

Key Skills in Early Childhood (Children Ages Birth to Five)

The skills children develop during their early years are the cornerstone for their future growth and development. To ensure a child is ready to enter school prepared for success, it is critical that they have opportunities to develop competencies and skills across all domains of development. They must continually gain an understanding of the world around them and have opportunities to develop analysis and reasoning skills. Children need to be able to make connections between new learning and real world ideas and events.

They must also understand and use increasingly complex vocabulary and sophisticated language structures through conversations with peers and adults. Children must develop and demonstrate attention, sustained engagement, and persistence to tasks which can be achieved through appropriate, interactive experiences and through high-quality feedback from adults.

In summary, we must shift our care and education of young children to teach them to:

1. Understand print concepts, develop phonological awareness, recognize letters and words, and express ideas verbally and through drawings, symbols and written representations
2. Understand basic numeracy concepts such as rote counting and number awareness, sorting, classifying, comparing, patterning and spatial relationships
3. Develop social and emotional competencies (social relationships, self-regulation, persistence, initiative and curiosity, attention, engagement and persistence)
4. Understand basic science (making observations, exploring the world using their senses, using appropriate science vocabulary) and social studies concepts (self-awareness, relationships within family and community)
5. Demonstrate abilities, either assisted or unassisted, to develop gross and fine motor skills

Key Skills in Early Literacy Development (Grades K-2)

Children's literacy skills strongly predict later academic outcomes. Their brains are wired to learn language, but literacy skills require explicit and direct instruction reinforced through practice over a period of years. To become proficient readers and writers, they must possess solid competencies in oral language, have an awareness of the sound structures of their language, and be able to find and understand meaning in written symbols, including writing.

Students must be able to read, understand and express understanding of complex, grade-level texts. To do so, teachers must implement effective strategies that address children's needs to possess skills in accurate word reading (decoding skills), fluency and comprehension. This includes teaching students to:

1. Demonstrate understanding of spoken words, syllables, and sounds
2. Know and apply phonics and word analysis skills in decoding words
3. Read with sufficient accuracy and fluency to support comprehension
4. Build opinions about texts, topics, and experiences through discussions
5. Use a combination of drawing and writing to express understanding of texts, topics, and experiences

Key Skills in English Language Arts (Grades K-12)

In college, careers, and life, students will regularly have to read complex and varied materials, make meaning of them, and act on what they have read. Research shows one factor that distinguishes a college- and career-ready student from one who is not ready is the ability to read and understand grade-level complex texts. Therefore, engaging students with high-quality grade-level text is the centerpiece of an effective ELA classroom.

Students must also be able to communicate effectively about those complex texts both orally and in writing. Writing and speaking are not meant to happen in isolation—they help students and adults communicate their ideas about the information they are taking in from texts and other sources. Thus, in classrooms, we must move beyond teaching isolated reading and writing strategies and instead push our students to connect reading, writing, speaking, listening and language.

In summary, we must shift our instruction so we are equipping our students to:

1. Read and understand complex texts:
 - a) Use language and vocabulary to comprehend what texts say
 - b) Use topics, themes, and main ideas to comprehend what texts mean

2. Express understanding of complex texts:
 - c) Build opinions about texts through discussions using evidence
 - d) Write about texts using evidence, grade-level conventions, and spelling

Key Skills in Mathematics (Grades K-12)

Today's increasingly competitive job market requires that students have a strong foundation in science, technology, engineering and mathematics (STEM). Jobs in the STEM sector are some of the fastest growing, highest paying, and most important to the economy as a whole. To succeed in STEM-related majors in college and STEM-related careers, our students must be able to do more than just "answer-getting." They must be able to understand and describe the concepts underlying algorithms, and they must be able to apply their understanding to novel and real-world scenarios.

Therefore as educators, it is incumbent on us to refrain from relying on teaching our students easy to use shortcuts alone; instead we must spend real time helping students uncover the true meaning of mathematics.

In summary, we must shift our instruction so we are equipping our students to become fluent and proficient with mathematical concepts. To do this:

1. They demonstrate understanding, procedural skill, and fluency
2. They refine mathematical reasoning through speaking, writing, and solving problems
3. They apply understandings to real world examples and non-routine problems and tasks

Key Skills in Social Studies (Grades K-12)

To be productive members of society, students will regularly have to be critical consumers of information they read, hear, and observe. They will need to be able to gain knowledge from a wide array of sources and examine and evaluate that information to develop an informed opinion. They must also be able to make connections between what they learned about the past and their present situation to understand how and why events happen, people act in certain ways, and ideas become facts. Therefore, engaging students in exploring questions through authentic sources is the focus of an effective social studies classroom.

Students must also be able to communicate effectively about their ideas, using information gained from the sources as well as their background knowledge learned through personal experiences and discussions with others. Thus, in classrooms, we must move beyond lecturing students and asking them to recall facts and instead push our students express their understanding through speaking and writing.

In summary, we must shift our instruction so we are equipping our students to:

1. Build an understanding of social studies content
 - a) Examine authentic sources to build knowledge of social studies content
 - b) Explore meaningful questions about sources and content to build understanding
2. Develop and express claims that demonstrate their understanding of content
 - a) Make connections among ideas, people, and events across time and place
 - b) Express understanding of content using evidence from authentic sources and outside knowledge

Key Skills in Science (Grades K-12)

Technology has increased the scale at which new scientific data is collected, the rate of scientific advancements, and the accessibility of scientific conversations. This information overload demands a different type of education in which students find information, assess it for reliability, understand the content and underlying ideas of what they read, and critically think to problem solve and apply knowledge to new situations. Thus teachers must expand instruction beyond the traditional textbook and/or “canned” experiment approach. They must engage students with rich resources and data to investigate, prompt deep thinking around scientific content, and provide opportunities for complex problem solving. Teachers must require that students engage with authentic research, work collaboratively with their peers, and communicate verbally and in writing about science.

In summary, we must shift our instruction so students are required to think, read, and act like scientists. To do this:

1. They engage in science questions
2. They base explanations on evidence
3. They connect explanations to scientific knowledge
4. They communicate explanations effectively