



South Carolina Academic/Career Development Integration Activity (DRAFT)

Title **Watershed Project (HS-2)**
Subject **Earth Science**

Grade Level(s) 9-12

SC Content Standard Earth Science - Standard ES-5. The student will demonstrate an understanding of the Earth's freshwater and ocean systems.

ES-5.8. Analyze environments to determine possible sources of water pollution (including industrial waste, agriculture, domestic waste, and transportation devices).

National Career Development Guidelines Goal/Indicator

Personal Social Development GOAL PS2. Develop positive interpersonal skills including respect for diversity.

Indicator PS2.A4. Demonstrate the ability to get along well with others and work effectively with them in groups.

Career Development Objectives

1. The student will participate in a team project to determine possible sources of water pollution in a local watershed.
2. The student will identify positive behaviors for working in a group.
3. The student will demonstrate positive behaviors while working in a group.

Assessment

1. The student will complete a project report, in accord with teacher specifications, that determines possible sources of water pollution in a local watershed and suggests remedies.
2. The student will complete the *Working in Groups: Self-Reflection* worksheet.
3. The student will demonstrate positive behaviors while working in a group. (Teacher observation.)

Preparation

- Prior Learning—Instruction on watersheds and water pollution
- Handouts/Worksheets—*Working in Groups: Self-Reflection* worksheet, *Ten Tips for Working in a Group* handout, project related handouts and worksheets
- Resources/Materials—websites for water pollution research and related resources, Note: The South Carolina Aquarium Online Curriculum: *Helping Watersheds* is an excellent teacher resource (www.scaquarium.org)
- Time Required—120 minutes plus outside project work and research

Procedures

Part One

- In this activity, students will work as a team to complete a project to determine possible sources of water pollution in a local watershed and suggest remedies. They will see how teamwork is an important employability skill they can use in almost any job. Note: This project can be expanded to involve students in planning and implementing a community project to help improve the water quality in a local watershed.
- Review with students the key points and terminology regarding water pollution including: non-point source pollution, point source pollution, watersheds and the key role they play in water quality, riparian zone, water as a universal solvent, and measuring water quality.
- Review with students the instructions for the project. Have students work in teams of three to complete the assignment. You might assign teams to investigate a specific potential source of water pollution such as industrial waste, agriculture, domestic waste, or transportation devices.
- Suggested websites for research:
 - www.epa.gov
 - www.scdhec.net/water/
- Give students a copy of the *Ten Tips for Working in a Group* handout. Review the tips and brainstorm some ways that students can organize to complete their project on time.

Part Two — Career Development Connections (30 minutes)

- After students have completed the project, discuss with them what it was like working in a group.
- Give students a copy of the *Working in Groups – Self-Reflection* and have them complete it.
- Invite students to share their reflections. What behaviors helped them, what got in the way? Did they like working in a group? What contributions did they make to the group?
- Remind students that the ability to work in groups with all sorts of people is a key employability skill...one they will need in most jobs.

Crosswalks

SC Career Guidance Standard/Competency

Learning to Work Standard 4. Students will demonstrate a positive attitude toward work and the ability to work together.

Competency 4.3. Demonstrate the interpersonal skills required for working with/for others.

Key Employability Skills

Personal Qualities—Responsibility, self-management

Interpersonal Skills—Teamwork, diversity

Thinking Skills—Problem-solving, decision-making, critical thinking, reasoning

Information Management—Acquires, interprets, and communicates information

Ten Tips For Working in a Group



1. Choose a group leader. This person should be organized, responsible, and considerate. The leader should encourage everyone to participate.
2. Listen to each other. Give everyone a chance to be heard.
3. Solve problems in a diplomatic way. Be fair.
4. Respect the feelings of other people in the group. Control your temper.
5. Demonstrate tolerance and flexibility. When you disagree, negotiate with each other.
6. Share how you feel about what the group is doing and how things are working.
7. Be organized. Brainstorm ideas and write them down. Be creative.
8. Gather information. Each person should contribute something.
9. Plan your work so that you finish on time.
10. Enjoy the chance to hear new ideas and get to know others better.



Working in Groups: Self-Reflection



NAME _____

DATE _____

Directions: Think about your experience working in your group. Answer the following questions.

1. What did you learn about working in a group?

2. What did you contribute to your group project?

3. Were there any disagreements within the group? If yes, how were they resolved?

4. What kind of behavior was helpful to the group's completing the project?

5. What kind of behavior made it harder for the group to complete the project?

6. Do you like working in a group? Yes ____ No ____
What are your reasons?

