

# HISI - Lesson Outline

Module Title Let's Talk Trash

LS Team A.Crosswhite, N. Kiser, O. Tomlin, B.

Russ \_\_\_\_\_ Grade level: 5

Lesson # 1 Title: What is Waste?	Number of Minutes: 75 minutes
<p>Mathematical purpose: To interpret and analyze data about trash and model with math. To classify and categorize waste to set up table for data collection</p>	<p>Scientific Purpose: Reduce human impact on our school, home, and community. Understand the difference between waste(recyclable) and trash (non-recyclable)</p>
<p>Materials needed: Trash from specific area of the school(cafeteria trash cans) that will be measured Paper to create lists/table Pencil Trash can to throw away trash Bags to sort waste</p>	<p>Academic vocabulary: Reduce Reuse Recycle Categorize Classify Trash Waste</p>
<p>Common Core Standards (copy and paste):  <a href="#">CCSS.Math.Content.5.NBT.A.3</a> <b>Read, write, and compare decimals to thousandths</b>  <b>Represent and interpret data.</b> <a href="#">CCSS.Math.Content.5.MD.B.2</a>  <b>Graph points on the coordinate plane to solve real-world and mathematical problems.</b> CCSS.Math.Content.5.G.A.2</p>	<p>Next Generation Science Standards (copy and paste):  (5-PS1-1) Planning and Carrying Out Investigations to answer questions or test solutions to problems.  (5-PS1-3) Using Mathematics and Computational Thinking in 3–5 builds on K–2 experiences and progresses to extending quantitative measurements to a variety of physical properties and using computation and mathematics to analyze data and compare alternative design solutions. Measure and graph quantities such as weight to address scientific and engineering questions and problems.</p>

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<p>When students are finished they will understand:          Students will be able to understand the difference between waste and trash/recyclables and non recyclables-categorize and classify          They will see their impact on the amount of trash that they create and then apply it to the world's problem with trash          They will weigh trash and see an amount created to track as data          Students will understand the table and how the categories correspond          Students will connect the world problem to their school problem of trash overproduction</p>	<p>What are teacher questions or prompts?           What is garbage? Why does garbage last so long? Where is the garbage going to go?          How do you categorize garbage and why do you need to categorize garbage?</p>
<p>What are questions you anticipate students will have?           Why does the line go down? Why does the line go up?           Why did the trash stay the same?</p>	<p>What are misconceptions students might have?           They will think that waste less than they do.</p>
<p>General outline of the lesson:          Hook          Introduction of the focus for the day/recording sheet</p> <p>Weigh trash-          Predictions</p>	

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Analyzing the data collected  
Discussion on increase/decrease of waste off of table  
Plot data  
Look for trend  
Compare data from week 1/week 2 off of line graph  
Conclusion

Supplemental files/resources will follow