

Technology



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Introduction

Technology will help you to understand:

- How people use technology to make our world work.
- Why technological systems work the way they do.
- In what ways technology affects both people and our planet.

It covers the seven areas of technological activity:

- Communication and information
- Medical
- Transportation
- Agricultural and biotechnology
- Construction
- Energy and power
- Manufacturing

In this book you will learn that technology is a reaction to problems and opportunities—a human adaptive system. You will learn that technological systems are made up of many parts that require tools. You will learn about the problem-solving and design process, especially the testing, evaluating, and communicating of design solutions.

Sections explore, in depth, the production of products and structures, communication and information, agricultural and biorelated technologies, transportation, and the use of energy. Because every system must have direction, the management of technological systems is covered. The examination of societal and personal views of technology rounds out the book.

Technology is illustrated with photographs, drawings, diagrams, and original artwork to help explain the concepts in the text. Most of these illustrations are in color. This material has been carefully selected to make technology easy to understand. Each chapter begins with objectives so you know what will be covered. Key words are in bold to help make you aware of them. Review questions and activities will improve your understanding. The activities between sections provide you with valuable hands-on experience.

Impacts, both positive and negative, accompany the use of technology. The only way that people in the modern world can choose and apply technology responsibly is to understand how technology develops and how the various technological systems interact.

A Student Activity Manual has activities and exercises that will give you important experience while fully enriching the concepts developed in the text.

A sound understanding of technology is vital for making wise choices. As you study, you will see the effects of your choices. These choices control how technology is used. Each person can make a difference to be sure that technology is used responsibly. With a solid understanding of technology, you can understand and take an active part in our human-built world.

About the Author

Dr. R. Thomas Wright n ng g n n g
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Manufacturing n Automation Technology, Processes of Manufacturing,
Exploring Manufacturing, n Technology. Exploring
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