

Lesson Title: The Spaghetti Incident	
Estimated Lesson Time: Half of a class period / extra-curricular session (~ 25-30 minutes).	
Overview & Purpose: Students will practice nonverbal communication and teamwork skills in a problem solving activity.	
Standards: Idaho Core Standards and Next Generation Science Standards (NGSS) relevant to the lesson. Idaho Core, SL.6.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on topics, texts, and issues, building on other’s ideas and expressing their own clearly. Idaho Core, WHST.6-8.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	
Goals and Objectives:	<p>Students will be able to engage in effective nonverbal communication and collaboration behaviors.</p> <p>Students will be able to discuss and evaluate the importance of these behaviors to teamwork.</p>
Assessment:	<p><i>Formative</i> - Monitor student discussion and participation to ensure comprehension..</p> <p><i>Summative</i> - Review lab notebooks for understanding of the importance of communication and collaboration in group work.</p>

Needed Materials:	<ul style="list-style-type: none"> • 12 dry spaghetti noodles (including extras to replace broken noodles) • 6 gumdrops • Small bag of miniature marshmallows • Meter stick • Idaho TECH Lab Notebook
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Teacher preparation requirements: In addition to this lesson plan, review the materials in the Teacher and Student activity books. Prepare laboratory stations with listed materials.

Student configuration: As team size dictates, the activity can either be done in small groups or as a whole-team activity.

<u>Lesson Procedures</u>	<u>Procedure Description</u>	<u>Estimated Time</u>
1. Introduction to Lesson	Inform students that they will be engaging in a teamwork activity that will concentrate on the use of nonverbal communication and collaboration. Prompt students to consider how they can communicate without speaking, and to think of tasks that groups often perform collaboratively without having to speak.	5 minutes.
2. Instructions and Setup	Instruct students read the activity instructions from the student activity book. Emphasize to students that they should <u>NOT</u> talk during the activity at all, and will need to communicate with their team nonverbally. Have students move to laboratory stations, and distribute materials. Before starting the activity, have students inventory their materials.	5-10 minutes
3. Proceed with Activity	Release students to begin constructing their towers. Reiterate to students that they should NOT talk during the activity at all, and will need to communicate with their team nonverbally. Prompt students once 5 minutes are remaining, and again once 2 minutes remain.	10 minutes.

<p>Summary & Evaluation</p> <p>Debriefing.</p>	<p>Have students to measure the height of their towers, and instruct them to write down the height in their lab notebook. Lead students in a brief whole class discussion about the activity, prompting them to consider the influence of exclusively nonverbal communication on their success, as well as its influence on team member participation. Have students write a sentence in their lab notebooks describing one suggestion for how the team could enhance its nonverbal communication.</p>	<p>5-10 minutes.</p>
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References and Resources:

Idaho Core Standards - <http://www.sde.idaho.gov/site/common/>

Next Generation Science Standards (NGSS) – <http://www.nextgenscience.org/next-generation-science-standards>

Idaho TECH website – http://ed.isu.edu/Idaho_TECH/index.shtml

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