Skills for Success Book 1 Manufacturing

Mastering Reading Skills for Success Book 1 Manufacturing

Robert Ventre Associates, Inc. Ellen Kisslinger



NOTICE TO THE READER

Publisher and author do not warrant or guarantee any of the products described herein or perform any independent analysis in connection with any of the product information contained herein. Publisher and author do not assume, and expressly disclaim, any obligation to obtain and include information other than that provided to them by the manufacturer.

The reader is expressly warned to consider and adopt all safety precautions that might be indicated by the activities described herein and to avoid all potential hazards. By following the instructions contained herein, the reader willingly assumes all risks in connection with such instructions.

The publisher and author make no representations or warranties of any kind, including but not limited to, the warranties of fitness for particular purpose or merchantability, nor are any such representations implied with respect to the material set forth herein, and the publisher and author take no responsibility with respect to such material. The publisher and author shall not be liable for any special, consequential or exemplary damages resulting, in whole or in part, from the reader's use, or reliance upon, this material.

Cover design by Nancy Gworek
Cover photo by Tom Carney
Photo location courtesy Garden Way Inc., Troy, New York

Delmar Staff
Senior Executive Editor: David C. Gordon
Project Editor: Mary P. Robinsen
Production Coordinator: Teresa Luterbach
Design Supervisor: Susan C. Mathews

For information, address Delmar Publishers Inc. 2 Computer Drive West, Box 15-015, Albany, NY 12212

COPYRIGHT © 1991 BY DELMAR PUBLISHERS INC.

All rights reserved. No part of this work covered by the copyright hereon may be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—without written permission of the publisher.

Printed in the United States of America Published simultaneously in Canada by Nelson Canada A Division of The Thomson Corporation

10 9 8 7 6 5 4 3 2 1

ISBN 0-8273-4462-7

TO THE LEARNER

Welcome to *Mastering Reading: Skills for Success, Book 1/Manufacturing*. All the books in the manufacturing series are written with you, the adult learner, in mind. As you know, being able to read well is very important in the world of today. With good reading skills, you have a much better chance of getting the kind of job you want. Good reading skills also let you move ahead in the job you have. You can learn more about the world in which you live.

The book you are about to use will improve your reading skills as you learn about manufacturing and self-care.

Book 1 is made up of 20 lessons. You can look at the **Table of Contents** to see what they are about. Each lesson begins with some questions on the first page. There are no right or wrong answers to these questions. Examples of questions are, "What common machines do you use everyday?" and "What are the things around you made of?" These questions let you look at some things that you have already learned in your life. That way, the lesson will make more sense to you. Some of you reading this book will be in a class with other students. If so, your instructor will probably have you talk about these questions as a class. If you are working alone with a tutor, you can discuss your ideas with the tutor.

Each lesson has two pages of reading. Most of the readings are about manufacturing. Other readings are about taking care of yourself and getting along in the world. As you read, you will notice that some words are in **boldface**. These bold-faced words are explained in the **Glossary** in the back of the book. The Glossary tells you what each bold-faced word means. After you read the meaning, you will find one or two sentences using that word.

After each reading, you will see exercises. Each lesson has about three pages of exercises. These exercises ask questions that are based on the reading or on your own experience in life. There are two kinds of exercises in each lesson:

- one Review exercise
- two or more Practice exercises

Answers for all the Review and Practice exercises are in the back of the book in the **Answer Key**. You can find the Answer Key just before the Glossary. The Answer Key lets you check your answers and correct them if you need to.

The Review questions have three possible answers to choose from. To find the right answers, you may want to go back and do the reading again. You will probably discuss your answers with people in your class and with your teacher. The first Review question in each lesson is answered for you.

There are many different kinds of Practice exercises. Some exercise questions have just one right answer. Others have more than one answer. These types of Practice exercises will have the words: "More than one answer is possible. Check with your instructor or tutor." With such exercises, each learner might have a different answer. But all those answers would be correct. For example, the question "What did you have for breakfast?" would have many answers. Each answer would be correct for the person giving it.

When you have read Mastering Reading: Skills for Success, Book 1/Manufacturing, you may wish to read Mastering Reading: Skills for Success, Book 2/Manufacturing. This is the next book in the Mastering Reading: Skills for Success, Manufacturing series. Book 2 also is about manufacturing and self-care. But it tells you more about these things.

Book 2 is followed by Mastering Reading: Learning About Manufacturing, Book 3 and Mastering Reading: Learning About Manufacturing, Book 4. These books deal more directly with the field of manufacturing. If you think that you may want a career in manufacturing, these books will be useful to you. They tell you about some of things you do in the manufacturing field.

Some adult learners reading these books will wish to get a job in manufacturing. Other learners will want to read the books to learn how to read better and know more about manufacturing. Whatever reason you have, we hope that you are able to enjoy this book and to learn from it. Good Luck!

CONTENTS

UNIT 1	Hammer, Please	1
UNIT 2	Move It Easily	7
UNIT 3	Everything in Its Place	13
UNIT 4	Measure It	19
UNIT 5	Who Makes It?	25
UNIT 6	What is the Next Step?	31
UNIT 7	What is it Made Of?	37
UNIT 8	What Does It Say?	43
UNIT 9	Safety: A 24-Hour Job	49
UNIT 10	Keep It Safe	55
UNIT 11	Save Your Back	61
UNIT 12	First Aid First	67
UNIT 13	Emergency!	73
UNIT 14	Food for Energy	79
UNIT 15	Work It Out	85
UNIT 16	Beat the Clock	91
UNIT 17	Computers Are Everywhere	97
UNIT 18	Please Fill This Out	103
UNIT 19	What Are You Good At?	109
UNIT 20	On the Team	115
	Answer Keys	121
	Glossary	161

UNIT

Hammer, Please

This unit is about:

- common hand tools
- how the hand tools are used

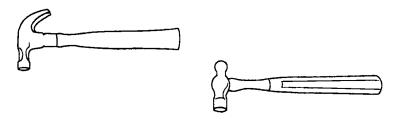
Think About

What hand tools do you have at home? What do you use them for? Where do you keep your tools?

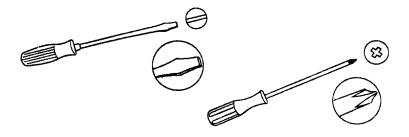
Hammer, Please

A chair needs to be fixed. A screw needs to be tightened. You need a few basic, or simple, tools. Most of us have at least a few hand tools. Here are some of the most common hand tools. You may have them around your home.

Hammers. Most of us have a claw hammer. We use it to nail and to repair things around the house that are broken. Another type of hammer is the ball-peen hammer. It is rounded on one end. It is used for working with metals such as iron or steel.



Screwdrivers. A regular screwdriver has a flat head. It is used with straight slot screws. The Phillips™ head screwdriver is another type. A Phillips™ head screw has a cross on the top. You need to use the right kind of screwdriver. Use the right size, too. The wrong size or the wrong kind can hurt the screw and the screwdriver.



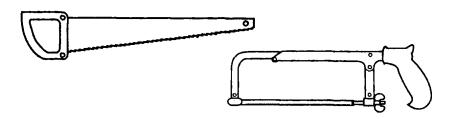
Pliers. We use pliers to help us tighten, twist, or grip (hold tight) many things. Pliers help us hold things tightly. The most common pliers, the slip-joint pliers, look like this:



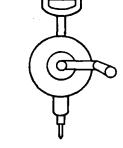
Wrenches. A wrench is a turning tool. It is used to tighten bolts. There are many different kinds. One kind is an adjustable wrench. You can adjust, or change, the size of the opening. The wrench should always fit tightly. Otherwise, it can slip and hurt you.



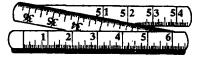
Saws. There are many kinds of handsaws. A cross-cut saw, below on the left, is common. You can use it to cut wood. Another kind of saw is a hacksaw, below on the right. You use it to cut metal.



Drills. The basic drill is a manual drill. You work it by hand. The drill is used to make holes easily. It is good for small jobs.



Measuring Tools. When you build or repair something, you often have to measure it. How long is it? How wide? A metal tape or a simple yardstick can do the trick.



For most of us, these are the tools that we need around the house. They make it easier and safer to do basic repairs.

REVIEW

Choose the best answer. Circle it. Go back to the reading to check your answers. The first one is done for you.

a. toolsb. chairsc. metal			
c. metal			
2. Alex needs to nail a wooden box closed.			
a. a screwdriver			
b. pliers			
c. a claw hammer			
0 000	~ .		
3. Theresa needs to tighten a screw with a cross on top	She		
needs a screwdriver.			
a. big			
b. Phillips™ head			
c. flat-head			
4 are used to hold something tightly.			
a. Hand drills			
b. Pliers			
c. Hammers			
c. Hammers			
. If a wrench is not tight, it can			
a. hold			
b. grip			
c. slip			
6. The best tool to use to make a hole is a			
a. hacksaw			
b. manual drill			
o. manaa am			

PRACTICE

A. What is in the toolbox? Look at the toolbox below. To the right, write the name of each tool you see. Go back to the reading if you need help with the names. The first one is done for you.

2. 2. 3. 2. 5. 8. 6.

1.	manual_drill
2.	
3.	
4.	

B. What is in your toolbox? What tools do you have at home? Write your list on the lines below. One idea is given for you.

a clay	<u>v nammer</u>			1.51	
		 	······································		
		·	 		
					

Think about which tool you would use in each situation. Write your answers on the lines below. The first one is done for you. 1. Alex needs to tighten a bolt on a chair. a wrench 2. Maria wants to nail two boards together. 3. Peter needs to cut a board to make a bookshelf. 4. Horacio needs to tighten a loose screw on a door. 5. Vi needs to make a hole to hang a light. 6. Michael wants to twist some wire. He needs to grip it well. 7. Lee needs to cut a metal pipe.

8. Sarah wants to measure her windows to make curtains.

C. What would you use? These people are fixing things.

UNIT 2

Move It Easily

This unit is about:

- the six basic machines
- how the basic machines work

Think About

What common machines do you use every day? What do you use them for?

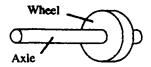
Move It Easily

There are thousands of machines all around us. But did you know that there are only six basic machines? Most of the tools and machines that we use are made of these six basic machines. Let's look at what they are.

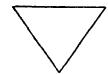
The lever. The lever is a simple machine. It has two parts: an arm and a fulcrum. The arm moves; the fulcrum does not. There are many levers in our daily lives. A crowbar is a lever. Imagine a man using a crowbar to lift a tree. The long, metal crowbar is the arm. The block under the crowbar is the fulcrum. The crowbar helps the man move the tree all by himself.



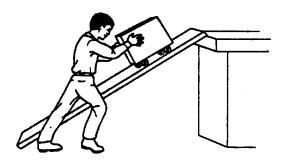
The wheel and axle. Wheels are all around us. We see them on cars, on gears in machines, and on hand drills. Think about the gears in a car. In a car, the teeth of the gears come together. The gears turn. Then the car wheel turns. The axle also turns. They work together.



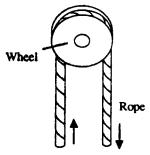
The wedge. A wedge is used for cutting or splitting something apart. A wedge is shaped like this:



The inclined plane. A loading ramp is an example of an inclined plane. The ramp makes it easier to load something heavy, such as a large box. The sharper, or steeper, the ramp is, the harder it is to move the box. A longer ramp makes it easier.



The pulley. A basic pulley has two parts: a wheel and a rope or chain. You pull down on the rope. The rope moves around the wheel. The pulley lifts up the heavy object on the other end. A pulley is very useful. It makes lifting heavy things easier.



The screw. The screw is used in many machines and tools. Look at a screw carefully. You can see that a screw is really a twisted wedge.



These basic machines are all around us. Our tools are made of these basic machines. These machines help us get things done more easily.

REVIEW

Choose the best answer. Circle it. Go back to the reading to check your answers. The first one is done for you.

1.	A cro	wbar is a type of
	(a.)	lever
	б.	pulley
		wedge
2.	The _	of a lever does not move.
		top
	b.	fulcrum
	c.	arm
3.	A han	nd drill uses a
	a.	wedge
	b.	pulley
		wheel
4.	A lon	ger loading ramp makes it to move something.
	a.	easier
	b.	steeper
		harder
5.	Α	is used to lift a heavy box.
٠.		wedge
		pulley
		• •
	C.	screw
6.		ner title for this reading could be
		Levers
	b.	Wheels and Wedges
		Simple Machines
		•

PRACTICE

word		reading.	Complete each sentence with a Write the answer in the space.	
	basic steep	ramp wedge	screw	
1.	A <u>screw</u>	 	is really a kind of wedge.	
2.	There are six		machines.	
3.	We use a		to split something.	
4.	A		_ makes it easier to load a truck.	
5.	A		ramp is harder to use.	
B. Think it over. Think about the machines you have seen. What simple machines were they made of? Write your list on the lines below. One idea is given for you. A pencil sharpener uses a kind of screw.				