SOUTH CAROLINA CAREER GUIDANCE EFFECTIVE EXERCISES

TITLE: MAKING PLANS

SUBJECT: Guidance Activity GRADE LEVEL(S): 9-12

SC Career Guidance Standard/Competency
• Learning to Work: Standard 3. Students will explore careers and the connection of school to work.
Competency 3.3. Identify the transition and transfer skills from school to work.
• 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.

National Career Development Guidelines Goal/Indicator
• Educational Achievement and Lifelong Learning: ED1. Attain educational achievement and performance levels needed to reach your personal and career goals.
Indicator ED1.K7. Show how your educational achievement and performance can expand your workplace options.
• Personal Social Development: GOAL PS2. Develop positive interpersonal skills and respect for diversity.
Indicator PS2.A4. Demonstrate the ability to get along with others and work effectively with them in groups.

Lesson Objectives
1. Students will understand how math skills learned in high school can be transferred to occupations such as those in the South Carolina Architecture and Construction Cluster.
2. Students will demonstrate the ability to work effectively together on a group project.

Assessment
1. Students will successfully work together to complete the group project (drawing plans for a new school building).
2. Students will complete the *Design a School Project Self-Reflection* worksheet.

Preparation
• Prior Learning—Introduction to career clusters and employability skills (SCANS), math skills in: measurement, area/perimeter, ratios, scale, and basic geometry
• Handouts/Worksheets—*Tips for Working in a Group* handout and the *Design a School Project Self-Reflection* worksheet
• Resources—Guest speaker(s) (e.g., architect, draftsperson, construction contractor), supplies and materials for drawing the school building plans, school building blueprints, sample blueprints of other buildings, math teacher(s)
• Time Required—5 class periods

Procedures

Note: This activity will take place over several days. Contact an architect, draftsperson, or construction contractor and make plans for him/her to address the class on the first day of the activity. Ask the guest speaker to give the students a brief history of architecture and to mention some local landmarks and the architectural style they represent. The guest speaker should also include information about the education/training requirements, job duties, and job outlook for architects and other occupations in the Architecture and Construction Career Cluster. Ask the speaker to give specific examples of how math skills are used in the occupation. Encourage the speaker to bring as many "tools of the trade" as possible to demonstrate to the students.

Part One (1 class period)

• Begin by telling the students they will take on the role of an architect and use their math skills to draw plans for a new school building. The guest speaker will tell them a bit about the job of architect and what is involved in designing a building. Ask students to pay particular attention to how math skills are used in the occupation and other occupations in the Architecture and Construction Career Cluster.
• Introduce the guest speaker and have the students interact with him/her for about 40 minutes.

Part Two (3 class periods)

• Divide the class into small groups (3-5 students), give them a copy of the *Tips for Working in a Group* handout, and briefly review it with them.
• Explain the project to the students—they will work on a team to draw plans for a new school building to be constructed on the same property as their current school. They will have three class periods to complete the project. They will use the first class to plan their design and make a rough draft of it. The next two classes will be used to make a scale drawing of their new school complete with a blueprint of the school's floor plan.
• Tell students they will display their final designs at the end of the week.
• Show students the materials and supplies available to use for their project.
• Serve as a "consultant" for the students as they work on their designs.
• Invite the guest speaker to visit the class as the project progresses and to be there for the exhibits on the last day of the week (if possible).

Part Three (1 class period)

• Display student designs and provide some time for a brief presentation of each team's work.
• Have students complete the *Design a School Project Self-Reflection* worksheet.
• Discuss how students felt about working in groups and what they learned about being a team member. Remind students that being able to work with groups is an important employability skill.
• Discuss how students used their math and other skills on the project.
• Discuss occupations in which math skills are important.

Tips for Working in a Group

1. Choose a group leader. This person should be organized, responsible, and considerate. The leader should encourage all students to participate.

2. Listen to each other. Give everyone a chance to be heard.

3. Be organized. Brainstorm ideas and write them down. Be creative.

4. Gather information. Each student should contribute something that the career speaker said.

5. Solve problems in a diplomatic way. Be fair.

6. Respect the feelings of other people in the group. Try to control your temper.

7. Demonstrate tolerance and flexibility. When you disagree, negotiate with each other.

8. Share how you feel about what the group is doing and how things are working.

9. Have a good time.

Design a School Project
Self-Reflection

Name: _____ ***Date:*** _____

Part 1—Working In Groups
Directions: 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. Do you like working in a group? Yes _____ No _____
   What are your reasons?

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

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

Part 2—Math/Career Connections
Directions: List five occupations in the Architecture/Construction Career Cluster and describe how math skills are used in each. Then list the skills (e.g., math) you used on the project.

Occupation #1 _____
How math skills are used…

Occupation #2 _____
How math skills are used…

Occupation #3 _____
How math skills are used…

Occupation #4 _____
How math skills are used…

Occupation #5 _____
How math skills are used…

What skills (e.g., math) did you use on the Design a School Project?

1.
2.
3.
4.
5.
6.