

INVESTIGATING CAREER CLUSTERS



Manufacturing

What Is the Manufacturing Cluster?

Occupations in this cluster involve the design and assembly of products ranging from huge earth-moving equipment to the microminiature parts of an electronic instrument. Besides management, jobs center around scientific, engineering, technical, skilled, semi-skilled and unskilled work.

Skills Needed

science skills, math skills, communication skills, ability to work with your hands, creative skills, technical skills, and physical stamina.

THE FACTS	Types of Careers in This Cluster	Work Description	Career Outlook	Education
	Chemist	Develop new and improved fibers, paints, adhesives, drugs, electronic components, and other products	Average	Ph.D.
	Industrial engineer	Apply scientific theories to solve practical problems of industrial machinery	Average	Bachelor's degree
	Science technician	Assist scientists in research	Average	Associate's degree, or Bachelor's degree
	Textile machine operator	Tend machines that manufacture a wide range of textile products	Slower than average	High-school diploma, On-the-job training
	Engineering technician	Assist engineers in research, development, inspection, and production	Slower than average	Associate's degree
	Production manager	Coordinate the activities of personnel in a production department	Slower than average	Bachelor's degree

ACTIVITY

Your goal: Draft a plan to manufacture your own personal robot.

What to think about: Robots are being used in many industries today. Have you thought about what a robot could do for you?

What to do: Make a plan for a robot to help you in your daily life. Think about what you do every day. How could a robot help you? On a separate sheet of paper write a 250-word paragraph describing your robot.

Consider the following questions:

- How would a robot help you at home and at school?
- What materials would you use to manufacture this robot?
- What would make it work?
- Would it talk?

At the bottom of your page, draw a picture of your robot.

CRITICAL THINKING

1. What do you think of the jobs in this cluster? Do you think you might like to work in one of them? If so, which one?

2. How do the people who work in this cluster help you, your family, and your community? Explain in one paragraph.
