

LESSONS
FORA
LIVING
EDUCATION Ave [3]

Angela O'Dell
\& Kyrsten Carlson

## MASTERBOOKS <br> -CURRICULUM

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## Dedicated to Grace, Ellie, Sully, and Zeb

And to Erin and Kevin, who have the strength to show the love of Jesus, which conquers ALL fear and heals all wounds. You are precious in His sight.


## Author Bio:

As a homeschooling mom and author, Angela O'Dell embraces many aspects of the Charlotte Mason method yet knows that modern children need an education that fits the needs of this generation. Based upon her foundational belief in a living God for a living education, she has worked to bring a curriculum that will reach deep into the heart of home-educated children and their families. She has written over 20 books, including her history series and her math series. Angela's goal is to bring materials that teach and train hearts and minds to find the answers for our generation in the never-changing truth of God and His Word.

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## Using This Course

Features: The suggested weekly schedule enclosed has easy-to-manage lessons that guide the reading, worksheets, and all assessments. The pages of this course are perforated and three-hole punched so materials are easy to tear out, hand out, grade, and store. Teachers are encouraged to adjust the schedule and materials needed in order to best work within their unique educational program.

Lesson Scheduling: Students are instructed to read the pages in their book and then complete the corresponding section provided by the teacher. Assessments that may include worksheets and activities are given at regular intervals with space to record each grade. Space is provided on the weekly schedule for assignment dates, and flexibility in scheduling is encouraged. Teachers may adapt the scheduled days per each unique student situation. As the student completes each assignment, this can be marked with an " X " in the box.

| (3) | Approximately 30 minutes per lesson, five days a week, <br> for 36 weeks |
| :---: | :--- |
| Solution manual available in back of book |  |
| Review sections can be used as quizzes |  |
| Worksheets are included for each section |  |
| Designed for grade 3 in a one-year course |  |

## Course Description

Welcome to the third book in the Math Lessons for a Living Education series! You will find that Math Lessons for a Living Education is a unique approach to learning math. A blend of stories, copywork, oral narration, and hands-on experience brings the concepts to life and invites the child to explore the world around them. The tone of this math book is meant to speak personally to each child, and the methods easily adapted to any teaching style.

The first 30 lessons have a story about the twins, teaching through hands-on learning. Sometimes, these lessons are learned by the twins' explorations in nature. After the story, there are exercises for students to practice the lesson they learned and to review what they have learned earlier. The last 6 lessons are focused reviews, covering topics learned throughout the first 30 lessons.
Note: You can supplement the worksheets in the Math for a Living Education series with additional worksheets, activities, and quizzes in Practice Makes Perfect, also available from Master Books.

## Course Objectives: Students completing this course will

$\checkmark$ Review addition and subtraction, and basic numbers up to 100
$\checkmark$ Explore new concepts like, word problems, skip counting, money, and time
$\checkmark$ Learn how to read bar graphs and line graphs, as well as understand basic measurement
$\checkmark$ Identify place values, regrouping concepts, and measurement with a thermometer
$\checkmark$ Narrate the story to their teacher to show their comprehension, "narration" is simply telling the story in one's own words.

## Teaching Mathematics as a Living Subject

This book is the continuing story of Charlie and Charlotte, who are learning that life is full of learning opportunities! As you read their story, students will be drawn into the adventure along with the twins. They will continue to learn about numbers, shapes, place value, adding, and subtracting. They will also learn about geography, and the love of family. They will be invited to join the twins on their living math adventures. I hope you have a grand time on this adventure. Have a wonderful time exploring and learning!
As a teacher and a mother, I have discovered that true education is based on relationships: the relationship the child makes with the amazing concepts in the world around them; the relationship the teacher and the child make with each other; and most importantly and ultimately, the relationship the child makes with their Creator. It is built on discovering the God of the Universe - the One who holds the
universe in His hands but at the same time, lovingly indwells the heart of a little child. The story in Book 3 is meant to reach into a child's world, grab their attentions and invite them into the learning process. The concepts are not taught through drill only, but also through encouraging the student to hone their critical thinking skills and think outside of the box. This curriculum teaches the student math, but it is not result-oriented, focusing only on grades; instead it is skill and process-oriented.
I have discovered that it is in the everyday that we grow and become who we are meant to be. It is in the little discoveries all along the path of life that we grow, learn, develop, and discover who God is and, in turn, see ourselves the way He sees us.

## About Manipulatives

In the back of the book, you will find a manipulatives section. You may wish to prepare these before you start the book. You will need these manipulative resources:
$\square$ contact paperconstruction paperlarge index cardsbrass fastenerscrayons, markers, and colored pencilsglue or pastehole punch and hole reinforcersrings to keep flashcards togethera plastic shoe box with lid in which to store manipulatives
$\square$ stickers to use for flashcards (optional but helpful)pictures from old magazinesposter board (several large pieces)
$\square$ dried beans, buttons, craft sticks, all other counters4 containers for your Place Value Village (1-extra large, 1-large, 1-medium, 1-small)snack-size baggies
$\square$ foot-long ruler (with inches marked)

## Grading Subjective Assignments

Most often with math the grading is very objective. For example, $2+2=4$, and no amount of individual expression changes this answer. However, there are times in this course when the answer may depend on a student's reflections of what he or she has learned on a particular day or in a week of assignments. In these subjective cases, the teacher can base a grade for these responses on several more objective measures. Does the student seem to understand the question and answer it as clearly as possible? Does the answer seem complete or does it fail to answer all aspects of the question? So a student may receive full credit if they seemed to meet all the assignment requirements; may get a passing grade if they meet some of the requirements; or may need to repeat the assignment if they didn't meet any of the requirements.

A - Student showed complete mastery of concepts with no errors.
B - Student showed mastery of concepts with minimal errors.
C - Student showed partial mastery of concepts. Review of some concepts is needed.
D - Student showed minimal understanding of concepts. Review is needed.
F - Student did not show understanding of concepts. Review is needed.

## How to use Everyday Items as Manipulatives

Contrary to popular opinion, you don't need fancy, expensive, and special manipulatives to teach math concepts. What? As shocking as that is, I can personally attest that it is 100 percent true; I've been doing it for years. So how do you turn all those small items that hang around your house or classroom and fill your "junk drawer" into useful math manipulatives? Well, let's start with my favorite, the trusty dried bean! When you are teaching your students place value, dried beans just might become your new best friends. How? Simply follow these steps:

Please take time to familiarize yourself with the Place Value Village before beginning this book. There are more helpful hints on page 331.

When a student is counting $0-9$, simply place single beans into the ONES' house, and
have them write the numbers $0-9$ on their Place Value Village Mat. As we all know, only 9 ones can live in the ONES' house, so all 9 beans jump out of their house and join up with their new friend, Mr. Tenth bean! They all then jump into a snack-size baggie (usable over and over) and go next door, to live in the TENS' house. Repeat this process until you have ten baggies of beans trying to live in the TENS' house. Of course, only nine can live there, so all the baggies of ten get traded in for a HUNDREDS' counter (included in the manipulatives section) and make the move to their new house, the HUNDREDS' house. Dried kidney beans are the best for this, as they are very sturdy! You can also use buttons, paper clips, or basically any small item. They don't even have to be all the same kind of item.

See Angela's video on the Place Value Village: https://www.youtube.com/watch?v=fuZ7Y3fDe7c.
Note regarding Math Fact Family review:
Fact families were introduced in Book 2. Since multiplication and division are introduced in Book 3, it is important that the student be familiar with all of their addition and subtraction families and facts.

```
Example: }5+7=1
    7+5=12
    12-5=7
    12-7=5
```

Making flashcards of these facts is very helpful.

First Semester Suggested Daily Schedule

| Date | Day | Assignment | Due Date | $\checkmark$ Grade |
| :---: | :---: | :---: | :---: | :---: |
| First Semester-First Quarter |  |  |  |  |
| Week 1 | Day 1 | Read Lesson 1 • Pages 15-16 Complete Lesson 1 Exercise 1 • Page 17 |  |  |
|  | Day 2 | Complete Lesson 1 Exercise 2 - Page 18 |  |  |
|  | Day 3 | Complete Lesson 1 Exercise $3 \cdot$ Page 19 |  |  |
|  | Day 4 | Complete Lesson 1 Exercise $4 \cdot$ Page 20 |  |  |
|  | Day 5 | Complete Lesson 1 Exercise 5 • Pages 21-22 |  |  |
| Week 2 | Day 6 | Read Lesson 2 - Pages 23-24 Complete Lesson 2 Exercise 1 • Page 25 |  |  |
|  | Day 7 | Complete Lesson 2 Exercise 2 - Page 26 |  |  |
|  | Day 8 | Complete Lesson 2 Exercise $3 \cdot$ Page 27 |  |  |
|  | Day 9 | Complete Lesson 2 Exercise $4 \cdot$ Page 28 |  |  |
|  | Day 10 | Complete Lesson 2 Exercise $5 \cdot$ Pages 29-30 |  |  |
| Week 3 | Day 11 | Read Lesson 3 • Pages 31-32 <br> Complete Lesson 3 Exercise 1 • Page 33 |  |  |
|  | Day 12 | Complete Lesson 3 Exercise 2 • Pages 34-35 |  |  |
|  | Day 13 | Complete Lesson 3 Exercise 3 - Page 36 |  |  |
|  | Day 14 | Complete Lesson 3 Exercise $4 \cdot$ Page 37 |  |  |
|  | Day 15 | Complete Lesson 3 Exercise 5 - Page 38 |  |  |
| Week 4 | Day 16 | Read Lesson 4 • Page 39 <br> Complete Lesson 4 Exercise 1 • Page 40 |  |  |
|  | Day 17 | Complete Lesson 4 Exercise $2 \cdot$ Page 41 |  |  |
|  | Day 18 | Complete Lesson 4 Exercise 3 - Page 42 |  |  |
|  | Day 19 | Complete Lesson 4 Exercise 4 • Page 43 |  |  |
|  | Day 20 | Complete Lesson 4 Exercise 5 Review Time - Page 44 |  |  |
| Week 5 | Day 21 | Read Lesson 5 - Pages 45-46 <br> Complete Lesson 5 Exercise 1 • Pages 47-48 |  |  |
|  | Day 22 | Complete Lesson 5 Exercise 2 - Page 49 |  |  |
|  | Day 23 | Complete Lesson 5 Exercise 3 - Page 50 |  |  |
|  | Day 24 | Complete Lesson 5 Exercise $4 \cdot$ Pages 51-52 |  |  |
|  | Day 25 | Complete Lesson 5 Exercise 5 - Pages 53-54 |  |  |
| Week 6 | Day 26 | Read Lesson 6 • Pages 55-56 <br> Complete Lesson 6 Exercise $1 \cdot$ Pages 57-58 |  |  |
|  | Day 27 | Complete Lesson 6 Exercise 2 - Page 59 |  |  |
|  | Day 28 | Complete Lesson 6 Exercise 3 - Page 60 |  |  |
|  | Day 29 | Complete Lesson 6 Exercise $4 \bullet$ Page 61 |  |  |
|  | Day 30 | Complete Lesson 6 Exercise 5 Review Time $\bullet$ Page 62 |  |  |



| Date | Day | Assignment | Due Date | $\checkmark$ | Grade |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Week 4 | Day 61 | Read Lesson 13 • Pages 119-120 <br> Complete Lesson 13 Exercise 1 - Pages 121-122 |  |  |  |
|  | Day 62 | Complete Lesson 13 Exercise $2 \cdot$ Pages 123-124 |  |  |  |
|  | Day 63 | Complete Lesson 13 Exercise 3 • Pages 125-126 |  |  |  |
|  | Day 64 | Complete Lesson 13 Exercise $4 \bullet$ Page 127 |  |  |  |
|  | Day 65 | Complete Lesson 13 Exercise $5 \bullet$ Page $128 \cdot$ Recipe - Page 332 |  |  |  |
| Week 5 | Day 66 | Read Lesson $14 \cdot$ Page 129 <br> Complete Lesson 14 Exercise 1 • Page 130 |  |  |  |
|  | Day 67 | Complete Lesson 14 Exercise 2 • Pages 131-132 |  |  |  |
|  | Day 68 | Complete Lesson 14 Exercise $3 \cdot$ Pages 133-134 |  |  |  |
|  | Day 69 | Complete Lesson 14 Exercise $4 \bullet$ Pages 135-136 |  |  |  |
|  | Day 70 | Complete Lesson 14 Exercise 5 Review Time • Pages 137-138 |  |  |  |
| Week 6 | Day 71 | Read Lesson $15 \cdot$ Page 139 <br> Complete Lesson 15 Exercise $1 \cdot$ Pages 140-141 |  |  |  |
|  | Day 72 | Complete Lesson 15 Exercise $2 \cdot$ Pages 142-143 |  |  |  |
|  | Day 73 | Complete Lesson 15 Exercise 3 • Pages 144-145 |  |  |  |
|  | Day 74 | Complete Lesson 15 Exercise $4 \cdot$ Pages 146-147 |  |  |  |
|  | Day 75 | Complete Lesson 15 Exercise 5 Review Time - Page 148 |  |  |  |
| Week 7 | Day 76 | $\begin{aligned} & \text { Read Lesson } 16 \bullet \text { Pages 149-150 } \\ & \text { Complete Lesson } 16 \text { Exercise } 1 \cdot \text { Page } 151 \end{aligned}$ |  |  |  |
|  | Day 77 | Complete Lesson 16 Exercise 2 • Pages 152-153 |  |  |  |
|  | Day 78 | Complete Lesson 16 Exercise 3 • Page 154 |  |  |  |
|  | Day 79 | Complete Lesson 16 Exercise $4 \bullet$ Pages 155-156 |  |  |  |
|  | Day 80 | Complete Lesson 16 Exercise 5 Review Time • Pages 157-158 |  |  |  |
| Week 8 | Day 81 | Read Lesson 17 • Pages 159-160 <br> Complete Lesson 17 Exercise $1 \cdot$ Pages 161-162 |  |  |  |
|  | Day 82 | Complete Lesson 17 Exercise 2 • Pages 163-164 |  |  |  |
|  | Day 83 | Complete Lesson 17 Exercise 3 • Pages 165-166 |  |  |  |
|  | Day 84 | Complete Lesson 17 Exercise $4 \bullet$ Pages 167-168 |  |  |  |
|  | Day 85 | Complete Lesson 17 Exercise 5 Review Time • Pages 169-170 |  |  |  |
| Week 9 | Day 86 | Read Lesson 18 • Pages 171-172 <br> Complete Lesson 18 Exercise 1 - Page 173 |  |  |  |
|  | Day 87 | Complete Lesson 18 Exercise 2 • Pages 174-175 |  |  |  |
|  | Day 88 | Complete Lesson 18 Exercise 3 - Pages 176-177 |  |  |  |
|  | Day 89 | Complete Lesson 18 Exercise 4• Pages 178-179 |  |  |  |
|  | Day 90 | Complete Lesson 18 Exercise 5 Review Time - Page 180 |  |  |  |
|  |  | Mid-Term Grade |  |  |  |

Second Semester Suggested Daily Schedule

| Date | Day | Assignment | Due Date | $\checkmark$ Grade |
| :---: | :---: | :---: | :---: | :---: |
| Second Semester-Third Quarter |  |  |  |  |
| Week 1 | Day 91 | Read Lesson 19 • Pages 181-182 <br> Complete Lesson 19 Exercise 1 - Page 183 |  |  |
|  | Day 92 | Complete Lesson 19 Exercise 2 • Pages 184-185 |  |  |
|  | Day 93 | Complete Lesson 19 Exercise 3 • Pages 186-187 |  |  |
|  | Day 94 | Complete Lesson 19 Exercise 4 4 Page 188 |  |  |
|  | Day 95 | Complete Lesson 19 Exercise 5 Review Time • Pages 189-190 |  |  |
| Week 2 | Day 96 | Read Lesson 20 • Pages 191-192 <br> Complete Lesson 20 Exercise $1 \cdot$ Pages 193-194 |  |  |
|  | Day 97 | Complete Lesson 20 Exercise 2 • Pages 195-196 |  |  |
|  | Day 98 | Complete Lesson 20 Exercise 3 - Page 197 |  |  |
|  | Day 99 | Complete Lesson 20 Exercise 4 - Page 198 |  |  |
|  | Day 100 | Complete Lesson 20 Exercise 5 Review Time • Pages 199-200 |  |  |
| Week 3 | Day 101 | Read Lesson 21 • Page 201 <br> Complete Lesson 21 Exercise 1 Review Week • Page 202 |  |  |
|  | Day 102 | Complete Lesson 21 Exercise 2 Review Week • Page 203 |  |  |
|  | Day 103 | Complete Lesson 21 Exercise 3 Review Week • Page 204 |  |  |
|  | Day 104 | Begin Lesson 21 Exercise 4-5 Review Week • Page 205 |  |  |
|  | Day 105 | Finish Lesson 21 Exercise 4-5 Review Week • Page 206 |  |  |
| Week 4 | Day 106 | Read Lesson 22 • Pages 207-208 <br> Complete Lesson 22 Exercise 1 • Pages 209-210 |  |  |
|  | Day 107 | Complete Lesson 22 Exercise $2 \cdot$ Pages 211-212 |  |  |
|  | Day 108 | Complete Lesson 22 Exercise 3 - Page 213 |  |  |
|  | Day 109 | Complete Lesson 22 Exercise 4 - Page 214 |  |  |
|  | Day 110 | Complete Lesson 22 Exercise 5 Review Time • Pages 215-216 |  |  |
| Week 5 | Day 111 | Read Lesson 23 • Page 217 <br> Complete Lesson 23 Exercise 1 • Pages 218-219 |  |  |
|  | Day 112 | Complete Lesson 23 Exercise 2 • Page 220 |  |  |
|  | Day 113 | Complete Lesson 23 Exercise 3 • Pages 221-222 |  |  |
|  | Day 114 | Complete Lesson 23 Exercise $4 \cdot$ Pages 223-224 |  |  |
|  | Day 115 | Complete Lesson 23 Exercise 5 Review Time • Pages 225-226 |  |  |
| Week 6 | Day 116 | Read Lesson $24 \bullet$ Page 227 <br> Complete Lesson 24 Exercise 1 • Page 228 |  |  |
|  | Day 117 | Complete Lesson 24 Exercise 2 • Pages 229-230 |  |  |
|  | Day 118 | Complete Lesson 24 Exercise 3 - Pages 231-232 |  |  |
|  | Day 119 | Complete Lesson 24 Exercise $4 \bullet$ Pages 233-234 |  |  |
|  | Day 120 | Complete Lesson 24 Exercise 5 Review Time • Pages 235-236 |  |  |


| Date | Day | Assignment | Due Date | $\checkmark$ | Grade |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Week 7 | Day 121 | Read Lesson 25 • Page 237 <br> Complete Lesson 25 Exercise 1 - Page 238 |  |  |  |
|  | Day 122 | Complete Lesson 25 Exercise $2 \bullet$ Pages 239-240 |  |  |  |
|  | Day 123 | Complete Lesson 25 Exercise 3 - Page 241 |  |  |  |
|  | Day 124 | Complete Lesson 25 Exercise $4 \bullet$ Pages 242-243 |  |  |  |
|  | Day 125 | Complete Lesson 25 Exercise 5 Review Time • Pages 244-246 |  |  |  |
| Week 8 | Day 126 | Read Lesson 26 • Page 247 <br> Complete Lesson 26 Exercise 1 • Page 248 |  |  |  |
|  | Day 127 | Complete Lesson 26 Exercise 2 • Pages 249-250 |  |  |  |
|  | Day 128 | Complete Lesson 26 Exercise 3 • Pages 251-252 |  |  |  |
|  | Day 129 | Complete Lesson 26 Exercise $4 \cdot$ Pages 253-254 |  |  |  |
|  | Day 130 | Complete Lesson 26 Exercise 5 Review Time • Pages 255-256 |  |  |  |
| Week 9 | Day 131 | Read Lesson 27 • Page 257 <br> Complete Lesson 27 Exercise 1 Review Week • Page 258 |  |  |  |
|  | Day 132 | Complete Lesson 27 Exercise 2 Review Week - Page 259 |  |  |  |
|  | Day 133 | Complete Lesson 27 Exercise 3 Review Week • Page 260 |  |  |  |
|  | Day 134 | Complete Lesson 27 Exercise 4 Review Week • Page 261 |  |  |  |
|  | Day 135 | Complete Lesson 27 Exercise 5 Review Week • Page 262 |  |  |  |
| Second Semester-Fourth Quarter |  |  |  |  |  |
| Week 1 | Day 136 | Read Lesson 28 • Pages 263-264 Complete Lesson 28 Exercise 1 - Page 265 |  |  |  |
|  | Day 137 | Complete Lesson 28 Exercise 2 - Page 266 |  |  |  |
|  | Day 138 | Complete Lesson 28 Exercise 3 - Pages 267-268 |  |  |  |
|  | Day 139 | Complete Lesson 28 Exercise 4 • Page 269 |  |  |  |
|  | Day 140 | Complete Lesson 28 Exercise 5 Review Time • Page 270 |  |  |  |
| Week 2 | Day 141 | Read Lesson 29 • Page 271 <br> Complete Lesson 29 Exercise 1 • Pages 272-273 |  |  |  |
|  | Day 142 | Complete Lesson 29 Exercise 2 • Pages 274-275 |  |  |  |
|  | Day 143 | Complete Lesson 29 Exercise 3 • Pages 276-277 |  |  |  |
|  | Day 144 | Complete Lesson 29 Exercise $4 \bullet$ Pages 278-279 |  |  |  |
|  | Day 145 | Complete Lesson 29 Exercise 5 Review Time • Page 280 |  |  |  |
| Week 3 | Day 146 | Read Lesson 30 • Pages 281-282 <br> Complete Lesson 30 Exercise 1 • Pages 283-284 |  |  |  |
|  | Day 147 | Complete Lesson 30 Exercise $2 \bullet$ Pages 285-286 |  |  |  |
|  | Day 148 | Complete Lesson 30 Exercise 3 - Pages 287-288 |  |  |  |
|  | Day 149 | Complete Lesson 30 Exercise $4 \cdot$ Pages 289-290 |  |  |  |
|  | Day 150 | Complete Lesson 30 Exercise 5 Review Time • Pages 291-292 |  |  |  |


| Date | Day | Assignment | Due Date | $\checkmark$ | Grade |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Week 4 | Day 151 | Read Lesson 31 • Page 293 <br> Complete Lesson 31 Exercise 1 Review Week • Page 294 |  |  |  |
|  | Day 152 | Complete Lesson 31 Exercise 2 Review Week • Page 295 |  |  |  |
|  | Day 153 | Complete Lesson 31 Exercise 3 Review Week • Page 296 |  |  |  |
|  | Day 154 | Complete Lesson 31 Exercise 4 Review Week • Page 297 |  |  |  |
|  | Day 155 | Complete Lesson 31 Exercise 5 Review Week • Page 298 |  |  |  |
| Week 5 | Day 156 | $\begin{aligned} & \text { Read Lesson } 32 \text { • Page } 299 \\ & \text { Complete Lesson } 32 \text { Exercise } 1 \text { Review Week • Page } 300 \\ & \hline \end{aligned}$ |  |  |  |
|  | Day 157 | Complete Lesson 32 Exercise 2 Review Week • Page 301 |  |  |  |
|  | Day 158 | Complete Lesson 32 Exercise 3 Review Week • Page 302 |  |  |  |
|  | Day 159 | Complete Lesson 32 Exercise 4 Review Week • Page 303 |  |  |  |
|  | Day 160 | Complete Lesson 32 Exercise 5 Review Week • Page 304 |  |  |  |
| Week 6 | Day 161 | Read Lesson 33 • Page 305 <br> Complete Lesson 33 Exercise 1 Review Week • Page 306 |  |  |  |
|  | Day 162 | Complete Lesson 33 Exercise 2 Review Week • Page 307 |  |  |  |
|  | Day 163 | Complete Lesson 33 Exercise 3 Review Week • Page 308 |  |  |  |
|  | Day 164 | Complete Lesson 33 Exercise 4 Review Week • Page 309 |  |  |  |
|  | Day 165 | Complete Lesson 33 Exercise 5 Review Week • Page 310 |  |  |  |
| Week 7 | Day 166 | $\begin{aligned} & \text { Read Lesson } 34 \text { • Page } 311 \\ & \text { Begin Lesson } 34 \text { Exercise 1-2 Review Week • Page } 312 \\ & \hline \end{aligned}$ |  |  |  |
|  | Day 167 | Finish Lesson 34 Exercise 1-2 Review Week • Page 312 |  |  |  |
|  | Day 168 | Complete Lesson 34 Exercise 3 Review Week • Page 313 |  |  |  |
|  | Day 169 | Complete Lesson 34 Exercise 4 Review Week • Page 314 |  |  |  |
|  | Day 170 | Complete Lesson 34 Exercise 5 Review Week Pages 315-316 |  |  |  |
| Week 8 | Day 171 | Read Lesson 35 • Page 317 <br> Complete Lesson 35 Exercise 1 Review Week • Pages 318-319 |  |  |  |
|  | Day 172 | Complete Lesson 35 Exercise 2 Review Week - Page 320 |  |  |  |
|  | Day 173 | Complete Lesson 35 Exercise 3 Review Week - Page 321 |  |  |  |
|  | Day 174 | Complete Lesson 35 Exercise 4 Review Week • Page 322 |  |  |  |
|  | Day 175 | Complete Lesson 35 Exercise 5 Review Week • Pages 323-324 |  |  |  |
| Week 9 | Day 176 | Read Lesson 36 • Page 325 <br> Complete Lesson 36 Exercise 1 Review Week • Page 326 |  |  |  |
|  | Day 177 | Complete Lesson 36 Exercise 2 Review Week • Page 327 |  |  |  |
|  | Day 178 | Complete Lesson 36 Exercise 3 Review Week • Page 328 |  |  |  |
|  | Day 179 | Complete Lesson 36 Exercise 4 Review Week • Page 329 |  |  |  |
|  | Day 180 | Complete Lesson 36 Exercise 5 Review Week • Page 330 |  |  |  |
|  |  | Final Grade |  |  |  |

## Special Puzzle:

When the 1 is folded to form a house, which house of 2 through 9 will it make?


## Review of Place Value, Odds and Evens, Counting by 2s, 5 s , 10s

The sweet-smelling, spring breeze fluttered the light blue curtains in the window of the schoolroom. The sound of birds chirping drifted in from outside, along with Dad's cheerful whistling under the window, as he uncovered the central air conditioning unit. Charlie sighed and tugged on his coonskin cap, which seemed to be a permanent fixture on his head. He did not have the slightest clue how he was ever going to finish his schoolwork today! He sent a sideways glance toward Charlotte. She was staring at the ceiling, seemingly deep in thought. Charlie sighed again. It was the last week of school before summer break. Mom had told them at breakfast that morning that she only had a few assignments left for them to finish up before they left on their trip.

Their trip! Charlie wiggled with excitement. The very next week they were going to fly on an airplane, with Mom, Dad, and their baby sister, Ella, all the way to Lima, Peru! "Excited" did not even begin to describe how Charlie felt. Mom and Dad had told them that they were all going down to a children's home to meet Natalia and Hairo! Dad was going to spend the summer - which is winter in Peru - helping to build a clinic close to the children's home. He was also going to finish the last wing of the home. Mom and the children were going along to help with some large sewing projects for the children, the clinic, and the mission society that helped bring comfort to the poor in Lima.
"Charlie, Mom says that we can be done for the day if we just finish the copywork of our poem, complete our math worksheet, and do our silent reading. Are you finished yet?" Charlotte's voice brought Charlie back to the classroom. He sighed again and tugged his hat's tail.
"No, I still need to finish this math work. Are you done yet, Charlotte?" he asked his twin sister.


"Almost. I only have to finish my copywork. Let's work quickly, Charlie. Mom says that we can help get ready for our trip if we get done in time!" Charlotte's eyes sparkled at the thought of meeting Natalia. She had been writing letters all winter to her little friend who lived in the children's home, and she had started calling her "Natty." Natty had liked the idea of Charlotte's name for her, and the girls had made many plans for Charlotte's visit.
"Ok, Charlotte, I'll hurry, so we can help," Charlie settled into his seat with a determined look on his face. Mom had been working on the habit of paying attention with the children this year. Charlie repeated their school motto to himself whenever he was tempted to shirk his responsibility, "I am, I can, I ought, I will!" Picking up his pencil, he set to work on his math sheet. Mom really had given the children a lighter schoolwork load this week; she knew they were excited about their trip. Charlie was determined not to let her down. The children were working on some end-of-the-year review in math. Mom had given them worksheets covering place value, odd and even numbers, and skip counting by $2 \mathrm{~s}, 5 \mathrm{~s}$, and 10 s .

Get your Place Value Village and the Place Value Counting Mat (both found in the Manipulatives Section in the back).
Practice using the Place Value Village to count to 100 . Have the student use their manipulatives to show each number that they write on the mat. See directions on page 7 or page 331.


| 100 | 101 | 102 | 103 | 104 | 105 | 106 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$107 \quad 108 \quad 109$ ||0 ||| ||2 ||3 ||
$\begin{array}{lllllllll}115 & 116 & 117 & 118 & 119 & 120 & 121 & 122\end{array}$
$\begin{array}{lllllll}123 & 124 & 125 & 126 & 127 & 128 & 129\end{array}$
$\begin{array}{lllllll}\mid 30 & |3| & \mid 32 & \mid 33 & \mid 34 & \mid 35 & 136\end{array}$
137
138
139
140

142
143

$\qquad$
$\qquad$

Get Your Hundreds Counters (in the Manipulatives Section). Use your Place Value Village to show and understand the numbers 100-150.

Copywork of Numbers
$15 \mid$
152
153
154
155
156
157
$\qquad$
$\begin{array}{llllllll}158 & 159 & 160 & 161 & 162 & 163 & 164 & 165\end{array}$
$\begin{array}{llllllll}166 & 167 & 168 & 169 & 170 & 171 & 172 & 173\end{array}$
$174 \quad 175$
176
177
178
179
180


| 194 | 195 | 196 | 197 | 198 | 199 | 200 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\qquad$
$\square$

Use Hundreds Counters. Use your Place Value Village to show and understand the numbers 151-200.

Narrate to your teacher what makes an even number and what makes an odd number.

## Check Even or Odd.

Remember, even numbers can be divided exactly by two and odd numbers can't be.

| 239 | $\square$ even | $\square$ odd |
| ---: | :--- | :--- |
| 345 | $\square$ even | $\square$ odd |
| 12,789 | $\square$ even | $\square$ odd |
| 12 | $\square$ even | $\square$ odd |
| 188 | $\square$ even | $\square$ odd |
| 2,678 | $\square$ even | $\square$ odd |
| 3,921 | $\square$ even | $\square$ odd |
| 9,234 | $\square$ even | $\square$ odd |

## Odds and Evens

With a red pencil or crayon, circle all of the even numbers in the numbers you copied in Exercises 2 and 3. What does each number end in?


With a blue pencil or crayon, circle all of the odd numbers in the numbers you copied in Exercises 2 and 3. What does each number end in?

Get your My 100's Chart (you laminated from the Manipulatives Section) for today's lesson.
Practice counting by $\mathbf{2 s}, \mathbf{5 s}$, and 10 s. Wipe your chart clean between each.
Using the My 100s Chart, use a green washable marker to color all the numbers you say as you count by 2 s . Look at the last digit and write the pattern.


Now use a blue marker to color in all of the numbers you say as you count by 5 s. Look at the last digit and write the pattern.

With a red marker, color all the numbers you say as you count by 10s. What number does each one end with?


Narrate to your teacher the patterns you see in each sequence.

This is extremely important. Skip counting is "pre-multiplication." We will be learning multiplication a little later in this book, and a firm grasp of skip counting will help tremendously.

## Extra Practice:

Use different colored markers to color in the numbers as you count by $3 \mathrm{~s}, 4 \mathrm{~s}, 6 \mathrm{~s}, 7 \mathrm{~s}, 8 \mathrm{~s}$, and 9 s . Wipe your chart clean between each one. Discuss the patterns you see in the sequences.

## Project! This is not optional!

Make a poster (to hang where student can see) of the skip counting sequences ( $1 \mathrm{~s}-10 \mathrm{~s}$ ). Make it colorful and fun - and use it to review often. The better the student learns their skip counting, the faster they will learn their multiplication facts! Start now! Work on this project over the next two weeks.
Example:

| Counn <br> by... | Skip Counting |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

# Introducing Multiplication of $0,1,2$, and 5 

The day had finally arrived to help move the children into their new dorm room! Dad had announced at supper the night before that the fourth and final dorm hall was completely finished. A great cheer filled the dining room as the children and their caregivers gave Dad and the other workers a standing ovation. Charlie beamed; he was so proud of his dad! He wanted to be just like him when he grew up.

The twins joined the other children for their usual Bible hour and school time. Everyone was having a hard time keeping their minds on their work. Hairo and Natty were two of the children who would be moving into the new dorm rooms. Thankfully, the morning seemed to go quickly, and soon the children were filing into the dining room for their noon meal.
"Charlotte, do you think you could help me make my new bed?" Natty asked as they took their seats side-by-side with their lunch trays.
"Sure, Natty!" Charlotte smiled at the smaller girl. She knew Natty was a bit nervous about her new bed. It was the top bunk, and to the little girl, it seemed very high. "I'll help you, and Charlie can help Hairo, ok? We will have all of your clothes put away and everything taken care of by supper. You'll see!" Charlotte reassured her little friend. Mom had told her this morning that Natty might be nervous about moving to the new room.

Natty's life had been hard, and she had a difficult time with change. Charlotte hoped that she would be able to help Natty adjust to the new room and bed. She gave Natty's shoulder a squeeze and was rewarded with a smile.

After lunch, Mom stood up and rang the bell to get everyone's attention.
"We are moving 40 children into the new dorm hall this afternoon. We need volunteers to help with distributing bedding, towels, toiletries, and pillows. If you are able to help, please meet in the caregiver's apartment in the new dorm hall after lunch. Thank you all!"

As the volunteers gathered, Mom showed them the huge stacks of bedding, towels, and pillows. The twins wanted to help count the new toothbrushes, but the noise made it difficult to keep on track. Mom saw their predicament and came to their rescue.

"Here, children, this will help," she said as she showed them how to separate the toiletries into groups of 2. "This is a faster way to add. See? If you count by twos, it's the same as adding the groups of two. Like this: $2+2+2+2+2=10$, or you can say $5 \times 2=$ 10 , which means five groups of 2 ."

$2+2+2+2+2=10$

$$
2,4,6,8,10
$$

This sign means multiply.
5 groups of 2 toothbrushes

Charlie's eyes sparkled! He loved how numbers worked together. He quickly separated the towels into groups of 5. If the girls could use this new concept to count the toothbrushes, then he could use it to count the towels. Four groups of 5 towels each is 20 towels!

$$
\begin{gathered}
5+5+5+5=20 \\
5,10,15,20 \\
4 \text { groups of } 5 \text { towels } 4 \times 5=20
\end{gathered}
$$

## Let's Practice!

Multiplication is really just repeated addition. The children found that it was easier to use multiplication than to add the same number over and over again.
Study these multiplication facts. Draw pictures to show the numbers and write the matching addition fact. The first two are done for you.

$$
\begin{aligned}
& 2 \times 2=4 \\
& 2 \times 3=6
\end{aligned}
$$

$$
\hat{y}_{2} \vec{\xi}+\hat{z}^{n} \hat{z}=4
$$

$$
\hat{\xi}_{2}+\hat{v}_{2}+\hat{z}_{2}=6
$$

$2 \times 4=8$
$2 \times 5=10$
$2 \times 6=12$
$2 \times 7=14$
$2 \times 8=16$
$2 \times 9=18$
$2 \times 10=20$

## Math Facts for Copywork:

In your copywork notebook, write the $2 s$ multiplication facts from the "Multiplication Facts for Copywork" in the back of the book.

## Review:



What time is it?

What time will it be in one hour?

## Mental Math:

Think and say the answer as your teacher reads these math sentences.

$$
\begin{array}{ll}
7-3+2-1= & 9-2+4-1= \\
4+5+2-3= & 3-2+4=
\end{array}
$$

Important concept! When we multiply two numbers together, we can put those two numbers in any order, and the answer will be the same.
Example:


As you can see, 1 group of 3 eggs is the same number as 3 groups of 1 egg.
The numbers that we multiply together are called "factors," and the answer to a multiplication problem is called the "product."

For Copywork: copy this sentence about multiplication problems.
We can place the factors in any order, and the product will remain the same.
$\qquad$
$\qquad$

Practice making these groups with beans or blocks. Write the answers.
$1 \times 3=$
$1 \times 5=$ $\qquad$ $\times 10=$ $\qquad$
$2 \times 1=$
$4 \times 1=$
$6 \times 1=$ $\qquad$

You have probably noticed that when 1 is a factor, the product is always the same as the other factor. This is a rule that you need to remember.

## Let's Practice!

In our last exercise, we learned that when 1 is a factor, the product (answer) is always the same as the other factor. In today's exercise, we are going to talk about what happens when 2 is one of the factors. Turn back to Exercise 1 of this lesson, and study the multiplication equations that you illustrated. What patterns do you see?

Yes! When we multiply with 2 as one of the factors, we simply double the other factor! Fill in the missing addition facts below. The first one is done for you.


$+$ $\qquad$ $=$

$\qquad$ $+$ $\qquad$ $=$

$$
2 \times 2=4
$$


$\qquad$
$\qquad$ $=$
$2 \times 5=10$

For Copywork, write the following sentence:
When we multiply with 2 as one of the factors, we double the other factor.

## Review!

$$
\begin{array}{rrrr}
326 & 891 & 752 & 201 \\
+596 & 632 & -161 & -167 \\
\hline & +159 & & \\
\hline
\end{array}
$$

Round these numbers to the nearest ten. Circle the correct ten.
34
30 or 40
45
40 or 50
81
80 or 90
57
50 or 60

## Math Facts Review

We have learned several multiplication concepts so far this week. Let's review them before we learn a little more! With manipulatives, show your teacher each one of the following concepts. Practice these concepts until you are comfortable with them.

1. Multiplication is like repeated addition. (Shown in Exercise 1)
2. In a multiplication problem, we can place the factors in any order and the product will remain the same. (Shown in Exercise 2)
3. When we multiply with 2 as one of the factors, we double the other factor. (Shown in Exercise 3)

New Concept! Copy this new concept on the lines below it.
When zero is a factor in a multiplication equation, the product is always zero.
$\qquad$
$\qquad$

We know that the first factor in a multiplication equation stands for how many groups, and the second factor stands for how many in each group. If zero is either one of the factors, the answer is always zero.
Study the equations below:

$$
\begin{array}{ll}
2 \times 0=0 & \text { Two groups of zero is zero } \\
0 \times 9=0 & \text { Zero groups of nine is zero } \\
0 \times 7=0 & \text { Zero groups of seven is zero } \\
4 \times 0=0 & \text { Four groups of zero is zero }
\end{array}
$$

Now you try it! Show your teacher this new concept.

## Review!

Circle the factors in the multiplication equations.

$$
\begin{array}{ll}
4 \times 2=8 & 2 \times 3=6 \\
2 \times 0=0 & 10 \times 2=20
\end{array}
$$

When we have two multiplication equations that are the same, other than the order of the factors, we call them "twins." Match the twins. Draw a line to show the matching facts.

$$
\begin{array}{ll}
2 \times 3=6 & 2 \times 4=8 \\
4 \times 2=8 & 5 \times 2=10 \\
2 \times 5=10 & 2 \times 0=0 \\
0 \times 2=0 & 2 \times 6=12 \\
6 \times 2=12 & 3 \times 2=6
\end{array}
$$

Multiplication by 5 s is one of the simplest multiplication concepts.
Count by 5 to fill in these facts.

$$
\int_{(5 \times 1)}^{5} \overline{(5 \times 2)} \overline{(5 \times 3)} \overline{(5 \times 4)} \overline{(5 \times 5)} \quad \overline{(5 \times 6)} \quad \overline{(5 \times 7)} \quad \overline{(5 \times 8)} \quad \overline{(5 \times 9)} \quad 50
$$

When we count nickels, we are multiplying by 5 .
5

15
20
25
 $5 \times 5=25$

Use your poster that you created in Lesson 1 to review the skip counting sequences. Just like you saw earlier in this exercise, the multiplication facts are the same as skip counting.

## Project:

Over the next week, you will be making another poster showing the multiplication facts. Start working on it now by showing the x 1 s and x 2 s . Leave room on the poster to add the x 5 s and x 10 s soon.

## More Measurement Concepts

Rain pattered softly on the window, nothing like the storm torrents of the week before. It was a cozy, sleepy afternoon, and Mom was surrounded by children. Natty and Hairo had become permanent fixtures with the family. They had spent the nights during the storm with the twins in order to make room for others who needed beds. Now they had gained permission to spend the rest of the twins' visit with the family.

Charlotte noticed that her little friend had almost stopped her nervous habit of twiddling her hair. To Charlotte, Natty seemed much more secure since their arrival that spring. What would Natty be like when they left?
Right now, Natty was snuggled between Mom and
Charlotte, while they looked through a picture book together.

Charlie and Hairo were laying on the floor working on a puzzle of North America and South America. The puzzle had been a present
 from the twins to Hairo and Natty last Christmas. As the boys fitted the puzzle pieces together, they chatted about how far the twins home was from Lima, Peru.

Charlotte watched her mother cuddle with Natty. The little girl had become like Charlotte's little sister. There was a lump in her throat, but she smiled and said cheerfully, "Charlie, tell Natty how many feet are in a mile! Natty, Charlie loves to measure everything!"


## Let's Practice!

We have learned a lot about measurement, and today we are going to learn some new measurement concepts. For copywork:

5,280 feet $=1$ mile
$\qquad$
$\qquad$

1,760 yards $=1$ mile $\qquad$

2,000 pounds $=1$ ton $\qquad$

$$
\frac{1}{4} \text { of } 16=
$$

$\frac{1}{3}$ of $21=$ $\qquad$ $\frac{1}{4}$ of $32=$ $\qquad$

## Estimate.

$$
\begin{array}{rr}
582 \text { rounds to } & 68 \text { rounds to } \\
+374 \text { rounds to } & +53 \text { rounds to } \\
\hline
\end{array}
$$ the estimated sum: ___ the estimated sum: $\qquad$

Multiply and divide.
5
9
$4 \longdiv { 2 0 }$
$4 \longdiv { 2 8 }$
$3 \longdiv { 2 7 }$

Mental Math:

$$
\begin{array}{ll}
7+1-3+8= & 5 \times 7= \\
36 \div 9= & 5+5+6-5=
\end{array}
$$

## Let's Practice and Review:

Fill in the blank.

$$
\text { I mile }=\ldots \text { feet }
$$

$\ldots$ yards $=1$ mile

$$
\mid \text { ton }=\ldots \text { pounds }
$$

Write the value of the underlined number. The first one is done for you.
1.656
6.951
74,381
| $\underline{\underline{2}}, 130$
6.432,050 600

Add.

$$
\begin{array}{r}
762 \\
357 \\
+\quad 982 \\
\hline
\end{array}
$$

Subtract.

$$
\begin{array}{rr}
900 & 402 \\
-620 & -101 \\
\hline
\end{array}
$$


$\qquad$ afternoon
a.m. p.m.
$\square \quad \square$


Find the perimeter.
___ feet

Write,,+- x , or $\div$ in the blank.
18
_ $2=9$
$7 \_9=16$
$5 \_4=20$
$15 \_7=8$
$3 \_5=15$
$13 \_5=8$

Round to the tens. Round to the hundreds. Round to the thousands.
27 $\qquad$
236
$\qquad$
4,567
I,236 $\qquad$
54
589 $\qquad$
75
247 $\qquad$ 3,78। $\qquad$

Mental Math:

$$
\begin{array}{ll}
5+2-4+8= & 7 \times 7= \\
45 \div 9= & 4+6+5-5=
\end{array}
$$

Optional: Math Facts for Copywork or use flashcards to review facts as needed. Write which fact family you did for copywork:

Let's Practice and Review:
Fill in the blank.
5,280 feet $=\ldots$ mile
2,000 pounds =___ton
| year = ___months
| year = ___ days
| hour = __ minutes
| day = ___ hours
| yard = __ feet
| foot = __ inches

Write the value of the underlined number. The first one is done for you.
3,556 7,328
81,271
927,620
7,641,681 500

## Review

Color one third of each shape. Write the fraction at the end.


Mark under the money that is written correctly.
\$. 8
$\$ .80$
$\$ .05$
$\$ .5$
$\$ 1.7$
$\$ 3.07$

Write tally marks to show the number of lizards.


Practice writing these numbers on your Large Place Value workmat. Read the numbers to your teacher.

## 94,276 6,215 4,73I,84I 7,392,900 $421,504 \quad 5,652,661$

Add.

$$
\begin{array}{lll}
\text { Add. } & \text { Subtract. } & \text { Multiply. } \\
\text { I,000 } & 4,421 & 1,553,467 \\
+367 & -310 & x \\
\hline
\end{array}
$$

Divide.
$9 \longdiv { 8 1 }$
$\qquad$

Mental Math:
$3+2-4+8=$
$90 \div 9=$
$8 \times 7=$
$20+5-5=$

## Let's Practice and Review:

Fill in the blank.
| mile =__yards

$$
\text { I mile }=\ldots \text { feet }
$$

| ton =__ pounds

Write the problem and solve. The first one is done for you.
How many pounds in 2 tons? $2 \times 2,000=4,000$ How many ounces in 2 pounds?
How many feet in 6 yards?
How many months in 3 years?
How many inches in 2 feet?
How many minutes in 3 hours?
How many hours in 2 days?
How many days in 3 years?

Write the products.
$1 \times 5=$
$2 \times 5=$
$3 \times 5=$
$4 \times 5=$
$5 \times 5=$
$6 \times 5=$
$7 \times 5=$
$8 \times 5=$
$9 \times 5=\quad 10 \times 5=$

Write the answer.
403
$+275$
678
$3 \longdiv { 3 6 }$

The temperature at the children's home was 70 degrees. The temperature at the camp was 58 degrees. How many degrees cooler was the temperature at camp? $\qquad$
Draw thermometers showing the two temperatures.


Mental Math:
$4+2-3+5=$
$2 \times 7=$
$45 \div 9=$
$20+5-6=$

Multiply

| $x$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |

## Review:

Fill in the square by the correct answer for each.

| 1. | 8 |  | $=13$ |
| :---: | :---: | :---: | :---: |
|  |  | - | $\times$ |
| $\div$ | $\square$ | $\square$ | $\square$ |
| $\square$ | $\square$ |  |  |


| 2. | 50 |
| :--- | :--- |
|  | $\square 109$ |
| 32 | $\square 139$ |
| +47 | $\square 219$ |
|  | $\square$ Nothere |

Math Level 3 - Lesson 24
3. The smallest fraction.

| $\frac{1}{2}$ | $\frac{1}{5}$ | $\frac{1}{8}$ |
| :--- | :--- | :--- |
| $\square$ | $\square$ | $\square$ |

5. 


$7 . \quad$ ton
$\mathrm{l}, 000 \mathrm{lbs} .2,000 \mathrm{lbs}$. $\square$

4.
$\square 23$
$5 \times 3=\ldots \quad$ - 15
$\square 8$
6. Round
$\square 30$
45
40

- 50
$8 . \quad$ mile
5,280 feet 2,580 feet
$\square$

10. $\begin{array}{ccc}4 \times 4= & \\ 43 & 8 & 16 \\ \square & \square & \square\end{array}$
11. Mark under the third bird from the right.

$\square$

$\square$




## Review of All Roman Numerals and Shapes

Roman numerals are just another way of writing the same numbers you have already learned. They are often seen on clocks or used in books.


## Calculating the perimeter of a shape:

- Perimeter is the distance around a polygon. A polygon is just a shape made with straight sides.
"Poly" is a prefix which means "many"; thus, a polygon is a shape with many straight sides. To figure out the perimeter of a polygon, we just need to add up each side.

Example:
If the rectangle has 2 sides that are 6 inches and 2 sides that are 4 inches, you would use:

$$
6+6+4+4=20 \text { inches }
$$

## Calculating area of a square:

- How much room a square "takes up" is called the area.
- Area determined by multiplication: side x side $=$ square area

Example: a square is 5 inches on the sides.

$$
5 \times 5=25 \text { square inches }
$$

## For Copywork:

$I=$ one
$V=$ five
$X=\operatorname{ten}$
$L=$ fifty
$C=$ hundred
$D$ = five hundred
$M=$ thousand
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Roman Numerals

Fill in the clock with Roman numerals. Draw hands on the clock to show the time written below each one. Narrate to your teacher what you are doing.


12:15


2:25

Fill in the missing Roman numerals.
I, II, $\qquad$ . IV,

.VI, $\qquad$ _. IX, $\qquad$ , XI, XII,

$\qquad$ ,XVII, $\qquad$

## Practice.

Divide, then write the matching multiplication facts to the division problems above. The first one is done for you.
$9 \longdiv { 8 1 }$
$6 \longdiv { 3 6 }$
7) 42
$\underline{9} \times \underline{q}=\underline{81}$
${ }_{\sim}{ }^{X}=$
__
$\times$
$=$ $\qquad$
$8 \longdiv { 4 0 }$
$6 \longdiv { 5 4 }$
${ }_{\sim}{ }^{+}=$
${ }_{\sim} \times{ }_{\sim}=$

## Roman Numerals

Fill in the blank before and after.


Write the Roman numerals.
12 $\qquad$
20

13 $\qquad$
7 $\qquad$
$\qquad$
16 $\qquad$
15 $\qquad$
14 $\qquad$

Play "memory" by writing the Roman Numerals from I-XX, and the standard numbers $1-20$ on separate cards or pieces of paper. Find and flip over all matching sets.

## Practice

Draw lines, starting at the $\widehat{A}$.
$4 \frac{1}{2}$ inches
N

1 inch
\%

5 inches
A
$\qquad$

## Review Time!

Find the perimeter of the following shapes

$\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $=$ $\qquad$
$\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $=$ $\qquad$

5 feet


3 Miles

$\qquad$ $+$ $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $=$ $\qquad$

## Hands-on Project

| measure | write the measurements | find the perimeter |
| :---: | :---: | :---: |
| your desk or table |  |  |
| your classroom/family room |  |  |
| object or room of your choice |  |  |

## Name

Exercise

## Review Time!

Find the area of these squares. Write the equations next to or under each square.


## Hands-on Project

Find some rectangles, squares, and triangles around you. Use your ruler and measure the shapes. In the space below, write their perimeters. Make sure you write what kind of shape it was.

| what I measured | write the measurements | perimeter |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |

## Optional Review Activities

## Place Value

If your student struggles at all with place value, please use the Place Value Village to review and build their understanding. Here are complete instructions for using the Place Value Village.
Follow these steps:

1. When your student is counting $0-9$, simply place single beans into the ONE'S house, and have your student write on their Place Value Village Mat, the numbers 0-9.
2. As we all know, only 9 ones can live in the ONE'S house, so all 9 beans jump out of their house and join up with their new friend, Mr. Tenth bean! They all then jump into a snack size baggie (usable over and over) and go next door, to live in the TEN'S house.
3. Repeat this process, until you have ten baggies of beans trying to live in the TEN'S house. Of course, only nine can live there, so all the baggies of ten jump into a bigger bag and make the move to their new house, the HUNDRED'S house. You can also use buttons, paper clips, or basically any small item. They don't even have to be all the same kind of item.
4. Once you have a firm understanding of place value concepts up through 999, it's time introduce the thousand's place. This is made much easier by using the 100's counters (included in the manipulative section). See Angela O'Dell's Place Value instructional video: www.youtube.com/watch?v=fuZ7Y3fDe7c

## Multiplication and Division

Please make sure that you practice these concepts using manipulatives.
Practice showing the different facts and how they go together.
Practice skip counting. Skip counting helps cement the facts.
Making sure that you help your student master the concept and facts will ensure that they will be more successful in higher math.

## Telling Time and Reading Thermometers

It is an excellent idea to practice telling time and temperature in real life! Make sure you give your student real life experience with both of these concepts.

## Flashcards and Copywork

These are so important! If your student is having ANY difficulty with recall, make a flashcard and have them do copywork of what you want them to learn. When you make flashcards, make sure they show the entire fact or concept. You do not want the student's mind taking a picture of the missing answer!

## Picarones (Pumpkin Fritters)

1 package dry yeast
$\frac{1}{4}$ cup lukewarm water
2 Tablespoons sugar
1 egg, lightly beaten
1 can (16-ounce) pumpkin
$\frac{1}{2}$ teaspoon salt
4 cups flour
Oil, for frying
Maple syrup


1. In a large bowl, sprinkle the yeast over the lukewarm water and stir to dissolve.
2. Add the sugar, egg, pumpkin, and salt; combine thoroughly.
3. Add the flour, $\frac{1}{2}$ cup at a time, until the dough becomes too stiff to beat with a wooden spoon.
4. Turn the dough out onto a lightly floured board and knead in enough of the remaining flour to prevent the dough from sticking to your fingers.
5. Continue kneading until the dough is smooth and elastic (about 8 minutes).
6. Shape it into a ball and place in a greased bowl. Cover and let rise in a warm place for 1 hour, or until doubled in size.
7. Punch down the dough and tear off pieces, shaping into doughnut-like rings, about 3 inches in diameter.
8. Heat about 1 -inch of oil in a deep skillet and fry the fritters for about 5 minutes, turning them once, until crisp and golden brown.
9. Drain on paper towels and serve immediately with warm maple syrup.

Makes 12 servings.

## Play Store

I hesitate to make this an optional activity; it is that important! Set aside time every week to practice counting money and making change. SO IMPORTANT!
Use the space below to record other review activities that you did this year.

