

# Teacher's Toolkit

For use with Third Edition

# MATH 6



# END USER LICENSE AGREEMENT

CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS BEFORE USING THIS PRODUCT. IT CONTAINS SOFTWARE AND OTHER MATERIALS, THE USE OF WHICH IS LICENSED BY BJU PRESS TO YOU, THE ORIGINAL END USER, FOR YOUR USE ONLY AS SET FORTH BELOW. IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT USE THE SOFTWARE OR MATERIALS CONTAINED ON THIS CD-ROM. USING ANY PART OF THE SOFTWARE OR MATERIALS INDICATES THAT YOU ACCEPT THESE TERMS.

BJU Press ("Licensor") grants you a nonexclusive license ("License") for the software ("Software") and documents ("Documents") contained on this electronic medium, and any derivative works created in your use of the Documents. The Software, Documents, and derivative works of the Documents are hereafter collectively referred to as the "Product." The Product is subject to protection under copyright laws and other intellectual property laws of the United States and other jurisdictions. You may

1. use the Product on a single computer at any one time;
2. use the Product on more than one computer provided only one copy is used at a time or provided that copies used at the same time are used by the teacher and his or her designated assistant only;
3. use the Product on a network provided that each user accessing the Product through the network has lawfully obtained a licensed copy of the Product or is a designated assistant of a licensed user;
4. make one copy of the Product for archival or backup purposes;
5. create derivative works from the Documents as part of the normal use of the Documents.

The Product is the sole and exclusive property of Licensor. Other than classroom distribution, you may not reproduce, redistribute, retransmit, modify, publish, or exploit any part of the Product, or permit a third party to do any of the foregoing, without permission of Licensor. You may not sell, rent, lease, give access to, modify, alter, decompile, disassemble, translate, or reverse engineer the Product.

**LIMITED WARRANTY:** Licensor warrants that the media on which the Product is supplied will be free from defect in material and workmanship under normal use for a period of 90 days from the date of delivery to you. If the Product or media do not perform as warranted in this paragraph, Licensor will, at its option, correct or replace the Product or defective media to comply with the warranty given in this paragraph. Licensor does not warrant that all program defects will be corrected, that the operation of the Product will be uninterrupted or error free, or that the Product will be compatible with your computer.

Use of the Product to access the Internet may not include safeguards relative to copyright, ownership, decency, reliability, and integrity of content, and is at your own risk. You will be responsible for providing and maintaining all equipment and services required to use and access the Internet.

In the event that you fail to comply with any term or condition in the License Agreement, the License will terminate immediately without notice to you and Licensor may pursue all appropriate legal remedies.

**WARRANTIES EXCLUSIVE:** THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED BY LICENSOR AND ITS SUPPLIERS.

**LIMITATION OF LIABILITY:** NEITHER LICENSOR NOR ITS SUPPLIERS SHALL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, OR SPECIAL DAMAGES OF ANY KIND, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE OR USE OF THE PRODUCT, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR ANY OTHER THEORY, EVEN IF LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. LICENSOR'S ENTIRE LIABILITY SHALL BE LIMITED TO REPLACEMENT, REPAIR, OR REFUND OF THE PURCHASE PRICE PAID, AT LICENSOR'S OPTION.

**DISCLAIMER:** Some countries, states, or provinces do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages so the above limitations and exclusions may be limited in their application to you. When implied warranties may not be excluded in their entirety, they will be limited to the duration of the applicable written warranty. This warranty gives you specific legal rights; you may have other rights that may vary depending on local law. Your statutory rights are not affected.

**GOVERNING LAW:** This License Agreement shall be governed by the laws of the State of South Carolina, U.S.A., and by the laws of the United States, without regard to any rule of law that might provide for the application of another or different law. The United Nations Convention on Contracts for the International Sale of Goods is hereby excluded in its entirety from application to this License Agreement.

**SEVERABILITY:** In the event that any provision of this License Agreement is found to be invalid, illegal, or unenforceable, the validity, legality, and enforceability of any of the remaining provisions shall not in any way be affected or impaired.

# Teacher Information

The reproducible pages on this CD supplement the daily lesson in *MATH 6*, Third Edition. Since each teaching situation is different, these pages are provided to help you meet the needs of your student(s). Multiple copies of pages may be made for classroom use. When a page is copied, the shading of gray may vary from the original. Adjust the density (i.e., lightness or darkness) of the copier to allow for the shading of gray on a page.

## Application Pages

These optional reproducible pages are designed to reinforce and enrich the concepts taught in the *MATH 6 Teacher's Edition*. The pages are grouped according to concept and vary in format. Completion of these pages will extend the student's reasoning abilities, number sense, mental math, and the ability to draw an illustration for a solution. The pages may be completed independently, used as group or paired activities, or used in learning centers.

## Assessment Pages

Each chapter contains 1 or 2 reproducible assessment pages. These pages may be used to determine a student's understanding and proficiency as he progresses through a chapter.

## Calculator Activities

Activities and reproducible pages are provided to give the student hands-on practice using a calculator for concepts taught in Math 6.

## Christian Worldview Shaping

These pages provide additional teacher instruction and reproducible pages that emphasize the importance of math in helping us make wise use of God's creation. Real-life problems are designed to show the student that math is an important tool for exercising dominion, God's first command to the human race (Genesis 1:28).

## Daily Review Pages

These reproducible pages provide each Daily Review in the *MATH 6 Student Text* in a full-page format. This format allows the student to write his answers and entire solutions on the page. Problem numbering and set-up may vary slightly from the Student Text page in an effort to maximize spacing.

## Daily Review Pages Answer Key

These pages provide the answers for the Daily Review pages on the *MATH 6 Teacher's Toolkit CD*.

## Fact Fun Activities

Activities and games provide a fun way to review memorized facts and help the student to increase his speed and accuracy. Activities that are written for a specific math operation may be adapted for other operations.

## Fact Reviews

Fact Reviews are provided for groups of facts. Each page may be reproduced multiple times for practice at home and at school. Alternate the Fact Reviews so that the student is not repeatedly reviewing the same facts. See Appendix page A6 in the Teacher's Edition for additional information about using the Fact Reviews.

## Handbook

This reference tool, that is also included in the *MATH 6 Student Text*, may be reproduced for the student to keep in his math notebook.

## Instructional Aids

This section contains essential instructional pages that aid in the teaching of the lessons in the *MATH 6 Teacher's Edition*. Included are patterns, pictures, charts, graphs, worksheets, and a variety of problems designed for mental math practice.

## Leading a Child to Christ

This page is a guide for sharing the plan of salvation with a student or a parent. Bible verses are provided to help the person understand his need of salvation and to give him the assurance that forgiveness comes when he repents of his sin and accepts Christ's atoning work on the cross.

## Manipulatives Alternatives

This section provides ideas for making alternative manipulatives using common household items.

## Math Facts

Lists of addition, subtraction, multiplication, and division facts are provided.

## Solutions

In addition to the solutions for the problems in the *MATH 6 Student Text* that are provided in the Solutions section of the Teacher's Edition, this section also provides drawn/illustrated solutions and complete and/or alternative solutions that are not provided in the Student Text Pages Answer Key on the Teacher's Toolkit CD or shown on the reduced Student Text pages pictured in the lessons of the Teacher's Edition.

## Student Text Pages Answer Key

This section provides an answer key in a full-page format for the lesson pages, the Cumulative Review pages, the Exploring Ideas pages, and the Daily Reviews in the Student Text.

## Symbols and Formulas

This reproducible page may be used as a reference tool in the student's math notebook.

## Teaching Visuals

This section contains charts that are used in the lessons and supplementary charts that may be used in the lessons and/or displayed in the classroom. The charts may be copied or transferred for display in the classroom. If one student or a small group of students is being taught, the student(s) may be directed to read the chart from the computer screen. A few manipulatives are also provided in this section. These may be duplicated if additional student or teacher manipulatives are desired.

# Usage Instructions

## **General Instructions for Using Adobe® Reader®**

See the Help files in Adobe Reader for general information about navigation, viewing, and printing.

## **Visual Image Copyright Protection**

All images are protected by copyright. Please review the End User License Agreement for the conditions under which you may use these materials. Some images on this CD have been produced with security settings to prevent duplication due to copyright agreements with our photo suppliers. Any unlocked images may be copied and pasted into third-party software to illustrate your teaching materials in any way you see fit within your classroom, and as long as such usage complies with the Fair Use Provisions as set forth in U.S. Copyright laws. Otherwise, the images on this CD may not be displayed on any website, stored on a server or network apart from the original CD media, or published in any form without express permission from BJU Press.

# Printing Instructions

[NOTE: For easy reference, print out this page.]

- Click on the section from which you want to print: “Application Pages,” “Assessment Pages,” “Calculator Activities,” “Christian Worldview Shaping,” “Daily Review Pages,” “Daily Review Pages Answer Key,” “Fact Fun Activities,” “Fact Reviews,” “Handbook,” “Instructional Aids,” “Leading a Child to Christ,” “Manipulative Alternatives,” “Math Facts,” “Solutions,” “Student Text Pages Answer Key,” “Symbols and Formulas,” or “Teaching Visuals.”
- From the File menu (at the top of your screen), select “Print.”
- Under “Print Range,” select “All pages” if you wish to print the entire section. If you wish to print only one page or a few pages from the section, use the “Current page” or “Pages from \_\_\_\_ to \_\_\_\_” option.
- Be sure to set the “scaling” in the print dialog box at 100%. This option is found in different locations for each printer. If your printer has any other type of scaling, such as “fit to printer margins,” make sure it is turned off. (This will ensure that the pages print at 100%, making the answer boxes and manipulatives the correct size.)
- Click “OK.”

Note: The fact that materials produced by other publishers may be referred to on this CD-ROM does not constitute an endorsement of the content or theological position of materials produced by such publishers. Any references and ancillary materials are listed as an aid to the student or the teacher and in an attempt to maintain the accepted academic standards of the publishing industry.

**MATH 6 Teacher's Toolkit CD**  
**For use with MATH 6 Third Edition**

**Coordinating Authors**

Kathleen Hynicka  
Carol Satterfield

**Authors**

Gina Bradstreet  
Renee Cancino  
Sharon V. Fisher  
Tammie Jacobs  
Sandra Kauffman  
Susan J. Lehman  
Charlene McCall  
Kelly A. Payne  
Rosemaria Rosier  
Leah Sargent

**Project Editors**

Carolyn Cooper  
Kristin McClanahan  
Virginia Nutz  
Debbie L. Parker

**Project Manager**

Jeremy Patterson

**CD Face Designer**

Drew Fields

**Designer**

Duane Nichols

**Page Layout**

Katherine Cooper  
Maribeth Hayes

**CD Production**

MPS Limited

**Illustrator**

Courtney Godbey Wise

**Permissions**

Lilia Kielmeyer

Teaching Visuals photo credits appear on the individual pages.

Produced in cooperation with the Bob Jones University School of Education and Bob Jones Academy.

BJU Press grants the original purchaser a limited license to copy pages from this CD for use in his classroom. Further reproduction or distribution shall be a violation of this license. Copies may not be sold.

Adobe® and Reader® are registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

© 2011 BJU Press  
Greenville, South Carolina 29614

Manufactured in the United States of America  
All rights reserved

ISBN: 978-1-60682-113-8 (Teacher's Edition with CD)



# PHOTO CREDITS

The following agencies and individuals have furnished materials to meet the photographic needs of this textbook. We wish to express our gratitude to them for their important contribution.

Alamy  
American Red Cross  
Associated Press  
Bigstock  
BJU Photo Services  
Boone County Historical Society  
Cleveland State University  
Randy Cornelius  
Department of Defense  
Dreamstime

Fotolia  
Getty Images  
J. Aaron Greene  
iStockphoto  
Landov  
Doug Mahugh  
Troy Manning  
Mount Calvary Baptist Church  
NASA  
National Park Service (NPS)

NOAA  
PhotoDisc  
Stansport  
Thinkstock  
Del Thompson  
Unusual Films  
U.S. Navy  
Wikigallery  
Wikimedia Commons  
Wikipedia

## Chapter 1

Getty Images/iStockphoto/Thinkstock 6; ©iStockphoto.com/ PeaceLilyPhotography 15; ©iStockphoto.com/lillis photography 18; ©iStockphoto.com/panopticum 19; Getty Images/Hemera/Thinkstock 22

## Chapter 2

Doug Mahugh 36; NPS 40; Troy Manning 45

## Chapter 3

Barry Williams/Getty Images 53; Getty Images/iStockphoto/Thinkstock 55; ©iStockphoto.com/Donald Gruener 57; © iStockphoto.com/ExcellentPhoto 62; Photo courtesy of the American Red Cross. Photographer: Daniel Cima 64; Photo courtesy of the American Red Cross. All rights reserved. 65; JORGE SILVA/Reuters / Landov 66; Getty Images/Brand X Pictures/Thinkstock 67; Hemera/Thinkstock 68

## Chapter 4

Dorling Kindersley/Getty Images 77; ©iStockphoto.com/James Benet 79; DoD photo by Tech. Sgt. James L. Harper Jr., U.S. Air Force 81; U.S. Navy 86; REUTERS/Luis Enrique Ascui/Landov 88; Courtesy of Stansport, Inc. 92; Getty Images/iStockphoto/Thinkstock 93

## Chapter 5

Denis Lachimovschi/Bigstock.com 103; Boone County Historical Society, Boone, Iowa 107; Getty Images/iStockphoto/Thinkstock 108; iStockphoto/Thinkstock 112; © Philip Scalia / Alamy 114

## Chapter 6

Getty Images/iStockphoto/Thinkstock 137

## Chapter 7

Getty Images/iStockphoto/Thinkstock 151, 153; ©iStockphoto.com/Iztok Noc 152; © Saksoni - Fotolia.com 154; Courtesy of Cleveland State University 155; ©iStockphoto.com/Creativeye99 161

## Chapter 8

NOAA 177; ©iStockphoto.com/topdeq 181; ©iStockphoto.com/Fotolinchen 182; ©iStockphoto.com/yuhirao 188

## Chapter 9

©iStockphoto.com/Vstock 192; iStockphoto/Thinkstock 194, 199; Jupiterimages/Comstock/Thinkstock 200; Auguste Eugene Leray/Wikigallery/Public Domain 204; ©iStockphoto.com/Arand 206; © Jeff Schultes - Fotolia.com 207; © Rechitan Sorin/Dreamstime.com 208

## Chapter 10

©iStockphoto.com/clu 214; Getty Images/Digital Vision/Steve Mason/Thinkstock 216; Getty Images/Hemera/Thinkstock 217; © Jason Lee - Fotolia.com 219; Courtesy of Randy Cornelius 222; U.S. Navy/Wikimedia Commons/Public Domain 233

## Chapter 12

© Gary718/Dreamstime.com 263

## Chapter 13

Getty Images/PhotoObjects.net/Zedcor Wholly Owned/Thinkstock 286; Getty Images/iStockphoto/Thinkstock (both) 294

## Chapter 14

Ryan McVay/Photodisc/Thinkstock 304; www.istockphoto.com 306 (left), 310 (top right); © iStockphoto.com/EuToch/BJU Photo Services 306 (right); NASA 307; ©iStockphoto.com/Frances Twitty 309; BJU Photo Services 310 (top left), 316 (left, center); Getty Images/Stockbyte/John Foxx/Thinkstock 310 (bottom); ©iStockphoto.com/Platinus 311 (top); Del Thompson 311 (bottom); © Derek Ramsey/Wikimedia Commons/GNU FDL 1.2 315; www.istockphoto.com/© Jaimie Duplass. Image from BigStockPhoto.com 316 (right); © Green Lane/Wikimedia Commons/GNU FDL CC BY-SA 3.0 319

## Chapter 15

J. Aaron Greene 335; Mike Theiss/National Geographic/Getty Images 339; ©iStockphoto.com/Gene Chutka 341; © Rebecca Hanson – Fotolia 348

## Chapter 16

Getty Images/Zedcor Wholly Owned/PhotoObjects.net/Thinkstock 359, 360, 364, 367; Getty Images/Liquidlibrary/Thinkstock 365 (left); Getty Images/Comstock Images/Thinkstock 365 (center left); BJU Photo Services 365 (center right, right); NPS 372

## Chapter 17

Getty Images/iStockphoto/Thinkstock 377, 382, 383; © Fionadeato.../Dreamstime.com 378; Getty Images/Comstock/Thinkstock 380; Unusual Films 381; NOAA/Wikimedia Commons 384; Getty/PhotoDisc 385; Charlotte Observer/Contributor/McClatchy-Tribune/MCT via Getty Images 387; Getty Images/Pixland/Thinkstock 388; Courtesy of Mount Calvary Baptist Church 391; Wikipedia/Qfl247 395; Getty Images/Comstock/Thinkstock 396

## Daily Review

© iStockphoto.com/christopherconrad 421