

Science Curriculum for Individuals on the Autism Spectrum

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Teaching science requires educators to determine the needs of each student. Science requires students to have a grasp of language, concepts, and some math. Science is standards based and assessed in Indiana as a part of state-wide testing. Technology has also added a new dimension to teaching science. It is important to use curriculum and programs that are successful, and research based whenever possible.

Below is a listing of some examples of curriculum and programs that can be used to teach science to individuals on the autism spectrum. In addition to these programs, please be aware that there are many other supplemental programs, books, strategies, and resources that are not included but are available. Many of these resources can be accessed by Indiana residents via the <u>Library at the Indiana Institute on Disability and Community</u>. Inclusion on this list does not imply endorsement of any one program.

Resource List

Achieve 3000° Science Solutions

- Grades: 6 to 8
- Description: Online, customizable curriculum that addresses the practices, concepts, and core ideas of science.
- Vendor/Company: Achieve3000[®] Believe
- https://www.achieve3000.com/

Achieve 3000° World of Biology

- Grades: 6 to 12+
- Description: Online, supplemental curriculum for middle and high school. Includes lessons at four different reading levels and uses real-life scenarios.
- Vendor/Company: Achieve3000[®] Believe
- https://www.achieve3000.com/

Biology: Exploring the Science of Life

- Grades: 6 to 12+
- Description: Teacher-directed and hands-on activities teach the origin, structure, growth, and evolution of species while learning to classify living organisms.
- Vendor/Company: McGraw-Hill Education
- https://www.mheonline.com

Content Essentials for Science

- Grades: K to 6
- Description: Standards-based program that builds essential science concepts using concise academic language, graphic organizers, and strong visuals. Can be used with ELL and at-risk students.

- Vendor/Company: McGraw-Hill Education
- https://www.mheonline.com

Early Science

- Grades: K to 5
- Description: Educational package that includes the core concepts of the five senses, rock cycle, earth and sky, and life cycle. Aligned to standards. Includes materials and manipulative for experiments.
- Vendor/Company: Attainment Company
- https://www.attainmentcompany.com

Earth & Space Science: Exploring the Universe

- Grades: 6 to 12
- Description: Teacher-directed and hands-on activities that teach the history of our planet and the
 configuration of Earth's surface, core, oceans, and atmosphere. Explores how environmental changes
 affect our weather.
- Vendor/Company: McGraw-Hill Education
- https://www.mheonline.com

Explore Life Science

- Grades: 6 to 12
- Description: A standards-based curriculum that includes 79 lessons covering 4 themes: Ecology, Evolution, Cell Biology, and Human Body Systems.
- Vendor/Company: Attainment Company
- https://www.attainmentcompany.com/

Exploring Science Series

- Grades: 5 to 12+
- Description: Teaches areas of earth, life, and physical science. Lessons are adapted for student access with Boardmaker symbols and simplified language.
- Vendor/Company: Attainment Company
- https://www.attainmentcompany.com

Khan Academy[©]

- Grades: Pre-K to 12
- Description: Supplemental online practice exercises and instructional videos to enhance science curriculum. Includes interactive challenges, assessments, and videos from any computer with access to the web. Parents and teachers can view what their students are learning online.
- Vendor/Company: Khan Academy[©]
- https://www.khanacademy.org/

Physical Science: Exploring Matter and Energy

- Grades: 6 to 12+
- Description: Teacher-directed and hands-on activities teach the basic principles of matter and energy integrating physics, chemistry, and mathematics. Discusses the physical laws of how events happen in their world.
- Vendor/Company: McGraw-Hill Education
- https://www.mheonline.com

Pro-Ed, Inc.

- Grades: Pre-K to 12+
- Description: Hundreds of adapted science program options ranging from basics to leveled texts.
 Program adaptations include visual formats, simple concepts, adapted reading levels, and hands-on activities. View vendor online for additional options.
- Vendor/Company: Pro-Ed, Inc.
- https://www.proedinc.com

Sammy's Science House

- Grades: K to 5
- Description: Activities that teach biology, weather, and observation skills.
- Integrates active science teaching methods with experiments, card-matching games, worksheets, and assessments.
- Vendor/Company: Attainment Company
- https://www.attainmentcompany.com

Science A-Z®

- Grades: K to 5
- Description: Numerous resources that engage students to read, write, think about, and do science. The
 website has units in Life, Earth, Physical, and Process Science. The units include resources offered at
 three reading levels.
- Vendor/Company: Learning A-Z[®]
- https://www.sciencea-z.com

Science and Health Series

- Grades: 6 to 12+
- Description: Series of books adapted with Boardmaker® symbols to provide easier access to the standards-based content. Includes *Exploring Earth*, *Exploring Life*, and *Exploring Physical Science* plus *Health*, *Growth* & *Development*.
- Vendor/Company: Attainment Company
- https://www.attainmentcompany.com

Science Leveled Daily Curriculum

- Grades: K to 6
- Description: This curriculum provides 3 levels of a year-long Science curriculum that focuses on a variety
 of topics. There are 8 units included in each level plus a review unit. Each unit includes a pre-test, posttest, grading rubric, anchor chart, and 20 activities.
- Vendor/Company: The Autism Helper
- Teachers Pay Teachers
- https://www.teacherspayteachers.com

Science Step by Step

- Grades: 6 to 12
- Description: Includes 52 science experiments ranging from 2-10 steps, arranged by units: water, air, light, sounds, gravity, and magnets. Lessons are presented with picture-based directions in a sequence.
- Vendor/Company: Attainment Company
- https://www.attainmentcompany.com/

SRA Science

• Grades: 3 to 12

- Description: Science Laboratory: Life, Earth, Physical
- Supplemental program to use alongside your science curriculum. Emphasizes a variety of topics in Life, Earth, and Physical Sciences. Includes materials and reading selections on a variety of these science topics at two different reading levels. Focuses on science vocabulary and comprehension of science context.
 - Snapshots Video Series Grades: 3 to 5
 Supplemental science programs that focus on helping struggling learners to understand core science concepts and difficult science vocabulary.
 - Snapshots Simply Science Grades: 1 to 5
 Videos, Read Alouds, Science Songs, and Vocabulary Photo Cards are used to help learners understand cores science concepts and difficult science vocabulary.
- Vendor/Company: McGraw-Hill Education
- https://www.mheonline.com

Starfall[®]

- Grades: Pre-K to Early Elementary+
- Description: Online reading resources and curriculum that integrates math, science, health, phonics, creative arts, social studies, physical movement, literacy, social-emotional development, and more.
- Vendor/Company: Starfall®
- https://www.starfall.com/h/

Teaching to Standards: Science

- Grades: 6 to 12
- Description: Curriculum that focuses on the core concepts of earth, biology, waters, and chemistry. Aligned to standards. Includes hands-on experiment with each lesson.
- Vendor/Company: Attainment Company
- https://www.attainmentcompany.com

Unique Learning System® News2You

- Grades: Pre-K to 12+
- Description: This online, standards-based program is designed as functional curriculum for individuals with ASD and developmental delays. Is divided into monthly thematic units with 30 lesson plans and downloadable materials. Uses SymbolStix[®] graphics. Includes three levels of differentiation for diverse learners.
- Vendor/Company: Unique Learning System®
- https://www.n2v.com