

The Spaghetti Incident

Teacher Version

Adapted from a lesson entitled "Lesson Plan 2: Developing Successful Teamwork Skills" at the LessonPlansPage.com - www.lessonplanspage.com/ScienceSSMars2DevTeamworkSkills56.htm

Introduction & Purpose

This activity will demonstrate how well your students work together as a team, especially in terms of communication. The students will work as a team to build a tower as tall as possible with only the materials listed below and without speaking to each other. This exercise will demonstrate to your students that good communication is essential in order to function together as a team successfully. They should also realize that they could work more efficiently if team members each take on a separate role (although these roles certainly do not need to be permanent). This activity can be repeated several times, so students have the opportunity to improve upon their tower height and their teamwork skills.

Objective

Students will work as a team without speaking to build the tallest possible tower out of a limited supply of common materials. Students will discuss the importance of communication within a team and analyze their strengths and weaknesses as a team.

Materials Needed:

- 12 pieces of dry spaghetti noodles
(have a few extra in case some break)
- 6 gumdrops
- Small bag of miniature marshmallows
- A meter stick
- A pen or pencil
- Idaho TECH Lab Notebook



Procedure:

Complete directions for this activity are included in the student copy of the Activity Book.

1. Before allowing your team to begin tower construction, have them read over the directions.
2. Do not allow the students to discuss any aspects of how they will build the tower.
3. Remember that the students cannot talk while building the spaghetti / gumdrop / marshmallow tower.
4. Warn them that each time someone breaks the no-talking rule, you will confiscate one of their gumdrops. Set a time limit for tower construction – most often, ten minutes is sufficient.
5. Once everyone understands the rules, let them begin to build.
6. Once time is up, have the students measure the height of their tower and record it in their Lab Notebook.
7. Lead the team in a group discussion about how they went about building their tower. Try to direct the group discussion toward recognizing non-verbal communication skills, and assignment of members to specific tasks, or "roles." Have the students write some ideas about how they built their tower, especially in terms of teamwork skills, in their Idaho TECH Lab Notebook.

- What was most difficult about building the tower?
 - What impact did not being able to speak have on your success?
 - Did all team members participate equally?
 - Did everyone do the same sort of thing?
8. After the students have recorded their ideas, lead another discussion about how they could have worked as a team more effectively. Have them write some ideas regarding these questions in their Idaho TECH Lab Notebook as well.
- What could your team have done differently?
 - How do you think these different ideas would have affected the height of the tower?

Hints / Suggestions:

- You can allow students to break up the spaghetti, gumdrops, or marshmallows to enable the team to have more building pieces.
- Remember, there is **NO TALKING** during the **ENTIRE** building section of the activity - - if this rule is not followed, take away one entire gumdrop each time a student speaks.
- This activity can be repeated a few times during the year. If you complete this activity again, make sure to have the students review their notes about how they built their tower the time before, and what they thought they could do better after they built it. Challenge them to work together even more efficiently than the last time, and to break their previous tower height record.

