

3rd Grade Career Development
Activity #15: Science, Technology, Engineering, and Mathematics Careers
Estimated time: 30-45 minutes

National Career Development Guidelines Indicators

ED1 - Attain educational achievement and performance levels needed to reach your personal and career goals

- ED1.K7 - Recognize that your educational achievement and performance can lead to many workplace options
- ED1.K8 - Recognize that the ability to acquire and use information contributes to educational achievement and performance

ED2 - Participate in ongoing, lifelong learning experiences to enhance your ability to function effectively in a diverse and changing economy

- ED2.K3 - Recognize the importance of being an independent learner and taking responsibility for your learning

CM3 - Use accurate, current, and unbiased career information during career planning and management

- CM3.K2 - Recognize that career information includes occupational, education and training, employment, and economic information and that there is a range of career information resources available
- CM3.K4 - Identify several ways to classify occupations

CM4 - Master academic, occupational, and general employability skills in order to obtain, create, maintain, and/or advance your employment

- CM4.K4 - Recognize that many skills are transferable from one occupation to another

Goal:

Students will investigate careers in the Science, Technology, Engineering, and Mathematics Career Cluster.

Objectives:

- Understand that a career cluster is a grouping of occupations based on commonalities
- Recognize that the **Science, Technology, Engineering, and Mathematics** Career Cluster includes careers in science, technology, and math to design, build or operate equipment, structures and systems
- Investigate careers in the **Science, Technology, Engineering, and Mathematics** Cluster

Materials:

- 3rd Grade Career Development Activity – **Science, Technology, Engineering, and Mathematics Careers: Career List** handout #1
- 3rd Grade Career Development Activity – **Science, Technology, Engineering, and Mathematics Careers: Careers Crossword** handout #2
- 3rd Grade Career Development Activity – **Science, Technology, Engineering, and Mathematics Careers: Careers Crossword** answer sheet
- Writing materials
- Crayons, colored pencils, or markers

Activity:

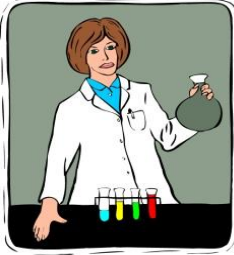



1. “Today we’re going to learn about occupations in the **Science, Technology, Engineering, and Mathematics** Career Cluster. Does everyone remember what a Career Cluster is? **A career cluster is a grouping of occupations based on things they have in common.**”
2. “The **Science, Technology, Engineering, and Mathematics (STEM) Career Cluster** includes jobs that plan, manage, and provide scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.” *Write this on the board.* “There are many occupations that fall under the STEM umbrella. Let’s look at some of them”
3. *Distribute the **Science, Technology, Engineering, and Mathematics Careers: Career List** handout. Go over the occupations listed. Ensure that students understand before continuing.*
4. “Now, we are going to do a crossword puzzle to see how much we know about these *STEM occupations.*” *Distribute the **Science, Technology, Engineering, and Mathematics Careers: Careers Crossword** handout. Explain the directions and ensure students understand the assignment. Allow time for students to complete the assignment. Walk around the room and offer assistance to students.*
5. *Once students have completed their assignment, go over the handout.*
6. *Have students draw a picture of their favorite STEM occupation on the list. Have them explain why they like the occupation they chose. When students are finished, collect the handout and drawing. Display the drawings around the classroom.*

Evaluation:

Students will be evaluated on their drawings and on their handouts.

Handout #1

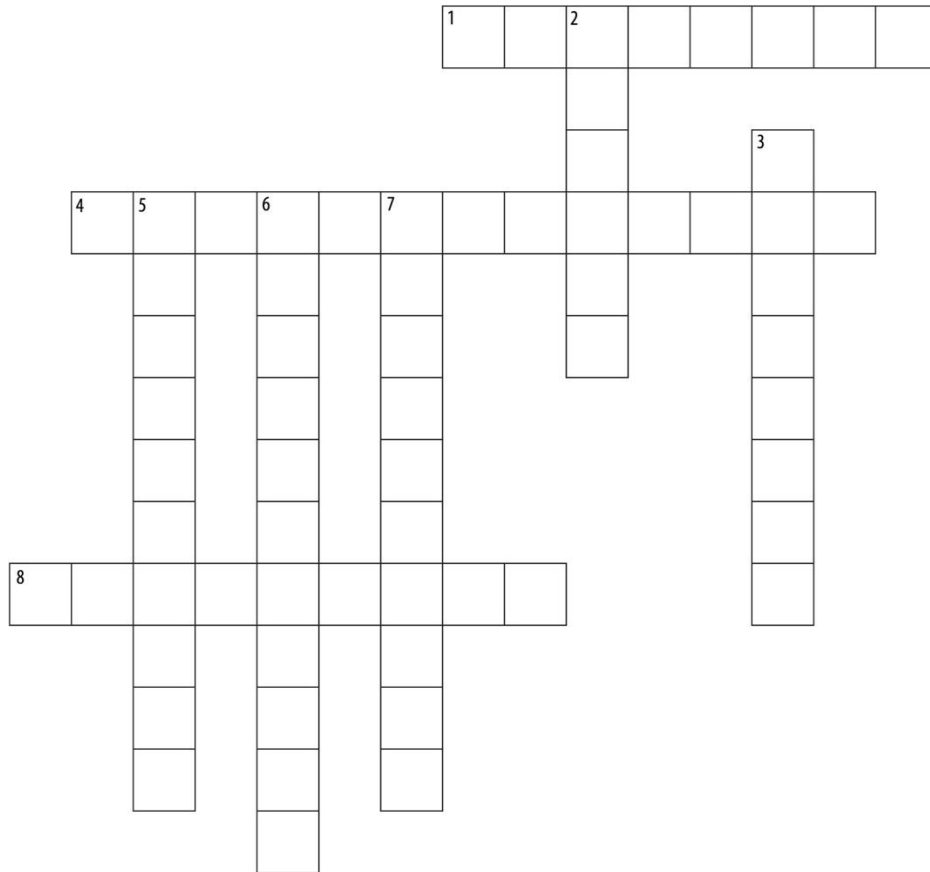
Science, Technology, Engineering, and Mathematics Career: Career List 3rd Grade Career Development

<p><u>Science-oriented Careers</u></p> <ul style="list-style-type: none">• Environmental Scientist• Chemist• Astronomer• Physicist• Hydrologist• Biologist 	<p><u>Technology-oriented Careers</u></p> <ul style="list-style-type: none">• Mapping Technician• Surveying Technician• Hardware Engineer• Computer Scientist• Information Scientist 
<p><u>Engineering Careers</u></p> <ul style="list-style-type: none">• Wind Energy Engineer• Chemical Engineer• Electrical Engineer• Mechanical Engineer• Marine Engineer 	<p><u>Math-oriented Careers</u></p> <ul style="list-style-type: none">• Mathematician• Statistician• Economist• Statistical Assistant 

Handout #2

Science, Technology, Engineering, and Mathematics Career: Career Crossword
3rd Grade Career Development

Directions: The careers listed below in the word bank are in the puzzle. Use the clues to solve the puzzle.



- Word Bank**
- Astrologer
 - Biologist
 - Computer
 - Hardware
 - Hydrologist
 - Marine
 - Mathematician
 - Mechanical

- Across**
- 1. A _____ scientist studies the design and usage of computers to help develop systems.
 - 4. A _____ studies mathematics.
 - 8. This scientist studies life forms and the environment.

- Down**
- 2. A _____ engineer designs ship machinery including power supply systems.
 - 3. A _____ engineer designs computer-related equipment.
 - 5. This scientist observes, researches, and interprets astronomical phenomena.
 - 6. This scientist studies the distribution, circulation, and physical properties of water.
 - 7. A _____ engineer plans and designs tools, engines, machines, and other mechanically functioning equipment.

Answer Sheet

Science, Technology, Engineering, and Mathematics Career: Career Crossword
3rd Grade Career Development

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