



MORRO BAY

NATIONAL ESTUARY PROGRAM

Hello educators,

Want to add an environmental twist to your STEAM lessons? The Morro Bay National Estuary program is reaching out to educators to offer our resources to you! Your class is about to get stinkin' smart, pun intended, about the negative effects of dog poop on the environment and what they can do to help. If you are located in Morro Bay or San Luis Obispo, you can schedule an Estuary Program staff member to teach one introductory lesson your students. Just make sure to schedule at least one month in advance. If you prefer to teach these lessons yourself, or if you are located outside of these two cities, you have all the materials you need to teach the lesson attached to this email!

** If you don't know anything about the subjects listed below or need to brush up, don't worry! Background information is included for all the lessons, so that you can teach it without doing a lot of research.*

What we offer:

Elementary school:

1. Dog poop pollution and you lesson:
 - a. A Estuary Program staff member can go into the classroom to teach this lesson. Please contact us a month ahead of time to schedule.
 - b. 1st – 5th grade

Information on the topic:

This lesson talks about the negative effects of dog poop on the environment and on humans through an interactive coloring book. There are three options in correlation to the coloring book, it's adaptable to various learning styles.

Versions:

1. *Coloring pages with a storyline, giving information on dog poop.*
2. *Coloring pages with no story line, lines are found at the bottom to give students freedom to write down what they think they are seeing.*
3. *Coloring pages with nothing else, so students can color the pages and then talk about the story in age-appropriate terms.*

An additional, poop scavenger hunt activity is also in the lesson if you want to get your students moving!

2. Dog Poop survey
 - a. 5th- 8th grade
 - b. Materials for this are attached to this email

Information on the topic:

This is a great add-on to our "Dog pollution and you lesson" because they would already have background knowledge on the environmental impact dog poop has. Students will be able to experience what scientists do to acquire data to support their hypothesis. This is a great activity to introduce the concept of research and critical thinking to kids. Groups of students will follow a protocol as they strategically look for dog poop in a local area. Making a hypothesis of how much they will find in an area. This can be repeated throughout the year to show students a possible fluctuation in dog poop found. From there making a hypothesis of why the amount changes.



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3. Watershed model
 - a. A Estuary Program staff member can go into the classroom to give this lesson
 - i. Please contact us a month ahead of time to schedule.
 - b. K- 3rd grade

Information on the topic:

This is an interactive lesson where students visually see how human actions can pollute our watershed. We use a watershed model to explain that everything we do on land effects the water. Koolaid and various other condiments are used to model common human actions and students are given spray bottles to imitate rain. Students see that rain carries everything from land to water. At the end students will understand what a watershed is and what we can do to help it stay clean!

Middle school:

1. Dog Poop Pollution and You lesson (older-kid addition):
 - a. An Estuary Program staff member can give this lesson to your students. Please contact us a month ahead of time to schedule the classroom visit.
 - b. 5th–8th grade students
 - c. Materials for this are attached to this email

Information on the topic:

This lesson talks about the negative effects of dog poop on the environment and on humans. It goes through explaining why dog poop is so bad for the environment and what we can do to make a difference, such as doing water quality analysis to track the health of our local bodies of water. There are activities that collaborate with the lesson to have more an interactive approach with the students.

2. Dog Poop survey protocol
 - a. 5th–8th grade students (could be adapted for younger students)
 - b. Materials for this are attached to this email

Information on the topic:

This is a great add-on to our Dog Poop Pollution and You lesson because they would already have background knowledge on the environmental impact dog poop has. Students will be able to experience what scientists do to acquire data to support their hypothesis. This is a great activity to introduce the concept of research and critical thinking to kids. Groups of students will follow a protocol as they strategically look for dog poop in a local area. Making a hypothesis of how much they will find in an area. This can be repeated throughout the year to show students a possible fluctuation in dog poop found. From there making a hypothesis of why the amount changes.

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