UNIT 2.01

Math	Add & subtract to 20
Science	Geology
Culture	Middle East
Communications	Phonics/Biographies
The Bible	Genesis-Leviticus
The Arts	Middle East
Personal Development	Character
Technology	Machines 1

KNOWLEDGE SERIES

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Introduction

Welcome to OnSchooler!

Whether you have graduated from The Foundations Series or are transferring in to The Knowledge Series from another program, we hope that you will enjoy the lessons and have great academic success.

All of our lessons are organized into five Series of units.

- The Foundations Series covers traditional preschool, kindergarten and first grade skills. Students master their shapes and colors, letters and numbers, reading, writing and math in this Series, as well as essential personal skills such as following instructions, using scissors, cleaning up activities and performing personal hygiene tasks. Students beginning at age 3 in our program typically complete this by age 6 or 7.
- The Knowledge Series and the Skills Series cover the material normally covered in grades 2-12, with the exception of advanced maths such as Trigonometry and Calculus. With the Standard schedule, this takes 8 years to complete. This can be cut down to six years with a year-round schedule, or even less with an Accelerated schedule. Students who begin in The Foundations Series at age 3 will typically complete this at age 13 or 14.
- The Specialty Series (not yet available) covers advanced high-school through junior-college material, on par with excellent college-prep high school programs around the world. Students completing this curriculum can take college equivalency exams typically worth two years of college credits. Students who have followed our curriculum from the beginning will typically complete this at age 17 or 18.

As you begin this first unit of The Knowledge Series, there are a few structural notes that will help you plan and organize for the term:

- Each term in The Knowledge Series and the Skills Series have 100 lessons: 15 each of the major subjects (Math, Science, Communication and Culture)and 10 each of the minor subjects (The Arts, Personal Development, Technology and the Bible).
- The minor subjects are an essential part of the curriculum: they help create connections between the major subjects. For example, the computer programming lessons in Technology combine math, Communications and logic skills. These help make the major subjects “stickier” in the memory, plus they are a lot of fun and will bring out skills in students who may not easily excel in the major subjects.
- With the Standard schedule, students do just two lessons each day. Each of those lessons includes an on-line and a hands-on component. Suggested schedules are included; new and young students should begin with a Decelerated schedule at least for the first two weeks before switching to the Standard schedule.
- Before the first day of each term, we recommend a Prep Day to organize materials, save favorite links to resource websites, print and cut out hands-on activities, save learning songs to a CD, and so forth. If you are missing a few materials for the first week (i.e. things you are ordering but have not yet arrived) you can just rearrange your schedule a little to do those lessons later.
- If you do not take off any vacation/sick days, it takes 10 weeks (50 instructional days) to complete each term on the Standard schedule, followed by 3-5 days for final exams and typically 1-2 weeks for vacation and prepping for the next term. If you are home schooling, we recommend just planning your schedule one week at a time until you get an idea of how long it will take each of your children to complete their lessons.

	The Knowledge Series	The Skills Series
Communications	Clear written communication: handwriting, typing, spelling, vocabulary, basic grammar, punctuation, sentence structure, paragraphs and five-paragraph essays. Fluent at reading with inflection. Can grasp subtle meaning in written and spoken communication.	Powerful mastery of the English language: expanded vocabulary, persuasive speech involving both a clear message and supporting body language, able to glean information from ancient texts, reference works and the internet. Can create professional and business documents as well as creative and entertaining works such as cartoons and plays.
Math	Absolute mastery (both accuracy and speed) of the basics of math: arithmetic with whole numbers. Deep understanding of the values of very small (decimal and fraction) and very large (exponential) numbers and how to do calculations with them. Ability to solve any type of arithmetic "word problem" using these skills.	Expansion of problem-solving skills to use the tools of algebra and geometry to solve even more complex problems. Can analyze any "word problem" to create and solve equations using variables, graphs and geometric relationships to solve everyday problems in a wide variety of fields.
Culture	By the end of unit six, label every country in the world on a blank map along with major physical and political features. By the end of unit twelve, create a timeline from memory highlighting all the major civilizations in human history including notable figures, historical events, and cultural developments.	By the end of unit six, create a timeline from history highlighting the major eras of US history including notable figures, events and cultural developments; be conversant on any topic in US history. By the end of unit twelve be conversant on the current international situation on these topics: economics, government, religion, dining and other social events, tourism, and political hot topics.
Science	After three units each in (macro)biology, botany, geology and physics: master the skills of observing, questioning, experimenting, collecting data and drawing conclusions. Use correct scientific terms and taxonomy, convert between metric units and develop an awareness of flaws in logic that lead to incorrect conclusions.	After three units each in microbiology, chemistry, physics and astronomy: master the skills of questioning assumptions, measuring and calculating very small and very large quantities, creating and executing controlled experiments, reading ancient original texts and modern scientific journals to understand the progress (and mistakes) of scientific history, and use science skills to solve problems.
The Arts	First six units: study the arts of each continent along with the Culture sequence. Last six units: practice and develop artistic skills inspired by historically significant developments in graphic arts, music, textiles and fashion, theater, architecture and technology.	First six units: continue to develop personal artistic skills with projects inspired by developments in US history. Last six units: focus on one artistic strand to develop professional-level skills; produce at least one high-quality project, ideally a collaboration with other students.
Technology	First six units: two each in simple machines, electronics and coding. Next six units: half History of Technology (coordinates with Culture strand) and half coding (coordinates with Math strand).	Half coding (combines logic with Math and Communication strands) and half applied technology. Ability to program a computer to create mathematic and scientific models, games and other practical applications. Ability to repair everyday technology and use technology to create new solutions.
Personal Development	Half vital personal skills, half physical education. Covers everything from flossing and nutrition to making friends and dealing with bullies. Develop flexibility, strength, speed, endurance and coordination.	Half practical psychology and sociology, half physical education. Students identify and solve their personal problems, make a life plan and improve the world. They also monitor and improve health and fitness levels each unit.
Bible/ 2nd Language/ Study Hall	Read selected Bible stories, memorize famous verses, and apply principles to daily life (w/ Pers. Dev. strand). (If not using the Bible strand, use this time slot for a dedicated 2nd language or a general study hall period.)	Read through the Bible in English with light study of the ancient languages of the original text. Study the overarching themes of the Bible, its impact on modern life (with Culture strand), and everyday applications (with Personal Development).