

## Curriculum Guide for Second Grade Arithmetic

### Arithmetic – Unit 1 Pond

6 weeks

A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A2.7, A2.8, A2.9

#### **Biblical Worldview Essential Questions**

**Do you think numbers are important to God?  
Arithmetic is orderly. Is orderliness important to God?  
What does the Bible say about money?**

Objectives	Methods	Resources	Assessment
<p>The student will</p> <ul style="list-style-type: none"> <li>• count to 200 forward and backward by ones, twos, fives, and tens</li> <li>• count on a number line</li> <li>• identify ordinal numbers</li> <li>• recall that God’s creation is orderly</li> <li>• count by even and odd numbers</li> <li>• understand ones, tens, and hundreds place value</li> <li>• illustrate place value with counters</li> <li>• order three numbers from least to greatest</li> <li>• understand the concepts of addition and subtraction</li> <li>• add zero, one, and two</li> <li>• subtract zero, one, two, all of a number, and half of a number</li> <li>• add doubles and doubles plus one</li> <li>• memorize fact families 1-8</li> <li>• learn terminology- <i>addend, sum, subtrahend, minuend, difference</i></li> <li>• find missing terms</li> <li>• write number sentences</li> <li>• solve word problems</li> <li>• add two digits without carrying</li> <li>• solve addition and subtraction word problems and explain why they are solved</li> </ul>	<ul style="list-style-type: none"> <li>• oral drill</li> <li>• speed drill</li> <li>• board work</li> <li>• scrap paper practice</li> <li>• small group work</li> <li>• individual practice</li> <li>• demonstration</li> <li>• hands-on activities</li> <li>• class games –Pond Game, I Am Thinking of a Number, What Hour Comes Next?, Fast Fact Finder, Name That Number</li> <li>• flannel graph</li> <li>• recitation of facts</li> </ul>	<ul style="list-style-type: none"> <li>• A Beka Second Grade Curriculum</li> <li>• student text Arithmetic 2 (A Beka arithmetic)</li> <li>• teacher text Arithmetic 2 (A Beka arithmetic)</li> <li>• Holy Bible</li> <li>• Place Value Concept Cards (A Beka)</li> <li>• clear, plastic shoe bag for illustrating place value</li> <li>• clock</li> <li>• 1-100 counting chart</li> <li>• yardstick</li> <li>• Teach-a-Coin Set (A Beka)</li> <li>• play money bills</li> <li>• flannel board</li> <li>• felt animals, numerals, symbols (+, -, &lt;, &gt;, =)</li> <li>• Down By the Pond Game (A Beka)</li> <li>• Left Frog, Right Frog poem (A Beka)</li> <li>• animal counters</li> <li>• addition flashcards</li> <li>• subtraction flashcards</li> <li>• Drill Set A Flashcards (A Beka)</li> <li>• Combination Dot Cards (A Beka)</li> <li>• calendar</li> <li>• chalkboard</li> <li>• chalk</li> <li>• Birthday Graph (A Beka)</li> <li>• 101-200 Counting Chart (A Beka)</li> <li>• straws</li> <li>• rubber bands</li> <li>• large containers</li> </ul>	<ul style="list-style-type: none"> <li>• individual assignments</li> <li>• speed drills</li> <li>• oral responses</li> <li>• quizzes</li> <li>• tests</li> </ul>

<p>as they are</p> <ul style="list-style-type: none"> <li>• illustrate story problems</li> <li>• sort shapes</li> <li>• recognize and draw plane geometric shapes</li> <li>• recognize solid shapes</li> <li>• understand vertex and identify the number of vertices a plane or solid shape has</li> <li>• continue patterns</li> <li>• solve story problems and give the combinations</li> <li>• count pennies, dimes, nickels, half dollars, one-dollar, ten-dollar, and five-dollar bills</li> <li>• order bills and coins from greatest to least</li> <li>• combine coins</li> <li>• read horizontal, vertical bar graphs</li> <li>• complete a bar graph</li> <li>• read a map</li> <li>• read a pictograph</li> <li>• read a calendar</li> <li>• put dates on a calendar</li> <li>• memorize the days of the week and the months of the year</li> <li>• understand that God's laws are unchanging</li> <li>• tell time to the hour and the half hour</li> <li>• understand A.M. and P.M.</li> <li>• learn the number of seconds in a minute, minutes in an hour, and hours in a day</li> <li>• determine lapse of time</li> <li>• distinguish between analog and digital clocks</li> <li>• read and set a thermometer to the nearest two degrees</li> <li>• learn the freezing point of water on the Fahrenheit scale</li> <li>• recognize the Celsius scale</li> <li>• identify the proper clothing for a temperature</li> </ul>		<ul style="list-style-type: none"> <li>• Classroom Thermometer (A Beka)</li> <li>• sandwich cookies</li> <li>• sticky notes</li> <li>• ABC block</li> <li>• rectangular box</li> <li>• cola can</li> <li>• picture of Egyptian pyramid</li> <li>• apple</li> <li>• knife</li> <li>• square shaped piece of paper</li> <li>• small container</li> <li>• cubes</li> <li>• picture of pizza cut in half</li> <li>• yarn</li> <li>• Mercury Mouse Thermometer (A Beka)</li> <li>• red construction paper</li> <li>• Days of the Month Bar Graph (A Beka)</li> <li>• ball/sphere</li> <li>• Fifty Nifty States Poster (A Beka)</li> <li>• candy bars</li> <li>• items for classroom "store"</li> </ul>	
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<ul style="list-style-type: none"><li>• decide if a temperature is above or below zero</li><li>• find one half of an object, group, or number</li><li>• understand one-half hour and one-half dollar</li></ul>			
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## Arithmetic – Unit 2-Transportation

4 weeks

A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A2.7, A2.8, A2.9

### Biblical Worldview Essential Questions

**Is God restricted by time or space?**

Objectives	Methods	Resources	Assessment
<p>The student will</p> <ul style="list-style-type: none"> <li>• count to 1,000</li> <li>• count by threes and twenty-fives</li> <li>• count ordinal numbers to fiftieth</li> <li>• understand thousands</li> <li>• understand position with ordinal numbers</li> <li>• memorize addition families 1-11</li> <li>• memorize subtraction families 1-10</li> <li>• add three digits with carrying</li> <li>• subtract two digits without borrowing</li> <li>• use four-step method to solve word problems</li> <li>• solve word problems requiring carrying</li> <li>• realize the Bible has the “method” to meet man’s greatest need</li> <li>• measure and draw lines</li> <li>• use critical thinking skills to answer questions and draw conclusions</li> <li>• count quarters and combine with other coins</li> <li>• combine bills and coins</li> <li>• understand that the decimal point separates the dollars from the cents</li> <li>• tell time to the quarter hours</li> <li>• understand time zones</li> <li>• realize that God is infinite and not restricted to time or space</li> <li>• read and set a thermometer to the</li> </ul>	<ul style="list-style-type: none"> <li>• oral drill</li> <li>• speed drill</li> <li>• small group work</li> <li>• scrap paper practice</li> <li>• individual practice</li> <li>• demonstration</li> <li>• hands-on activities</li> <li>• class games – Transportation Town, Winner’s Circle, Around the World, Christmas Vacation</li> <li>• flannel board</li> <li>• recitation of facts</li> </ul>	<ul style="list-style-type: none"> <li>• A Beka Second Grade Curriculum</li> <li>• student text Arithmetic 2 (A Beka arithmetic)</li> <li>• teacher text Arithmetic 2 (A Beka arithmetic)</li> <li>• Holy Bible</li> <li>• chalkboard</li> <li>• chalk</li> <li>• 1-100 Counting Chart (A Beka)</li> <li>• 101-200 Counting Chart (A Beka)</li> <li>• Teach-a-Coin Set (A Beka)</li> <li>• play money bills</li> <li>• Place Value Concept Cards (A Beka)</li> <li>• clear, plastic shoe bag</li> <li>• addition flashcards</li> <li>• subtraction flashcards</li> <li>• clock</li> <li>• thermometer</li> <li>• counters</li> <li>• Combination Dot Cards (A Beka)</li> <li>• calendar</li> <li>• egg carton</li> <li>• ruler</li> <li>• construction paper</li> <li>• Big Rolling Ruler Chart (A Beka)</li> <li>• candy bars</li> <li>• lollipop</li> <li>• Mercury Mouse Thermometer (A Beka)</li> <li>• Transportation Town Game (A Beka)</li> <li>• Drill Set A Flashcards (A Beka)</li> <li>• Straws</li> <li>• Rubber bands</li> <li>• Big Rolling Ruler Chart (A Beka)</li> <li>• yardstick</li> </ul>	<ul style="list-style-type: none"> <li>• individual assignments</li> <li>• oral responses</li> <li>• speed drills</li> <li>• quizzes</li> <li style="padding-left: 20px;">• tests</li> </ul>

<p>nearest one degree</p> <ul style="list-style-type: none"><li>• find one-half dollar</li><li>• find one fourth of an object, group, or number</li><li>• compare on half and one fourth</li><li>• learn dozen and half-dozen</li><li>• measure and draw lines to the inch and the half inch</li><li>• learn the number of inches and feet in a yard and inches in a foot</li></ul>		<ul style="list-style-type: none"><li>• ball</li><li>• yarn</li><li>• Fifty Nifty States (A Beka chart)</li><li>• knife</li><li>• toy cars</li><li>• Going and Growing Gauge (A Beka)</li></ul>	
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## Arithmetic – Unit 3-Children Around the World

5 weeks

A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A2.7, A2.8, A2.9

### Biblical Worldview Essential Questions

**What does the Bible say about money?**

**Why is it important for people to understand how to properly use money?**

Objectives	Methods	Resources	Assessment
<p>The student will</p> <ul style="list-style-type: none"> <li>• count by fours</li> <li>• understand ten thousand</li> <li>• write cents as cents or dollars</li> <li>• memorize addition families 1-13</li> <li>• memorize subtraction families 1-13</li> <li>• solve multiple combinations</li> <li>• add four digits with carrying</li> <li>• subtract three digits with borrowing</li> <li>• learn interesting facts about places and people while solving word problems</li> <li>• read a recipe</li> <li>• read scale drawings</li> <li>• recognize symmetry</li> <li>• solve oral logic questions</li> <li>• memorize the days in a year and weeks in a year</li> <li>• tell time to five minutes</li> <li>• learn the boiling point of water and body temperature on the Fahrenheit scale</li> <li>• find temperatures that have risen or dropped</li> <li>• identify mixed numbers</li> <li>• measure to the fourth-inch</li> <li>• draw lines to the fourth-inch</li> <li>• realize that God “measures”</li> <li>• learn liquid measures</li> </ul>	<ul style="list-style-type: none"> <li>• oral drill</li> <li>• speed drill</li> <li>• small group work</li> <li>• board work</li> <li>• scrap paper practice</li> <li>• individual practice</li> <li>• demonstration</li> <li>• hands-on activities</li> <li>• class games – Around the World, Beat the Clock, Three in a Row, Row Relay, King vs. Queen, Navigator</li> <li>• flannel board</li> <li>• recitation of facts</li> </ul>	<ul style="list-style-type: none"> <li>• A Beka Second Grade Curriculum</li> <li>• student text Arithmetic 2 (A Beka arithmetic)</li> <li>• teacher text Arithmetic 2 (A Beka arithmetic)</li> <li>• Holy Bible</li> <li>• chalk board</li> <li>• chalk</li> <li>• Children Around the World Poster (A Beka)</li> <li>• flannel board</li> <li>• felt fractional circles</li> <li>• felt numerals</li> <li>• felt arithmetic symbols</li> <li>• cup, pint, quart, and gallon containers</li> <li>• large bucket</li> <li>• water</li> <li>• food coloring</li> <li>• globe</li> <li>• flashlight</li> <li>• measuring spoons</li> <li>• sticky notes</li> </ul>	<ul style="list-style-type: none"> <li>• individual assignments</li> <li>• oral responses</li> <li>• speed drills</li> <li>• quizzes</li> <li>• tests</li> </ul>

## Arithmetic-Unit 4-Jungle

7 weeks

A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A2.7, A2.8, A2.9

### Biblical Worldview Essential Questions

**Why did God create different climates in the world?**

**How is symmetry shown in creation?**

Objectives	Methods	Resources	Assessment
<p>The student will</p> <ul style="list-style-type: none"> <li>• count to 2,000</li> <li>• continue counting pattern</li> <li>• use pictures to illustrate place value</li> <li>• memorize addition families 1-15</li> <li>• solve multiple combinations</li> <li>• add three three-digit numbers with carrying</li> <li>• subtract four-digit numbers with borrowing</li> <li>• borrow with zeros in the minuend</li> <li>• solve word problems requiring borrowing</li> <li>• solve multiplication word problems</li> <li>• find locations on a coordinate plane</li> <li>• find the half that is symmetrical to a given half</li> <li>• learn the Roman numeral symbols</li> <li>• use rules to write Roman numerals</li> <li>• read a clock with Roman numerals</li> <li>• use graph to help with multiplication</li> <li>• read a grid</li> <li>• write dates as digits</li> <li>• learn days in the month</li> <li>• find one half of even numbers</li> <li>• measure to the nearest centimeter</li> <li>• learn some metric units of length</li> <li>• compare the meter and the yard; the</li> </ul>	<ul style="list-style-type: none"> <li>• oral drill</li> <li>• speed drill</li> <li>• small group work</li> <li>• board work</li> <li>• scrap paper practice</li> <li>• individual practice</li> <li>• demonstration</li> <li>• hands-on activities</li> <li>• class games – Around the Jungle, Beat the Clock, Row Relay, Through the Jungle, Circles in a Square, Jungle Safari, Giant Step</li> <li>• flannel board</li> <li>• recitation of facts</li> </ul>	<ul style="list-style-type: none"> <li>• A Beka Second Grade Curriculum</li> <li>• student text Arithmetic 2 (A Beka arithmetic)</li> <li>• teacher text Arithmetic 2 (A Beka arithmetic)</li> <li>• Holy Bible</li> <li>• chalkboard</li> <li>• chalk</li> <li>• Children Around the World Poster (A Beka)</li> <li>• book about jungle</li> <li>• addition and subtraction flashcards</li> <li>• Drill Set A Flashcards (A Beka)</li> <li>• Mercury Mouse Thermometer (A Beka)</li> <li>• clock</li> <li>• ruler with in. and cm.</li> <li>• Teach-a-Coin Set (A Beka)</li> <li>• egg carton</li> <li>• plastic eggs</li> <li>• can</li> <li>• cubes</li> <li>• Days of the Month Bar Graph (A Beka)</li> <li>• Combination Dot Cards (A Beka)</li> <li>• Place Value Concept Cards (A Beka)</li> <li>• clear, plastic shoe bag</li> <li>• meter stick</li> <li>• yard stick</li> <li>• yarn</li> <li>• baggies</li> <li>• multiplication flashcards</li> <li>• bean bag</li> <li>• bathroom scale</li> <li>• item weighing 1 lb.</li> </ul>	<ul style="list-style-type: none"> <li>• individual assignments</li> <li>• oral responses</li> <li>• speed drills</li> <li>• quizzes</li> <li>• tests</li> </ul>

<p>centimeter and the inch</p> <ul style="list-style-type: none"><li>• learn some English and metric units of weight</li><li>• compare the pound and the kilogram</li><li>• understand the concept of multiplication</li><li>• learn the terms <i>factor</i> and <i>product</i></li><li>• understand that any number times zero is zero and any number times one is that number</li><li>• memorize multiplication table two</li><li>• understand the concept of division</li><li>• understand that division is the opposite of multiplication</li><li>• learn the term <i>quotient</i></li><li>• understand that any number divided by one is that number</li><li>• understand that dividing by two is the same as finding one half of a number</li></ul>		<ul style="list-style-type: none"><li>• 2 lb. of fruit separated into 2 groups of 1 lb. Each</li><li>• gram of candy</li><li>• ounce of candy</li><li>• Classroom Calculator poster (A Beka)</li><li>• division flashcards</li></ul>	
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## Arithmetic – Unit 5-Workers and Helpers

5 weeks

A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A2.7, A2.8, A2.9

### Biblical Worldview Essential Questions

Does the Bible say anything about multiplication or division?

Objectives	Methods	Resources	Assessment
<p>The student will</p> <ul style="list-style-type: none"> <li>• count beyond 10,000</li> <li>• round to the nearest ten</li> <li>• memorize families 1-17</li> <li>• estimate sums</li> <li>• add with carrying to ten thousands</li> <li>• borrow with zeros in the minuend</li> <li>• solve with missing facts</li> <li>• solve with extra facts</li> <li>• find perimeter</li> <li>• find how many coins and bills in a given amount</li> <li>• make change</li> <li>• find one third of a group and number</li> <li>• compare on half, one third, and one fourth</li> <li>• find one fourth of a number</li> <li>• measure a square or rectangle to find the perimeter</li> <li>• memorize multiplication tables 2-5</li> <li>• find the missing factor</li> <li>• solve multiple combinations with multiplication</li> <li>• learn division tables 2-4</li> <li>• solve multiple combinations with division</li> </ul>	<ul style="list-style-type: none"> <li>• oral drill</li> <li>• speed drill</li> <li>• small group work</li> <li>• board work</li> <li>• scrap paper practice</li> <li>• individual practice</li> <li>• demonstration</li> <li>• hands-on activities</li> <li>• class games – Name Ten, Three in a Row, Name that Number, Row Relay, Giant Step, Four Corners, Frog Jumping Contest, Guess My Age,</li> <li>• flannel board</li> <li>• recitation of facts</li> </ul>	<ul style="list-style-type: none"> <li>• student text Arithmetic 2 (A Beka arithmetic)</li> <li>• teacher text Arithmetic 2 (A Beka arithmetic)</li> <li>• Holy Bible</li> <li>• chalkboard</li> <li>• chalk</li> <li>• flannel board</li> <li>• Name Ten Game (A Beka)</li> <li>• Sticky notes</li> <li>• Big Rolling Ruler (A Beka)</li> <li>• Process Flashcards (A Beka)</li> <li>• Place Value Concept Cards (A Beka)</li> <li>• clear, plastic shoe bag</li> <li>• Fifty Nifty States Chart (A Beka)</li> <li>• Baggies</li> <li>• 101-200 Counting Chart (A Beka)</li> <li>• felt fractional circles</li> <li>• yardstick</li> <li>• ruler knife</li> <li>• candy bar</li> <li>• Mercury Mouse Thermometer (A Beka)</li> <li>• Teach-a-Coin Set (A Beka)</li> <li>• play money bills</li> <li>• Combination Dot Cards (A Beka)</li> <li>• Classroom Calculator Chart (A Beka)</li> <li>• Drill Set A Flashcards (A Beka)</li> <li>• stuffed animals</li> <li>• 1-100 Counting Chart (A Beka)</li> <li>• clock</li> </ul>	<ul style="list-style-type: none"> <li>• individual assignments</li> <li>• oral responses</li> <li>• speed drills</li> <li>• quizzes</li> <li>• tests</li> </ul>

# Arithmetic – Unit 6-Camping

5 weeks

A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A2.7, A2.8, A2.9

## Biblical Worldview Essential Questions

**Why is it important for people to be able to logically solve problems?**

Objectives	Methods	Resources	Assessment
<p>The student will</p> <ul style="list-style-type: none"> <li>• round to the nearest dollar</li> <li>• find the dimes’ and pennies’ place value</li> <li>• understand hundred thousands</li> <li>• memorize addition and subtraction families 1-18</li> <li>• add and subtract dollars and cents</li> <li>• solve division word problems</li> <li>• align decimal points when adding and subtracting dollars and cents</li> <li>• read line graphs</li> <li>• plot points on a line graph</li> <li>• tell time to the minute</li> <li>• read temperatures that are below zero</li> <li>• memorize multiplication tables 2-5</li> <li>• learn division tables 2-5</li> </ul>	<ul style="list-style-type: none"> <li>• oral drill</li> <li>• speed drill</li> <li>• small group work</li> <li>• board work</li> <li>• scrap paper practice</li> <li>• individual practice</li> <li>• demonstration</li> <li>• hands-on activities</li> <li>• class games – Math Mountain, Row Relay, Beat the Clock, Capture the Card, Four Corners,</li> <li>• flannel board</li> <li>• recitation of facts</li> </ul>	<ul style="list-style-type: none"> <li>• student text Arithmetic 2 (A Beka)</li> <li>• teacher text Arithmetic 2 (A Beka)</li> <li>• Holy Bible</li> <li>• chalkboard</li> <li>• chalk</li> <li>• Math Mountain Game (A Beka)</li> <li>• ball</li> <li>• can</li> <li>• block</li> <li>• rectangular box</li> <li>• Drill Set A Flashcards (A Beka)</li> <li>• Teach-a-Coin Set (A Beka)</li> <li>• play money bills</li> <li>• Process Flashcards (A Beka)</li> <li>• clock</li> <li>• Classroom Thermometer (A Beka)</li> <li>• Place Value Concept Cards (A Beka)</li> <li>• clear, plastic shoe bag</li> <li>• Felt Fractional Circles (A Beka)</li> <li>• ruler</li> <li>• Going and Growing Gauge (A Beka)</li> <li>• 1-100 Counting Chart (A Beka)</li> <li>• calendar</li> <li>• Mercury Mouse Thermometer (A Beka)</li> <li>• Classroom Calculator Chart (A Beka)</li> <li>• Big Rolling Ruler (A Beka)</li> <li>• Fifty Nifty States Chart (A Beka)</li> </ul>	<ul style="list-style-type: none"> <li>• individual assignments</li> <li>• oral responses</li> <li>• speed drills</li> <li>• quizzes</li> <li>• tests</li> </ul>