

Curriculum: Success in Spiraling

Cognitive theorist Jerome Bruner wrote, “We begin with the hypothesis that any subject can be taught in some intellectually honest form to any child at any stage of development” (1960).

We believe that even our youngest students at BASIS schools are capable of engaging with and understanding the most difficult material if it is structured and presented appropriately. BASIS Curriculum Schools ensures major course topics are “spiraled,” or re-addressed at each grade level with increasing complexity.

Using science as an example, we have outlined below how the topic of understanding living things is introduced in the Early Learning Program (PreK-K) and then re-introduced throughout the Primary Program (grades 1-4) in contexts that are increasingly challenging.

USING SCIENCE AS AN EXAMPLE OF SPIRALING

- In Kindergarten, students learn about the basic structures of organisms and their life cycles, naming body parts, exploring the five senses, and distinguishing living from non-living things.
- In grade 1, students develop a broader understanding as they sort and classify living and non-living things based on whether or not they have basic needs, produce offspring, respond to stimuli, and have cells.
- By grades 3 and 4, this understanding is applied during explorations of ecosystems and food chains, the relationships of organisms to their habitats, and the specific functions of the body systems.

By structuring the science curriculum in this way, our students’ fundamental skills are strengthened over time because they are given the opportunity to deepen their knowledge at each point of exposure to the topic.

The success of our spiraling curriculum is supported greatly by our two-teacher model as well. The Subject Expert Teachers (SETs) for every core class consistently collaborate with the Learning Expert Teachers (LETs) to make sure the curriculum is aligned and create an inter-connected learning experience for each student.

In addition to these science topics recurring at a deeper, more meaningful level year after year, many are also directly associated with math concepts that are concurrently taught (sometimes in the same lesson or day!). This inter-disciplinary approach maximizes comprehension, retention, and the ability to apply their understanding.

There are dozens of specific learning objectives each year that are woven throughout the science curriculum as students move from Preschool discovery to the advanced AP® courses in high school (whose successful completion significantly increases the likelihood of admission to prestigious foreign universities). We see this learning really flourish when our science sequence allows the students to fully focus on biology, chemistry, and physics from 6th grade. As Bruner theorized, our middle school students demonstrate they can exceed expectations and comprehend very advanced material because they have such a solid foundation laid during the Primary Years.