

Content Consultant
Dale F. Reed, PhD
Department of Computer Science
University of Illinois at Chicago, Chicago, Illinois

Library of Congress Cataloging-in-Publication Data

Names: Taylor-Butler, Christine, author.

Title: Computers / Christine Taylor-Butler.

Other titles: True book.

Description: New York : Children's Press, an imprint of Scholastic Inc., [2017] | Series: A true book
| Includes bibliographical references and index.

Identifiers: LCCN 2016000348 | ISBN 9780531218624 (library binding) | ISBN 9780531227800 (pbk.)

Subjects: LCSH: Computers—Juvenile literature. | Computers—History—Juvenile literature.

Classification: LCC QA76.23 .T39 2017 | DDC 004—dc23

LC record available at <http://lcn.loc.gov/2016000348>

No part of this publication may be reproduced in whole or in part, or stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission of the publisher. For information regarding permission, write to Scholastic Inc., Attention: Permissions Department, 557 Broadway, New York, NY 10012.

© 2017 Scholastic Inc.

All rights reserved. Published in 2017 by Children's Press, an imprint of Scholastic Inc.

Printed in China 62

SCHOLASTIC, CHILDREN'S PRESS, A TRUE BOOK™, and associated logos are trademarks and/or registered trademarks of Scholastic Inc.

1 2 3 4 5 6 7 8 9 10 R 26 25 24 23 22 21 20 19 18 17

Front cover: An illustration of
a robot reading a book
Back cover: A young girl assembling
an electronic circuit

Find the Truth!

Everything you are about to read is true *except* for one of the sentences on this page.

Which one is **TRUE**?

T or F Microsoft invented the first personal computers.

T or F Early computers once filled an entire room.





An astronaut spacewalks to fix a broken computer on the International Space Station.

CHAPTER



The First Steps

How many times have you used a computer today? Maybe you watched a video or looked up information for a school project. These powerful devices are everywhere. Computers make many complex tasks easier. They might be used for something as simple as typing and storing a document. But they can also be used for something as complicated as sending a spacecraft, such as the Mars Rover, to Mars.

The Mars Rover transmits data from 140 million miles (225 million km) away.

THE **BIG** TRUTH!

Computer Graphics Through the Years

Early computers could show little more than plain green or white text on a black screen. But computer graphics have come a long way since then.



Before computers were able to display photos and other graphics, some clever users arranged letters, numbers, and punctuation marks to create pictures like the one shown here.



The Apple II, released in 1977, was one of the first widely available computers to display color graphics. Around the same time, some of the first home video game systems with color graphics were also released. At first, computers could only show a few colors at a time. Images were blocky. Over time, they were able to show more colors. Digital images became more detailed.



Today's devices can display realistic 3-D graphics. Powerful graphics cards are able to create entire worlds filled with expressive characters. This technology is used to create everything from video games to animated movies.



Virtual reality devices are also growing in popularity. Users wear a set of goggles that plug into a computer. They then see a 3-D world. To look around, all the user has to do is move his or her head.

AI is being expanded to computers that behave and look like humans. MIT's Kismet robot head responds to human voices and emotion. Another robot built to look like writer Philip K. Dick learns from conversation and answers questions. NASA's Robonaut project aims to create a **humanoid** robot that can handle tools and perform dangerous space walks in place of humans.

Robonauts will allow space agencies to explore worlds that humans cannot.



Robots are often made to look or act like living creatures such as this drone insect.

What's Next?

Some scientists and philosophers worry about the role computers play in our lives. They think computers may soon substitute for developing our own intelligence. The machines would simply do everything for us. Would this be more helpful to humanity or more harmful? Could computers replace humans completely? Will they eventually look, speak, and even think and act like us? If you were in charge, how far would you go? ★



An astronaut spacewalks to fix a broken computer on the International Space Station.

CHAPTER



The First Steps

How many times have you used a computer today? Maybe you watched a video or looked up information for a school project. These powerful devices are everywhere. Computers make many complex tasks easier. They might be used for something as simple as typing and storing a document. But they can also be used for something as complicated as sending a spacecraft, such as the Mars Rover, to Mars.

The Mars Rover transmits data from 140 million miles (225 million km) away.