South Carolina Academic/Career Development Integration Activity

Title **Investigation Teams (EM-5)**
Subject **Math** **Grade Level(s) 5**

SC Content Standard – Data Analysis and Probability: Grade 5. Standard 5-6. Through the process standards students will demonstrate an understanding of designing an investigation, the affect of data collection methods on a data set, interpretation and application of measures of center, and application of basic concepts of probability.

Indicator: 5-6.1 Design an investigation to address a question. (B6)

National Career Development Guidelines Goal/Indicator
Personal Social Development GOAL PS2. Develop positive interpersonal skills including respect for diversity.

Indicator PS2.K4. Identify ways to get along well with others and work effectively with them in groups.

Career Development Objectives
1. Students will work on a team to design an investigation that addresses a question.
2. Students will identify ways to work effectively with others on a team.
3. Students will understand what strengths they bring to a team effort.

Assessment
1. Students will design an investigation that appropriately addresses a question.
2. Students will complete the *Working in Groups: Self-Reflection* worksheet to identify ways to work effectively on a team and what strengths they bring to the team.

Preparation
• Prior Learning—Instruction in formulating mathematical questions for investigation and the process for designing an investigation.
• Handouts/Worksheets—*Ten Tips for Working in a Group* handout and *Working in Groups: Self-Reflection* worksheet
• Resources/Materials—writing materials
• Time Required—90 to120 minutes over several days plus homework and discussion of the group process

Procedures
Part One

• In this activity, students will work on teams to formulate a mathematical question for investigation and design an investigation.
• Give students an overview of the investigation project.
• Tell students they will work on teams to write a question and then design an investigation for it. They will have time to work on the project in class.
• Group the students into teams of 4.
• Give students the *Ten Tips for Working in a Group* handout and review it with them. Remind students that everyone on the team has to contribute to the project.
• Have students brainstorm some questions they might choose to investigate.
• Tell students to begin by deciding on their question to investigate. (You might give them several topics to choose from to save time.) Check to be sure that each team's question is properly framed and clearly expressed.
• Review with students, step-by-step, how to design an effective investigation.
• Give students time to design their investigation.
• Have each team give a brief presentation of their investigation design and discuss its strengths and what they might do differently next time.
• For homework, have students complete the *Working in Groups Self-Reflection.*

Part Two — Career Development Connections
• Engage students in a discussion about their experience working on a team project. Suggested discussion questions…

What did you learn about working in a group?
What did you contribute to your group project?
How did you handle any disagreements in the group?
What kind of behavior was helpful to the group's completing the project?
What kind of behavior made it harder for the group to complete the project?
Did you like working in a group? Why or why not?

• Explain to the students that problem solving and working well with other students are important work skills. They will use those skills to be successful in school and, someday, to be successful on a job.

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 4.2. Demonstrate cooperative work habits in a group.
Competency 4.3. Demonstrate being a positive team member.

Key Employability Skills
Thinking Skills—Critical thinking, problem solving, decision-making
Interpersonal—Teamwork