



Course Name	<b>STEM</b>
Grade Level	3 <sup>rd</sup> -5 <sup>th</sup>
Lesson Author	Larissa Whitney, Lincoln Elementary School (Hays, Kansas)

Unit Title	Genius Hour Project-Based Learning
Lesson Title	Magic Stool Bus: Plumbing
Suggested Lesson Time	9-week unit (20- to 30-minute sessions)
Lesson Objectives	<ul style="list-style-type: none"> <li>Genius Hour engages students through inquiry, problem-solving and self-evaluation.</li> </ul> <p>[Objectives for each Genius Hour lesson—see Materials]</p>

<b>Instructor Preparation</b>	
<b>References</b>	
<ul style="list-style-type: none"> <li><a href="#">Genius Hour: Getting Started</a></li> <li><a href="#">HirePaths Cool Careers Video: Plumber</a></li> <li><i>The Great Stink: How Joseph Bazalgette Solved London’s Poop Pollution Problem</i> by Colleen Paeff</li> </ul>	
<b>Instructional Media</b>	
<ul style="list-style-type: none"> <li>Handouts from Genius Hour                             <ul style="list-style-type: none"> <li>Planning sheets, rubric, student journal (found in Materials section)</li> </ul> </li> </ul>	



**Equipment and Tools**

- Online researching tools (iPad, computer, etc.)
- Learning through observation or interviewing an expert
- Digital or print sources

**Materials**

- [Click here for Genius Hour Project on Teachers Pay Teachers](#)
- [KWL Chart](#)

**Student Preparation****Assignments**

- Student journal sized to fit the 8 x 8 books found in the Dollar Spot at Target (or staple the booklet together)
- Develop a research plan
- Map out an action plan
- Notes on how to implement the plan
- Weekly reflections



**Introduction**

To kickstart the unit, explain to students they'll join you in an inquiry. Ask prompts including: How does a toilet work? What happens when it's not working properly?

Distribute a KWL Chart [[Grab one Here](#)] and ask students to fill in what they KNOW about how plumbing works, then what they WANT to know.

Share the HirePaths Cool Career Video [found in the reference section]

After the video, students may fill in the LEARNED section of the KWL Chart.

**Information Presentation**

<i>Information</i>	<i>Key Points</i>
<ul style="list-style-type: none"> <li>● Read <i>The Great Stink: How Joseph Bazalgette Solved London's Poop Pollution Problem</i> by Colleen Paeff</li> <li>● Ask a local plumber to visit the class. Use the "WANT to know" section of the KWL chart for Q&amp;A. Then fill in more on the LEARNED section of the KWL chart.</li> </ul>	<ul style="list-style-type: none"> <li>● Focus on problems and solutions</li> <li>● Career connections</li> </ul>



### Summary

Now that you have the students' attention, it's time to begin their very own Genius Hour project! [Genius Hour Project found in the materials section]

### Student Activities

Written documentation as students plan, research and reflect in their "Genius Hour Journal"

Genius Hour will look different for each student. Some might find it helpful to interview an expert, others might visit the library for a resource with an answer to their inquiry, etc.

### Student Assessment

During the Introduction, students will show their understanding of plumbing by using the KWL chart.

Throughout the unit, students will complete weekly self-evaluations using the Genius Hour Journal.

At the conclusion of the unit, students could present their genius hour project for the class. [Poster, slideshow, video, etc.]

