

Help students understand the impact pollution has on the environment through a demonstrative lab and discussion. Likewise, help students understand how they can help the environment in their everyday lives.

## EDUCATION STANDARDS

1. NC K-12 Curriculum EEn.2.8.4: Evaluate the concept of “reduce, reuse, recycle” in terms of impact on natural resources.
2. NC K-12 Curriculum EEn.2.7.3: Explain how human activities impact the biosphere.
3. NC K-12 Curriculum EEn.2.6.3: Analyze the impacts that human activities have on global climate change (such as burning hydrocarbons, greenhouse effect, and deforestation).

## OBJECTIVES

1. Understand the impact of pollution on the environment.
2. Discover ways to help the environment that reduces pollution.

## MATERIALS NEEDED

1. Colored Pasta
2. Attentive Students

## VERIFICATION

### *Steps to check for student understanding*

1. At the end of the activity, ask students their impressions after seeing how many people had colored pasta.
2. Ask students the best way they think there is to reduce the amount of pollution in the environment.
3. Ask students why the environment is important and needs to be protected.

## **ACTIVITY**

### *Describe activity that will reinforce the lesson*

#### **Modeling the Movement of Pollution Through Ecosystems**

After completing this activity, students will be able to describe the environmental impact of pollution on *all* living things and how pollution is transferred through ecosystems. The [instructions for this activity](#) suggest watching the accompanying video first. After which, students engage in a role-play acting game.

For the role play, you will need to create five groups of students: 1) humans; 2) plants; 3) fish; 4) plant-eating animals; and 5) fish-eating animals. The game takes place in a large circle which has been divided into two halves. The two halves represent land and sea. Finally, you will use colored pasta to represent pollutants such as exhaust, garbage, oil, and pesticides. The game proceeds with a series of interactions that demonstrate how pollution can be passed through the food chain and affect many species. Afterwards, engage in a discussion with students for how to best reduce the amount of pollution in the environment.