

# Core Knowledge Is:

## *Solid*

Many people say that knowledge is changing so fast that what students learn today will soon be outdated. While current events and technology are constantly changing, there is nevertheless a body of lasting knowledge that should form the core of a Preschool-Grade 8 curriculum. Such solid knowledge includes, for example, the basic principles of constitutional government, important events of world history, essential elements of mathematics and of oral and written expression, widely acknowledged masterpieces of art and music, and stories and poems passed down from generation to generation.

## *Sequenced*

Knowledge builds on knowledge. Children learn new knowledge by building on what they already know. Only a school system that clearly defines the knowledge and skills required to participate in each successive grade can be excellent and fair for all students. For this reason, the Core Knowledge Sequence provides a clear outline of content to be learned grade by grade. This sequential building of knowledge not only helps ensure that children enter each new grade ready to learn, but also helps prevent the many repetitions and gaps that characterize much current schooling (repeated units, for example, on pioneer days or the rain forest, but little or no attention to the Bill of Rights, or to adding fractions with unlike denominators).

## *Specific*

A typical state or district curriculum says, "Students will demonstrate knowledge of people, events, ideas, and movements that contributed to the development of the United States." But which people and events? What ideas and movements? In contrast, the Core Knowledge Sequence is distinguished by its specificity. By clearly specifying important knowledge in language arts, history and geography, math, science, and the fine arts, the Core Knowledge Sequence presents a practical answer to the question, "What do our children need to know?"

## *Shared*

Literacy depends on shared knowledge. To be literate means, in part, to be familiar with a broad range of knowledge taken for granted by speakers and writers. For example, when sportscasters refer to an upset victory as "David knocking off Goliath," or when reporters refer to a "threatened presidential veto," they are assuming that their audience shares certain knowledge. One goal of the Core Knowledge Foundation is to provide all children, regardless of background, with the shared knowledge they need to be included in our national literate culture.

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## A Sample of the Core Knowledge Sequence

These excerpts represent only a very small and selective sampling. Please see the Core Knowledge Sequence for our complete curriculum in detail.

### Kindergarten: Visual Arts

**Painting:** line and color in such works as Matisse's *The Purple Robe*, Picasso's *Le Gourmet*, Mary Cassatt's *The Bath*, Henry O. Tanner's *The Banjo Lesson*, and Diego Rivera's *Mother's Helper*.

**Sculpture:** Statue of Liberty, mobiles of Alexander Calder, Northwest American Indian totem pole

### First Grade: World History

**Early Civilizations:** Ancient Egypt

**Geography:** Africa, Sahara Desert  
Importance of the Nile River, floods and farming

**Pharaohs:** Tutankhamen, Hatshepsut  
Pyramids, and mummies, animal gods, Sphinx

**Writing:** hieroglyphics

### Second Grade: American History

#### Civil Rights

Susan B. Anthony and the right to vote  
Eleanor Roosevelt and civil rights and human rights  
Mary McLeod Bethune and educational opportunity  
Jackie Robinson and the integration of major league baseball  
Rosa Parks and the bus boycott in Montgomery, Alabama  
Martin Luther King, Jr. and the dream of equal rights for all  
Cesar Chavez and the rights of migrant workers

### Third Grade: Math

#### Fractions

Recognize fractions to one-tenth  
Identify numerator and denominator  
Write mixed numbers  
Recognize equivalent fractions (for example,  $1/2 = 3/6$ )  
Compare fractions with like denominators using the signs  $<$ ,  $>$ , and  $=$

#### Geometry

Identify lines as horizontal, vertical, perpendicular, parallel  
Polygons: recognize vertex; identify sides as line segments; identify pentagon, hexagon, and octagon  
Identify angles: right angle; four right angles in a square or rectangle  
Compute area in square inches and square centimeters

## **Fourth Grade: Science**

### **Electricity**

Electricity as the flow of electrons

Static electricity

Electric current

**Electric circuits:** closed, open, and short circuits

Simple circuit (battery, wire, bulb, filament, switch)

Conductors and insulators

How electromagnets work

Using electricity safely

## **Fifth Grade: American History and Geography**

### **Westward Exploration and Expansion**

Early exploration of the west: Daniel Boone, Cumberland Gap, Wilderness Trail

**The Louisiana Purchase:** Lewis and Clark, Sacagawea

Pioneer land routes: Santa Fe Trail and Oregon Trail

**Rivers:** James, Hudson, St. Lawrence, Mississippi, Missouri, Ohio, Columbia, Rio Grande

**American Indian resistance:** Tecumseh attempts to unite tribes to defend their land

**"Manifest Destiny" and conflict with Mexico**

The Mexican War

## **Sixth Grade: Language Arts**

### **Fiction and Drama**

The Iliad and The Odyssey

The Prince and the Pauper

Julius Caesar

### **Writing and Research**

Write a research essay, with attention to

- asking open-ended questions

- gathering relevant data through library and field research

- summarizing, paraphrasing, and quoting accurately when taking notes

- defining a thesis

- organizing with an outline

- integrating quotations from sources

- acknowledging sources and avoiding plagiarism

- preparing a bibliography

## **Knowledge Builds on Knowledge**

We learn new knowledge by building on what we already know. Students in Core Knowledge schools know a lot, because they are offered a coherent sequence of specific knowledge that builds year by year. For example, in sixth grade they should be ready to grasp the law of the conservation of energy because they have been building the knowledge that prepares them for it, as shown in this selection from the physical science strand of the Core Knowledge Sequence:

### **Kindergarten:**

Magnetism, the idea of forces we cannot see. Classify materials according to whether they are attracted to a magnet.

### **First Grade:**

Basic concept of atoms. Names and common examples of the three states of matter. Examine water as an example of changing states of matter in a single substance. Properties of matter: measurement.

### **Second Grade:**

Lodestones: naturally occurring magnets. Magnetic poles: north-seeking and south-seeking poles. Magnetic fields (strongest at the poles). Law of attraction: unlike poles attract, like poles repel.

### **Fourth Grade:**

Atoms: all matter is made up of particles too small to see. Atoms are made up of even smaller particles: protons, neutrons, electrons. Concept of electrical charge: proton has positive charge; electron has negative charge; neutron has no charge. "Unlike charges attract, like charges repel" (relate to magnetic attraction). Properties of matter: mass, volume and density. The elements: basic kinds of matter.

### **Fifth Grade:**

Atoms are constantly in motion; electrons move around the nucleus in paths called shells (or energy levels). Atoms form molecules and compounds. The Periodic Table: organizes elements with common properties.

### **Sixth Grade:**

Kinetic and potential energy: types of each. Energy is conserved in a system. Heat and temperature. Three ways energy is transferred: conduction, convection, and radiation. Energy transfer: matter changes phase by adding or removing energy. Expansion and contraction.

## **Benefits of Core Knowledge**

### **For Students**

Provides a broad base of knowledge and a rich vocabulary  
Motivates students to learn and creates a strong desire to learn more  
Provides the knowledge necessary for higher levels of learning and helps build confidence

### **For the School**

Provides an academic focus and encourages consistency in instruction  
Provides a plan for coherent, sequenced learning from grade to grade  
Promotes a community of learners — adults and children  
Becomes an effective tool for lesson planning and communication among teachers and with parents  
Guides thoughtful purchases of school resources

### **For Parents and the Community**

Provides a clear outline of what children are expected to learn in school  
Encourages parents to participate in their children's education both at home and in school  
Provides opportunities for community members to help obtain and provide instructional resources