



THE 3 Ps

- ◆ Grade Level: K-2nd
- ◆ Time: 20 minutes

Students will watch *The Story of Poo* and take a closer 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 in the video.

OBJECTIVES

Through this video and activity students will:

1. Learn the importance of the 3 Ps
2. Develop a basic understanding of San Francisco's sewer system infrastructure

MATERIALS

- ◆ Technology to show *The Story of Poo* video to class
- ◆ A space to write a large K-W-L chart (giant sticky or white board)
- ◆ One worksheet per student
- ◆ One paperclip per student
- ◆ One pencil per student

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 learn what should go in the toilet, and what shouldn't.

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 K-W-L chart for the class.
- ◆ Print **one 3 Ps** worksheet per student.
- ◆ Prepare **one paper clip** and **one pencil** per student.

KNOW	WONDER	LEARN





Optional Pre Activity

- ◆ Have students watch the video straight through.
- ◆ *Talk to a partner about what you notice or wonder.*

INTRODUCTION

1. Introduce the K-W-L chart to the class, but tell them you will only be focusing on the **Know** part right now. Record what the students share out.
 - ◆ *What do we know about sewer systems?*
 - ◆ *What should go down the toilet?*
 - ◆ *Where does it go?*
2. Start the video.
 - ◆ After the 3 Ps are introduced, pause the video and remind the class of what the 3 Ps are.
3. Allow students to share what they **Wonder** as you add these thoughts to the KWL chart.
 - ◆ *I wonder why we should only put those 3 things down the toilet...?*
 - ◆ *I wonder where it all goes...?*
4. Continue watching the video.
5. When the video is over-
 - ◆ Record students contributions to the **Learn** part of the chart.
 - ◆ *What did you learn after watching The Story of Poo?*
 - ◆ *How does this system help our environment?*

To further the discussion, prompt students to think about or discuss...

6. How does our sewer system help people? (*sanitation, keeping the city clean; cleans our dirty water so it can be reused to water our parks*)
7. How does our sewer system help the environment? (*takes the trash out, so it does not go out into the bay or ocean*)

CHECK FOR UNDERSTANDING: SPIN THE WHEEL!

1. Introduce the worksheet and the supplies needed (pencil and paperclip).
2. Model how to use the pencil to spin the paperclip in the middle of the toilet bowl.
3. Spin the paperclip.
4. When it stops, read the word aloud, and decide if that item goes into the toilet or not.
5. Then write the word in the corresponding column on the other half of the sheet.
6. Continue spinning until both columns are full.





WRAP-UP

- ◆ Bring students back together.
- ◆ Revisit the KWL chart.
 - ◆ Point out any growth in knowledge stemming from the Wonder portion.
 - ◆ *Are there any unanswered questions?*
 - ◆ *How can we find the answers to them?*
- ◆ Read the Pledge at the bottom of the page.
 - ◆ Have the students in the class write their names.

MODIFICATIONS

- ◆ Scale Down: worksheet can be done as a whole class/small group activity.
- ◆ Scale Up: focus in on the Wonder and Learn portion of the chart and do some more investigating.

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.

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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.

