



# FOLLOW THE POO

- ◆ Grade Level: 3rd-4th
- ◆ Time: 25 minutes

Students will watch *The Story of Poo* to take a close look at what should go down the toilet and what shouldn't. Students will have the opportunity to access prior knowledge/experiences and then build on what they have learned from the video. An interactive game will give students the opportunity to follow our poo, pee, or paper through San Francisco's sewer system, and find out where it ends up!

## OBJECTIVES

Through this video and activity students will:

1. Develop a basic understanding of San Francisco's sewer system
2. Connect to the impact we have on our city's infrastructure

## MATERIALS

- ◆ Technology to show *The Story of Poo* video to class
- ◆ A space to write a large concept map (giant sticky or white board)
- ◆ One game board per 2-3 students
- ◆ Scissors
- ◆ One die per 2-3 students

## BACKGROUND FOR EDUCATORS

*The Story of Poo* answers the question of what happens after we flush the toilet in San Francisco. We meet a young inquisitive San Francisco student who leads us through the ins and outs of our city's sewer system and treatment facilities. Together we build our knowledge and understanding of what our sewer system does and how it impacts our lives and the local environment.

This concise and engaging video supports students' learning about how engineering helps keep our local environment healthy.

## EDUCATOR PREP

- ◆ Have access to a computer and a way to show the 5-minute video to your class.  
<https://www.calacademy.org/educators/the-story-of-poo>
- ◆ Prepare a concept map for the class on a large sticky or white board with *Sewer System* written in the middle.
- ◆ Prepare a game board and a die for each 2-3 students.





## INTRODUCTION

1. Introduce the concept map to the class. Tell them that you will be focusing on the *Sewer System*.
2. Ask students to share out any thoughts or prior knowledge on the sewer system that they may have.
  - ◆ *What do we know about the sewer? What should go down the toilet? Where does it go? Why is the sewer system important to our city?*
3. On the concept map, scribe what students share out.
4. Watch *The Story of Poo*.
5. After the video, have students talk to a partner about what they noticed.
6. Have students share out new understandings and observations. Record students' new contributions to the concept map.
  - ◆ *What did you learn after watching The Story of Poo? Did anything surprise you?*

**To further the discussion**, prompt students to think about or discuss...  
 How does our sewer system help people? (*keeping our city clean; capturing energy from the digester; sending the biosolids to farms*)  
 How does our sewer system help the environment? (*collects trash; puts nutrients back into the soil; captures the methane before it is released into the atmosphere*)

## CHECK FOR UNDERSTANDING: POOPS AND LADDERS

1. Introduce the game, telling students that they will be going on a journey through the sewer systems of San Francisco.
2. Students will work in groups of 2-3 with one game board and one die.
  - a. They will choose a game piece to mark their way on the game board:  
(*This can be cut from the bottom of the game board*)



3. Model rolling the dice and moving the game piece along the board. Some squares have instructions and some do not.
4. Students will play until they have completed their journey through the sewer system and have become a biosolid!

## WRAP-UP

Bring students back together to discuss:

*What did you notice as you followed your item through the sewer system?  
 What made your journey harder/easier?*

Add new thoughts and notices to the class concept map.







## 's MODIFICATIONS

- ◆ Scale Down: the game can be played as a whole class or done as a small group activity
- ◆ Scale Up: the class can "Adopt a Drain" through SFPUC near their school
  - ◆ <https://sfwater.org/index.aspx?page=1184>

## NEXT GENERATION SCIENCE STANDARDS

### Disciplinary Core Ideas

#### ESS3.C: Human Impacts on Earth Systems

- ◆ Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.

#### K-ESS3-3: Earth and Human Activity

- ◆ Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

### Cross-Cutting Concepts

#### Cause and Effect

- ◆ Events have causes that generate observable patterns.

## SAN FRANCISCO PUBLIC UTILITIES COMMISSION

### Big Idea 4 (K-2)

- ◆ Sewer systems have to clean dirty water from buildings as well as streets, so it is important to be careful about what we put down toilets and drains, and keep trash off our streets.

