

Lesson Title: Copy Cat	
Estimated Lesson Time: One class period / extra-curricular session (~ 50-60 minutes).	
Overview & Purpose: Students will practice and develop clear and concise communication skills among their teams.	
Standards: Idaho Core Standards and Next Generation Science Standards (NGSS) relevant to the lesson.	
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.	
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.	
Goals and Objectives:	<p>Students will be able to clear and concisely communicate to other teammates how to arrange paper cut-out shapes into a design.</p> <p>Students will be able to clarify and execute the instructions given by other teammates.</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 effective communication practices.</p>

Needed Materials:	<ul style="list-style-type: none"> • 1 set of Copy Cat Shaper per team member (6 sets per workbook) • Scissors for each student • 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.

Student configuration: Students will work in pairs for rounds 1 and 2 of the activity. As team size dictates, round 3 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 practicing their communication skills. Assign students into pairs, and distribute materials. Review the student activity book, and reiterate the instructions.	5 minutes.
2. Activity Preparation	Have students setup around the room, and instruct pairs to arrange their desks back-to-back. Distribute materials. Allow students time to cut out shapes and dispose of trash. Instruct students to designate an initial “builder” and “explainer” within their pairs.	5-10 minutes.

3. Round 1	<p>Inform students that they will first engage in <u>one-way communication</u>. Emphasize that only the explainer should speak, and that the builder should NOT speak during this round. Remind students not to look at each other's desks.</p> <p>Instruct all explainers to create an initial design, and then describe it for the builder to replicate. Remind students that only the explainer should talk. Prompt pairs after 5-7 minutes to compare the similarity of their designs.</p> <p>Instruct students to switch roles within their pair, with the new explainer creating a design, and then describing it for the new builder to replicate. Remind students that only the explainer should talk. Prompt pairs after 5-7 minutes to compare the similarity of their designs.</p>	10-15 minutes.
4. Round 2	<p>Inform students that they will now engage in <u>two-way communication</u>. Emphasize that now both roles can speak, and that the builder should clarify the explainer's instructions. Remind students not to look at each other's desks.</p> <p>Instruct all explainers to create an initial design, and then describe it for the builder to replicate. Remind students that the builder should clarify the explainer's instructions. Prompt pairs after 5-7 minutes to compare the similarity of their designs.</p> <p>Instruct students to switch roles within their pair, with the new explainer creating a design, and then describing it for the new builder to replicate. Remind students that the builder should clarify the explainer's instructions. Prompt pairs after 5-7 minutes to compare the similarity of their designs.</p>	10-15 minutes.

5. Round 3	<p>Designate (or have students nominate) one student to be an explainer, with all other students working as builders. Remind students not to look at each other's desks.</p> <p>Inform students they will first use <u>one-way communication</u>. Instruct the explainer to create an initial design, and then describe it for the builders to replicate. Remind students that only the explainer should talk. Prompt students after 5-7 minutes to compare the similarity of their designs</p> <p>Inform students they will now use <u>two-way communication</u>. Remind students that now both roles can speak, and that the builders should clarify the explainer's instructions. Prompt students after 5-7 minutes to compare the similarity of their designs.</p>	10-15 minutes.
<p>Summary & Evaluation</p> <p>Debriefing</p>	<p>Lead students in a brief whole class discussion to consider how effective their communication was. Prompt students to consider: (1) whether they found one-way or two-way communication more effective; (2) whether they found working in pairs or with a group of builders to be more effective; and (3) what they have learned about effective communication and teamwork. Have students write a short sentence in their lab notebooks addressing each of these prompts.</p>	5-10 minutes.

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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