### 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
The student will	oral drill	A Beka Second Grade	individual
<ul> <li>count to 200 forward</li> </ul>	<ul> <li>speed drill</li> </ul>	Curriculum	assignments
and backward by	<ul> <li>board work</li> </ul>	<ul> <li>student text</li> </ul>	<ul> <li>speed drills</li> </ul>
ones, twos, fives, and	<ul> <li>scrap paper practice</li> </ul>	Arithmetic 2 (A Beka	<ul> <li>oral responses</li> </ul>
tens	<ul> <li>small group work</li> </ul>	arithmetic)	<ul><li>quizzes</li></ul>
• count on a number	<ul> <li>individual practice</li> </ul>	<ul><li>teacher text</li></ul>	<ul><li>tests</li></ul>
line	<ul> <li>demonstration</li> </ul>	Arithmetic 2 (A Beka	
identify ordinal	<ul> <li>hands-on activities</li> </ul>	arithmetic)	
numbers	<ul> <li>class games –Pond</li> </ul>	Holy Bible	
• recall that God's	Game, I Am Thinking	Place Value Concept	
<ul><li>creation is orderly</li><li>count by even and odd</li></ul>	of a Number, What	Cards (A Beka)	
• count by even and odd numbers	Hour Comes Next?,	clear, plastic shoe bag  for illustrating place.	
<ul> <li>understand ones, tens,</li> </ul>	Fast Fact Finder,	for illustrating place value	
and hundreds place	Name That Number	• clock	
value	<ul><li>flannel graph</li><li>recitation of facts</li></ul>	• 1-100 counting chart	
• illustrate place value	• recitation of facts	• yardstick	
with counters		• Teach-a-Coin Set (A	
<ul> <li>order three numbers</li> </ul>		Beka)	
from least to greatest		<ul> <li>play money bills</li> </ul>	
<ul> <li>understand the</li> </ul>		• flannel board	
concepts of addition		<ul> <li>felt animals,</li> </ul>	
and subtraction		numerals, symbols (+,	
add zero, one, and two		-, <, >, =)	
• subtract zero, one,		<ul> <li>Down By the Pond</li> </ul>	
two, all of a number,		Game (A Beka)	
and half of a number		<ul> <li>Left Frog, Right Frog</li> </ul>	
<ul> <li>add doubles and doubles plus one</li> </ul>		poem (A Beka)	
memorize fact		animal counters	
families 1-8		addition flashcards	
learn terminology-		subtraction flashcards	
addend, sum,		Drill Set A Flashcards     (A Dalas)	
subtrahend, minuend,		(A Beka)	
difference		<ul> <li>Combination Dot Cards (A Beka)</li> </ul>	
<ul> <li>find missing terms</li> </ul>		• calendar	
write number		<ul><li>calendar</li><li>chalkboard</li></ul>	
sentences		• chalk	
<ul> <li>solve word problems</li> </ul>		Birthday Graph (A	
<ul> <li>add two digits without</li> </ul>		Beka)	
carrying		• 101-200 Counting	
solve addition and		Chart (A Beka)	
subtraction word		• straws	
problems and explain		<ul> <li>rubber bands</li> </ul>	
why they are solved		<ul> <li>large containers</li> </ul>	

- as they are
- illustrate story problems
- sort shapes
- recognize and draw plane geometric shapes
- recognize solid shapes
- understand vertex and identify the number of vertexes a plane or solid shape has
- continue patterns
- solve story problems and give the combinations
- count pennies, dimes, nickels, half dollars, one-dollar, ten-dollar, and five-dollar bills
- order bills and coins from greatest to least
- combine coins
- read horizontal, vertical bar graphs
- complete a bar graph
- read a map
- read a pictograph
- read a calendar
- put dates on a calendar
- memorize the days of the week and the months of the year
- understand that God's laws are unchanging
- tell time to the hour and the half hour
- understand A.M. and P.M.
- learn the number of seconds in a minute, minutes in an hour, and hours in a day
- determine lapse of time
- distinguish between analog and digital clocks
- read and set a thermometer to the nearest two degrees
- learn the freezing point of water on the Fahrenheit scale
- recognize the Celsius scale
- identify the proper clothing for a temperature

- Classroom
   Thermometer (A Beka)
- sandwich cookies
- sticky notes
- ABC block
- rectangular box
- cola can
- picture of Egyptian pyramid
- apple
- knife
- square shaped piece of paper
- small container
- cubes
- picture of pizza cut in half
- yarn
- Mercury Mouse Thermometer (A Beka)
- red construction paper
- Days of the Month Bar Graph (A Beka)
- ball/sphere
- Fifty Nifty States Poster (A Beka)
- candy bars
- items for classroom "store"

1 11 10			
<ul> <li>decide if a</li> </ul>			
temperature i	s above		
or below zero			
<ul> <li>find one half</li> </ul>	of an		
object, group	, or		
number			
<ul> <li>understand or</li> </ul>	ne-half		
hour and one	-half		
dollar			

### <u>Arithmetic – Unit 2-Transportation</u> 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
The stud		oral drill	A Beka Second Grade	<ul> <li>individual</li> </ul>
•	count to 1,000	speed drill	Curriculum	assignments
•	count by threes and	small group work	<ul> <li>student text</li> </ul>	<ul> <li>oral responses</li> </ul>
	twenty-fives	scrap paper practice	Arithmetic 2 (A Beka	• speed drills
	count ordinal numbers	<ul><li>individual practice</li></ul>	arithmetic)	• quizzes
	to fiftieth	demonstration	teacher text	tests
	understand thousands	<ul> <li>hands-on activities</li> </ul>	Arithmetic 2 (A Beka	10313
	understand position		arithmetic)	
	with ordinal numbers	• class games –	Holy Bible	
	memorize addition	Transportation Town, Winner's Circle,	• chalkboard	
	families 1-11	Around the World,	• chalk	
	memorize subtraction	Christmas Vacation	• 1-100 Counting Chart	
	families 1-10	• flannel board	(A Beka)	
	add three digits with		• 101-200 Counting	
	carrying	• recitation of facts	Chart (A Beka)	
	subtract two digits		• Teach-a-Coin Set (A	
	without borrowing		Beka)	
	use four-step method		<ul><li>play money bills</li></ul>	
	to solve word		<ul> <li>Place Value Concept</li> </ul>	
	problems		Cards (A Beka)	
	solve word problems		1 1 1 1	
	requiring carrying		<ul><li>clear, plastic shoe bag</li><li>addition flashcards</li></ul>	
	realize the Bible has		1	
	the "method" to meet			
	man's greatest need		• clock	
	measure and draw		• thermometer	
	lines		• counters	
	use critical thinking		Combination Dot	
	skills to answer		Cards (A Beka)	
	questions and draw		<ul> <li>calendar</li> </ul>	
	conclusions		• egg carton	
	count quarters and		• ruler	
	combine with other		<ul> <li>construction paper</li> </ul>	
	coins		Big Rolling Ruler	
	combine bills and		Chart (A Beka)	
	coins		• candy bars	
	understand that the		<ul> <li>lollipop</li> </ul>	
	decimal point		Mercury Mouse	
	separates the dollars		Thermometer (A	
	from the cents		Beka)	
	tell time to the quarter		Transportation Town	
	hours		Game (A Beka)	
	understand time zones		Drill Set A Flashcards	
	realize that God is		(A Beka)	
	infinite and not		• Straws	
	restricted to time or		<ul> <li>Rubber bands</li> </ul>	
	space		<ul> <li>Big Rolling Ruler</li> </ul>	
	read and set a		Chart (A Beka)	
	thermometer to the		<ul><li>yardstick</li></ul>	

nearest one degree	• ball
find one-half dollar	• yarn
<ul> <li>find one fourth of an</li> </ul>	Fifty Nifty States (A
object, group, or	Beka chart)
number	• knife
compare on half and	• toy cars
one fourth	Going and Growing
learn dozen and half-	Gauge (A Beka)
dozen	
measure and draw	
lines to the inch and	
the half inch	
learn the number of	
inches and feet in a	
yard and inches in a	
foot	

# 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
The student will	oral drill	A Beka Second Grade	<ul> <li>individual</li> </ul>
<ul> <li>count by fours</li> </ul>	<ul> <li>speed drill</li> </ul>	Curriculum	assignments
<ul> <li>understand ten</li> </ul>	small group work	<ul> <li>student text</li> </ul>	<ul> <li>oral responses</li> </ul>
thousand	board work	Arithmetic 2 (A Beka	<ul> <li>speed drills</li> </ul>
<ul> <li>write cents as cents or</li> </ul>	<ul> <li>scrap paper practice</li> </ul>	arithmetic)	• quizzes
dollars	• individual practice	<ul> <li>teacher text</li> </ul>	• tests
<ul> <li>memorize addition</li> </ul>	• demonstration	Arithmetic 2 (A Beka	
families 1-13	hands-on activities	arithmetic)	
<ul> <li>memorize subtraction</li> </ul>	• class games – Around	<ul> <li>Holy Bible</li> </ul>	
families 1-13	the World, Beat the	<ul> <li>chalk board</li> </ul>	
<ul> <li>solve multiple</li> </ul>	Clock, Three in a	<ul><li>chalk</li></ul>	
combinations	Row, Row Relay,	<ul> <li>Children Around the</li> </ul>	
<ul> <li>add four digits with</li> </ul>	King vs. Queen,	World Poster (A	
carrying	Navigator	Beka)	
<ul> <li>subtract three digits</li> </ul>	<ul> <li>flannel board</li> </ul>	<ul> <li>flannel board</li> </ul>	
with borrowing	<ul> <li>recitation of facts</li> </ul>	<ul> <li>felt fractional circles</li> </ul>	
<ul> <li>learn interesting facts</li> </ul>		<ul> <li>felt numerals</li> </ul>	
about places and		felt arithmetic	
people while solving		symbols	
word problems		• cup, pint, quart, and	
• read a recipe		gallon containers	
read scale drawings		<ul> <li>large bucket</li> </ul>	
recognize symmetry		• water	
solve oral logic		food coloring	
questions		• globe	
<ul> <li>memorize the days in a year and weeks in a</li> </ul>		• flashlight	
year		measuring spoons	
• tell time to five		sticky notes	
minutes			
<ul><li>learn the boiling point</li></ul>			
of water and body			
temperature on the			
Fahrenheit scale			
<ul> <li>find temperatures that</li> </ul>			
have risen or dropped			
<ul> <li>identify mixed</li> </ul>			
numbers			
<ul> <li>measure to the fourth-</li> </ul>			
inch			
• draw lines to the			
fourth-inch			
<ul> <li>realize that God</li> </ul>			
"measures"			
<ul> <li>learn liquid measures</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
The student will	oral drill	A Beka Second Grade	<ul> <li>individual</li> </ul>
• count to 2,000	speed drill	Curriculum	assignments
<ul> <li>continue counting</li> </ul>	small group work	<ul> <li>student text</li> </ul>	<ul> <li>oral responses</li> </ul>
pattern	board work	Arithmetic 2 (A Beka	<ul> <li>speed drills</li> </ul>
• use pictures to	<ul> <li>scrap paper practice</li> </ul>	arithmetic)	<ul><li>quizzes</li></ul>
illustrate place value	<ul><li>individual practice</li></ul>	• teacher text	• tests
memorize addition		Arithmetic 2 (A Beka	tests
families 1-15		arithmetic)	
<ul><li>solve multiple</li></ul>	hands-on activities	Holy Bible	
combinations	• class games – Around	• chalkboard	
add three three-digit	the Jungle, Beat the	• chalk	
numbers with carrying	Clock, Row Relay,	Children Around the	
<ul> <li>subtract four-digit</li> </ul>	Through the Jungle,	World Poster (A	
numbers with	Circles in a Square, Jungle Safari, Giant	Beka)	
borrowing		book about jungle	
borrow with zeros in	Step  • flannel board	addition and	
the minuend		subtraction flashcards	
<ul> <li>solve word problems</li> </ul>	<ul> <li>recitation of facts</li> </ul>	D 711 G + A T71 - 1	
requiring borrowing		Drill Set A Flashcards     (A Beka)	
solve multiplication		Mercury Mouse	
word problems		Thermometer (A	
<ul> <li>find locations on a</li> </ul>		Beka)	
coordinate plane		• clock	
• find the half that is		<ul><li>ruler with in. and cm.</li></ul>	
symmetrical to a		Teach-a-Coin Set (A	
given half		Beka)	
• learn the Roman		• egg carton	
numeral symbols		<ul><li>egg carton</li><li>plastic eggs</li></ul>	
• use rules to write		• can	
Roman numerals		• cubes	
read a clock with			
Roman numerals		<ul> <li>Days of the Month</li> <li>Bar Graph (A Beka)</li> </ul>	
use graph to help with		Combination Dot	
multiplication		Cards (A Beka)	
• read a grid		<ul> <li>Place Value Concept</li> </ul>	
write dates as digits		Cards (A Beka)	
• learn days in the		• clear, plastic shoe bag	
month		meter stick	
<ul> <li>find one half of even</li> </ul>		<ul><li>meter stick</li><li>yard stick</li></ul>	
numbers		•	
measure to the nearest		• yarn	
centimeter		baggies     multiplication	
learn some metric		<ul> <li>multiplication flashcards</li> </ul>	
units of length			
<ul> <li>compare the meter</li> </ul>		bean bag     bathraam saala	
and the yard; the		bathroom scale     its an area in him at the	
. <b>.</b>		• item weighing 1 lb.	

centimeter and the	• 2 lb. of fruit separated	
inch	into 2 groups of 1 lb.	
<ul> <li>learn some English</li> </ul>	Each	
and metric units of	<ul> <li>gram of candy</li> </ul>	
weight	• ounce of candy	
<ul> <li>compare the pound</li> </ul>	Classroom Calculator	
and the kilogram	poster (A Beka)	
<ul> <li>understand the</li> </ul>	division flashcards	
concept of	arvision masheuras	
multiplication		
• learn the terms <i>factor</i>		
and product		
• understand that any		
number times zero is		
zero and any number		
times one is that		
number		
<ul> <li>memorize</li> </ul>		
multiplication table		
two		
<ul> <li>understand the</li> </ul>		
concept of division		
<ul> <li>understand that</li> </ul>		
division is the		
opposite of		
multiplication		
• learn the term <i>quotient</i>		
<ul> <li>understand that any</li> </ul>		
number divided by		
one is that number		
<ul> <li>understand that</li> </ul>		
dividing by two is the		
same as finding one		
half of a number		
	•	

# **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
The student will  count beyond 10,000  round to the nearest ten  memorize families 1-17  estimate sums  add with carrying to ten thousands  borrow with zeros in the minuend  solve with missing facts  solve with extra facts  find perimeter  find how many coins and bills in a given amount  make change  find one third of a group and number  compare on half, one third, and one fourth  find one fourth of a number  measure a square or rectangle to find the perimeter  memorize multiplication tables 2-5  find the missing factor  solve multiple combinations with multiplication  learn division tables 2-4  solve multiple combinations with division	<ul> <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> <li>student text</li></ul>	<ul> <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
The student will	oral drill	student text	<ul> <li>individual</li> </ul>
<ul> <li>round to the nearest</li> </ul>	<ul> <li>speed drill</li> </ul>	Arithmetic 2 (A Beka)	assignments
dollar	small group work	<ul> <li>teacher text</li> </ul>	<ul> <li>oral responses</li> </ul>
<ul> <li>find the dimes' and</li> </ul>	<ul> <li>board work</li> </ul>	Arithmetic 2 (A Beka)	<ul> <li>speed drills</li> </ul>
pennies' place value	<ul> <li>scrap paper practice</li> </ul>	<ul> <li>Holy Bible</li> </ul>	<ul> <li>quizzes</li> </ul>
<ul> <li>understand hundred</li> </ul>	<ul> <li>individual practice</li> </ul>	<ul> <li>chalkboard</li> </ul>	• tests
thousands	• demonstration	<ul><li>chalk</li></ul>	
<ul> <li>memorize addition</li> </ul>	<ul> <li>hands-on activities</li> </ul>	<ul> <li>Math Mountain Game</li> </ul>	
and subtraction	<ul> <li>class games – Math</li> </ul>	(A Beka)	
families 1-18	Mountain, Row	• ball	
add and subtract	Relay, Beat the Clock,	• can	
dollars and cents	Capture the Card,	<ul><li>block</li></ul>	
solve division word	Four Corners,	<ul> <li>rectangular box</li> </ul>	
problems	<ul> <li>flannel board</li> </ul>	<ul> <li>Drill Set A Flashcards</li> </ul>	
align decimal points	<ul> <li>recitation of facts</li> </ul>	(A Beka)	
when adding and subtracting dollars		• Teach-a-Coin Set (A	
and cents		Beka)	
<ul> <li>read line graphs</li> </ul>		<ul> <li>play money bills</li> </ul>	
<ul> <li>plot points on a line</li> </ul>		Process Flashcards (A	
graph		Beka)	
• tell time to the minute		• clock	
<ul> <li>read temperatures that</li> </ul>		• Classroom	
are below zero		Thermometer (A	
memorize		Beka)	
multiplication tables		Place Value Concept  Cords (A. Polso)	
2-5		Cards (A Beka)  • clear, plastic shoe bag	
<ul> <li>learn division tables</li> </ul>		<ul><li>clear, plastic shoe bag</li><li>Felt Fractional Circles</li></ul>	
2-5		(A Beka)	
		• ruler	
		Going and Growing	
		Gauge (A Beka)	
		• 1-100 Counting Chart	
		(A Beka)	
		• calendar	
		Mercury Mouse	
		Thermometer (A	
		Beka)	
		Classroom Calculator	
		Chart (A Beka)	
		Big Rolling Ruler (A	
		Beka)	
		<ul> <li>Fifty Nifty States</li> </ul>	
		Chart (A Beka)	