

# TEAMWORK SKILLS

## Description

This activity introduces students to important teamwork and problem-solving skills and tools to use when practicing those skills.

## Student Outcomes

Students will:

- Identify the relationship between specific teamwork skills and team success.
- Distinguish verbal and non-verbal behaviors that contribute toward teamwork.
- Participate in a team-building activity.

## Student Products

- *Teamwork Skills Analysis T-chart*
- *Teamwork Skills Practice Guide*

## Prerequisites

None



## Activity Timing

Time Estimate	One 50-minute Class Periods
20 min	Prep Time: photocopying; organizing materials
Day 1	Overview of Skills, T-chart, Team-building Activity



## Materials

- Hydroville Journal

### Team-building Activity 1: Paper Tower (per group of 4-6 students)

- Four large textbooks or binders
- 20 sheets of 8½" x 11" paper
- Six feet of masking tape

### Team-building Activity 2: Toxic Popcorn (per group of 4-6 students)

- Masking tape for ten-foot diameter circle
- Two 1 lb coffee cans, one half filled with popcorn
- Three pieces of rope each 7 feet long
- One bicycle inner tube

## Teacher Information

The Hydroville activities require students to emulate real-life situations by working in teams. Working together and communicating effectively are important for student success in each of the background activities, the Environmental Solutions (ES) team meetings, and the final presentations. This section offers tools and activities to develop and practice teamwork skills.

Problems faced by communities, businesses, schools, and other institutions are seldom solved by people working alone. Teams of colleagues, often with very different values and points of view, must work together to develop and complete plans of action. Their success depends on each one's ability to work well with others. Good teamwork skills are not innate—they must be taught, often even to adults.

This activity is designed as part of the Background Activity 1: *Welcome to Hydroville*. Several cooperative skills have been selected for emphasis in the background activities (see Table 1).

The models presented are adaptations from the cooperative skills research of David W. Johnson, Roger T. Johnson, and Edythe Johnson. 1994. Holubec in *The New Circles of Learning: Cooperation in the Classroom and School*. Association for Supervision and Curriculum Development.

Table 1. Teamwork and Problem-solving Skills Emphasized in Hydroville Problems

Teamwork Skills	Problem-solving Skills
1. Stay on task with your group: Everyone contributes and helps.	1. Give and receive feedback in a positive manner.
2. Listen attentively to others.	2. Identify where there is disagreement within the group and work toward compromise or consensus.
3. Praise helpful actions or good ideas.	3. Work with others to develop shared decisions and goals.
4. Ask teammates for help if you need it.	4. Ask for justification for team member's conclusion or answer.
5. Check to make sure that everyone understands.	
6. Work to manage conflict within the group.	

When a student first practices a new skill, she or he experiences an awkward, self-conscious stage. Students may feel a degree of phoniness as they try to do or say phrases on purpose. Assure students that this is a natural process as they transition from forced, mechanical use of the skill to automatic and routine use of the skill. The teacher's active listening and monitoring for use of cooperative skills will encourage the students to keep trying.



### Tips from Teachers:

- Occasionally only one or two teams need help with specific cooperative skills. In these cases, teachers act as a coach, helping students identify a useful skill and its importance, and the verbal and non-verbal behaviors that portray that skill.
- Designate defined roles such as starter, summarizer, recorder, technician, etc., and either select a student to fill each role or allow the teams to assign roles to their own members. This can be an opportunity for students with special talents, organizational skills, or learning styles to be recognized for their value to teams.



### Suggested Lesson Plan

#### Getting Started

1. Introduce the Teamwork Skills activity before or during Background Activity 1: *Welcome to Hydroville*. The students should be in their Environmental Solutions Teams.
2. Make a wall poster of the transparency *Teamwork and Problem-solving Skills Emphasized in Hydroville Problems* (TM-2). Emphasize that each team is working toward proficiency in all these skills.
3. Throughout this curriculum, emphasize key teamwork skills that students need to practice, observing them using the *Teamwork Skills Practice Guide* (WS-2), and then debriefing what you observed with the class.

#### Doing the Activity

##### 1. Assign **Journal Prompt-1 (TM-1)**:

- a. Think about your or your parents' work environment. Do people work alone or in a group or team?  
*Today a person working alone rarely solves problems in communities, businesses, academic research, and most other social structures. Teams of colleagues, often with very different values and points of view, must work together to agree on and complete plans of action. Your success in a job will often be determined by how well you work with others.*
- b. Are laws or regulations that govern society made by one person or a group of people?  
*A group of people.*
- c. How do you know how to work in a group? Are you born with this skill, or do you have to learn it?  
*Not necessarily, the skills necessary for team success must be learned.*
- d. Name an example of a team or group for each category:
  - Sports
  - Community
  - Government

2. Since teamwork is critical to be successful in almost any job, we will be practicing these skills throughout our time in Hydroville.

Water Quality  
Teamwork Skills

3. Show transparency *Teamwork and Problem-solving Skills Emphasized in Hydroville Problems* (TM-2).
  - a. Emphasize that this is the list of teamwork and problem-solving skills that students will need to successfully complete this Hydroville unit. *You will be working in all sorts of teams. You will be graded on your ability to work together to solve a problem.*
  - b. Stress the importance of each of these skills to the success of the teams in solving the indoor air quality problem. This chart can be enlarged and posted in the classroom as a reference and reminder for the students throughout the curriculum.
4. Put up the *Teamwork Skills Analysis T-chart* transparency (TM-3).  
*For the skill being practiced, we will develop a Teamwork Skills Analysis chart, called a T-chart that you will keep in your Hydroville Journal.*
5. Explain that students will fill in the T-chart when they are introduced to a teamwork skill for the first time. Each T-chart is kept in their Hydroville Journal for reference when that skill is being assessed.
6. Using the T-chart transparency, practice one skill together as a class.
  - a. Hand out the T-chart as a worksheet or refer students to the copy in their Hydroville Journals.
  - b. Have each student complete the worksheet and file it in the teamwork section of the Hydroville Journal.
  - c. The following example will help the students in filling in their T-chart as you go through the steps.
  - d. Name the skill to be analyzed; for example, *“Listen attentively to others.”*
  - e. Have the students analyze and list ways the skill is important to the success of the team. This list could be divided into two sections: one listing how the skill can lead to a successful product for the team, and the other listing how the skill is important to the feelings the team members develop about each other and themselves.
  - f. Stress the importance of both product (outcome) and process (feelings) to the team’s success:  
*(Product) In a team, everyone’s ideas are important to the success of the team. Successful solutions often happen when you build on the ideas of others.*  
*(Process) When everyone listens carefully to your ideas, you feel like a valuable member of the team and are more willing to work hard and participate.*
  - g. Have students brainstorm specific verbal and non-verbal (body-language) behaviors that they can use to practice this skill, and list them on each half of the T-chart. It is important that they devise short descriptions or phrases to describe the behavior, such as the examples given in Table 2.

Table 2. Verbal and Non-verbal Team Skills

Verbal (Sounds Like)	Non-verbal (Looks Like)
<ul style="list-style-type: none"> <li>• Only one person is talking</li> <li>• Other members ask questions of the person speaking</li> </ul>	<ul style="list-style-type: none"> <li>• Members are looking at the person speaking</li> <li>• Members aren't talking with others in other groups</li> <li>• Members are taking notes</li> </ul>

7. Time often doesn't allow the class to produce a T-chart for each skill during the activities. Instead, assign teams one or two specific skills and have the team make T-chart posters for those skills. Place the posters around the room for quick reference and emphasis.
8. Prior to assigning the team-building activity, go over the *Teamwork Skills Practice Guide* (WS-2) and give students their copies for their Hydroville Journals.  
*This is the scoring guide that I will use or that team member observers will use to evaluate how a team is doing on a specific skill.*
9. Assign one of the team-building activities found on the transparencies:
  - a. Activity 1: *Paper Tower* (TM-4), Activity time with testing is 20-30 minutes.
  - b. Activity 2: *Toxic Popcorn* (TM-5 and WS-3), Activity time with testing is 60 minutes.
10. During the team-building and background activities, note examples of skills displayed using the *Teamwork Skills Practice Guide* (WS-2). Then share these examples during the wrap-up of the activity. It is interesting to observe how all groups tend to take ownership for the positive skill usage.
11. During the team meetings, one member of the team can use the *Teamwork Skills Practice Guide* to observe, tally, and share the other members' skill usage. In this case, give students these directions:
  - a. A member of your team serves as the observer. The observer does the following:
    - Watches and listens to the other team members as they work on tasks and discuss ideas.
    - Listens but does not participate in any tasks.
    - Analyzes and records the teamwork behaviors on the Practice Guide using the T-chart to help with the analysis.
  - b. Your team may want to select an alternate observer to record behaviors during the second half of the activity.
  - c. When the task is completed, the observer(s) should review their results with the team members. Focus on positive uses of skills. No putdowns!
  - d. Each team member completes the rating row on the *Practice Guide*.
  - e. As a team, discuss how the skill helped you and write a teamwork skill goal for the future.

***Wrap-up***

1. Debrief by sharing classroom observations of verbal and non-verbal skills and the results of the *Teamwork Skills Practice Guide*.
2. Allow the students to comment and reflect in their Hydroville Journals on their experiences working together as a team.
3. Highlight and revisit the teamwork skills frequently during the Hydroville activities. Students need to understand that teamwork skills are an integral component of the activities, and repeated use and review will remind them of their importance.



**Tips from Teachers:**

- Recognize and reinforce positive verbal and non-verbal behaviors rather than negative.



## PAGES TO PHOTOCOPY

**Note:** For ease of photocopying, transparency masters appear first in the student pages.

### Handouts and Transparency Masters

Day	What is Needed	Type*
1	<i>Journal Prompt- 1</i>	TM-1
	<i>Teamwork and Problem-solving Skills Emphasized in Hydroville Problems</i>	TM-2
	<i>Teamwork Skills Analysis T-chart</i>	TM-3, WS-1
	<i>Teamwork Skills Practice Guide</i>	WS-2
	Team-building Activity 1: <i>Paper Tower</i>	TM-4
	Team-building Activity 2: <i>Toxic Popcorn</i>	TM-5
	Instructions for <i>Toxic Popcorn</i>	WS-3

\* Type = Transparency Master (TM), Background Reading (BR), Worksheet (WS), Map (M)

## JOURNAL PROMPT-1

- 1. Think about your or your parents' work environment. Do people work alone or in a group or team?**
- 2. Are laws or regulations that govern society made by one person or a group of people?**
- 3. How do you know how to work in a group? Are you born with this skill, or do you have to learn it?**
- 4. Name an example of a team or group for each category:**
  - a. Sports**
  - b. Community**
  - c. Government**



## **TEAMWORK AND PROBLEM-SOLVING SKILLS EMPHASIZED IN HYDROVILLE PROBLEMS**

<b>Teamwork Skills</b>
<b>1. Stay on task with your group: Everyone contributes and helps.</b>
<b>2. Listen attentively to others.</b>
<b>3. Praise helpful actions or good ideas.</b>
<b>4. Ask teammates for help if you need it.</b>
<b>5. Check to make sure that everyone understands.</b>
<b>6. Work to manage conflict within the group.</b>

<b>Problem-Solving Skills</b>
<b>1. Give and receive feedback in a positive manner.</b>
<b>2. Identify where there is disagreement within the group and work toward compromise or consensus.</b>
<b>3. Work with others to develop shared decisions and goals.</b>
<b>4. Ask for justification for team member's conclusion or answer.</b>

## TEAMWORK SKILLS ANALYSIS T-CHART

**1. Skill:**

**2. Importance to:**

**a. Team's success in completing team task/product:**

**b. Team members' feelings:**

Verbal (Sounds Like)	Non-verbal (Looks Like)

## TEAM-BUILDING ACTIVITY 1

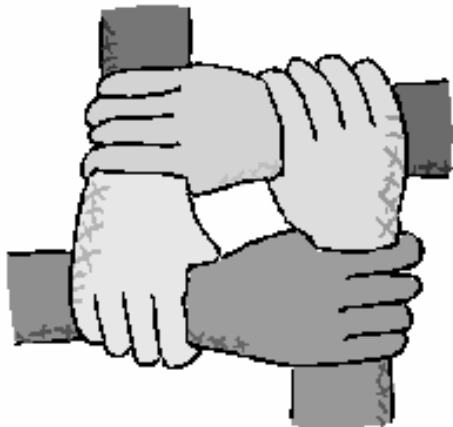
# Paper Tower

### Instructions:

Each team uses 20 sheets of paper and six feet of masking tape to build a tower that will support at least four textbooks.

(The best tower will use the least materials and support the most textbooks.)

1. As a team design your tower.
2. Show your plan to your teacher to obtain your tower materials.
3. You have 15 minutes.



**T**ogether  
**E**veryone  
**A**chieves  
**M**ore

## TEAM-BUILDING ACTIVITY 2

# Toxic Popcorn

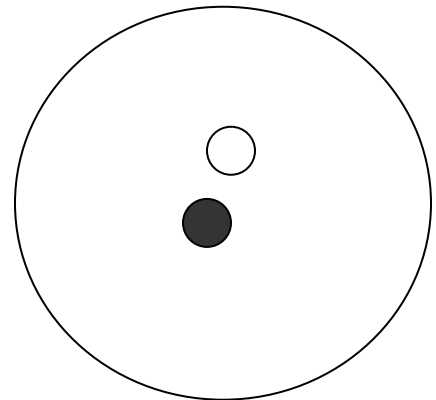
### Objective:

Transfer the toxic popcorn from the unsafe can to the safe can, using only the materials provided to you.

**Diameter of circle = 10 feet**

**Safe can** ○

**Unsafe can** ●



### Materials:

- Three pieces of rope
- Inner tube

### Rules:

See instructions on Worksheet 3.



## WORKSHEET 1: TEAMWORK SKILLS ANALYSIS T-CHART

1. Skill:

2. Importance to:

a. Team's success in completing team task/product:

b. Team members' feelings:

Verbal (Sounds Like)	Non-verbal (Looks Like)

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## WORKSHEET 2: TEAMWORK SKILLS PRACTICE GUIDE - DIRECTIONS

### Instructions

1. Before you begin the Background Activity, *work together* to do the following:
2. Write the teamwork skill you will practice today on the *Teamwork Skills Practice Guide*.
3. Write a sentence that describes how the use of this skill can benefit your team members and help you accomplish your tasks.
4. Briefly examine the T-chart for this skill to refresh your understanding of verbal and non-verbal behaviors that demonstrate the skill you are practicing.
5. A member of your team should serve as the *observer*. The observer should watch and listen to the other team members as they work on tasks and discuss ideas. While they are listening, the observer does not participate in the team tasks. The observer must analyze what team members are doing and record the teamwork behaviors on the *Practice Guide*. The observer should use a T-chart of the skill to help with the analysis. Your team may want to select an alternate observer to record behaviors during the second half of the activity.
6. Before the end of the class period, or when the task is completed, each observer should review his or her results with team members. The observer should point out only examples of positive use of the skill—no putdowns!
7. After practicing the teamwork skill, each team member should complete the rating row on the bottom of the *Practice Guide*.
8. As a team, discuss how the skill helped you work together and write a teamwork skill goal for the future.



## TEAMWORK SKILLS PRACTICE GUIDE

**Observer(s):**

**Date:**

**Skill:**

**Importance to Team's Success:**

### Team Members

	Name:	Name:	Name:	Name:	Name:
<p><b>Demonstrates Skill:</b>                      Tally each time a team member is observed using the skill.</p>					
<p><b>Notes:</b>                      List one or two verbal or non-verbal behaviors each team member demonstrates.</p>					
<p><b>Rating:</b>                      Each team member should consider her or his tallies, notes, and experiences. Then check all ratings that apply to their use of the skill.</p>	<input type="checkbox"/> I need more practice  <input type="checkbox"/> I am improving  <input type="checkbox"/> I am pretty good at this  <input type="checkbox"/> I show excellent use of the skill	<input type="checkbox"/> I need more practice  <input type="checkbox"/> I am improving  <input type="checkbox"/> I am pretty good at this  <input type="checkbox"/> I show excellent use of the skill	<input type="checkbox"/> I need more practice  <input type="checkbox"/> I am improving  <input type="checkbox"/> I am pretty good at this  <input type="checkbox"/> I show excellent use of the skill	<input type="checkbox"/> I need more practice  <input type="checkbox"/> I am improving  <input type="checkbox"/> I am pretty good at this  <input type="checkbox"/> I show excellent use of the skill	<input type="checkbox"/> I need more practice  <input type="checkbox"/> I am improving  <input type="checkbox"/> I am pretty good at this  <input type="checkbox"/> I show excellent use of the skill

**Future Skill Goal:**



## WORKSHEET 3: TOXIC POPCORN

### Background

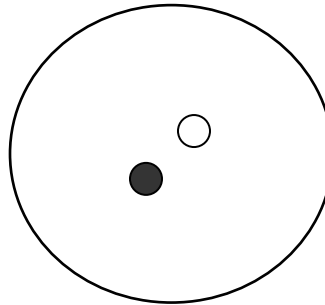
A can of highly toxic popcorn has contaminated a circle approximately 10 feet in diameter. The toxic area makes a cylinder that extends to the ceiling. If the poisonous popcorn is not transferred to a safe container for decontamination, the toxic popcorn will explode and destroy the population of the entire city. You do not have time to contact authorities and evacuate the city. The lives of thousands of people are in your hands, and you must act immediately.

Inside the circle you will find two cans. The unsafe can is about half full of the toxic popcorn. The safe can is to be used to neutralize the toxic popcorn.

Diameter of circle = 10 ft

Safe can ○

Unsafe can ●



### Objective

In 30 minutes or less, transfer the toxic popcorn from the unsafe can to the safe can using only the materials provided to you.

### Materials (per group of 4-6 students)

- Three pieces of rope (each 7 feet long)
- One bicycle inner tube

### Rules

- No participant may cross the plane of the circle with any part of the body. If this occurs, the person must be taken to the hospital immediately and may no longer participate. One member of the group, the designated Emergency Medical Technician (EMT) is responsible for the safety of all members and watches to make certain no one enters the circle. If a member crosses the line, the EMT must remove that member from the group.
- No participant may sacrifice himself or herself to aid in the transfer of popcorn.
- If any popcorn spills, it will explode, and the mission has failed.
- Participants may only use the materials provided. However, they can be used in any way desired.
- The popcorn will not spread its toxicity to the safe can, the ropes, or the tube. The participants have no protection inside the imaginary cylinder created by the 10-foot diameter circle.
- The safe container may move anywhere in or outside of the circle. The unsafe container must stay inside the circle and may not be moved more than one foot from the center of the circle.
- **Remember, the popcorn must be transferred within 30 minutes, or there will be a tremendous disaster.**

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