



Brain Health: It's SPECTacular

Science Behind the Story
I Can Do It! (🌈 A Social Health Story)
(1st – 6-7 yrs)

This story talks about how being able to do things by yourself and learning how to control your behaviors (self-control) are things that make you feel good and make your brain healthy.

🌈 As you grow, you will be able to do more and more things all by yourself.

Humans are born immature (Schacter, 2014). Young infants cannot speak, walk, use tools, or take the perspective of others. These are all skills that must be acquired during their lifetime. This immaturity means that comes at risks, as young humans cannot take care of themselves, but it also allows the environment to influence development of the human body and brain (Meltzoff, 2009). This allows for the development of more complex learning.

During the first year of life, the brain of an infant is teeming with structural activity as neurons grow in size and complexity and trillions of new connections are formed between them (Meltzoff, 2009). The brain continues to grow during childhood and reaches the adult size around puberty (Meltzoff, 2009). The development of the cerebral cortex has “sensitive periods” – or developmental stages - during which connections between neurons are more plastic and susceptible to environmental influence (Meltzoff, 2009).

🌈 Learning what you can do and what you cannot do is important. It is also important to know that while you may not be able to do something by yourself now – you may be able to do it later.

Children need to be educated on the fact that skills, both physical and cognitive, develop at different times in different individuals (Birney, 2011). Children need to be aware of what they can and cannot do at any given time (Eun, 2017; verywellmind.com)

🌈 As everyone grows at different rates, it is best not to compare yourself to others.

For both the development of the body and the brain, there is a general timetable that is followed (Lenroot, 2006). However, it is important for the individual and others to realize that there is variability in the timetable (Largo, 2003).

At every stage in the lifespan of humans it is best not to compare yourself to others, “for always there will be greater and lesser persons than yourself” (Desiderata, Max Ehrmann, 1927). Comparisons to others for children (and adults), can have an effect on their self-esteem (Jan, 2017).

- Crosscutting Concepts:
 - **Structure & Function:** The way an object is shaped or structured determines many of its properties and functions.
 - Systems in the natural and designed world have parts that work together.
 - Objects and organisms can be described in terms of their parts.
 - **Stability & Change:** For both designed and natural systems, conditions that affect stability and factors that control rates of change are critical elements to consider and understand.
 - Things may change slowly or rapidly.
 - Some things stay the same while other things change.
 - **Cause & Effect:** Events have causes, sometimes simple, sometimes multifaceted. Deciphering causal relationships, and the mechanisms by which they are mediated, is a major activity of science and engineering.
 - Events have causes that generate observable patterns.
- Related Grade Level Content
 - Humans mimic animal behaviors by designing and creating technology.

ASCA (American School Counselors Association): Personal/Social Development

- **Standard A:** Students will acquire the knowledge, attitudes and interpersonal skills to help them understand and respect self and others.
 - PS:A1 Acquire Self-knowledge
 - PS:A1.1 Develop positive attitudes toward self as a unique and worthy person
 - PS:A1.4 Understand change is a part of growth
 - PS:A2 Acquire Interpersonal Skills
 - PS:A2.3 Recognize, accept, respect and appreciate individual differences
- **Standard B:** Students will make decisions, set goals and take necessary action to achieve goals.
 - PS:B1 Self-knowledge Application
 - PS:B1.4 Develop effective coping skills for dealing with problems
 - PS:B1.5 Demonstrate when, where and how to seek help for solving problems and making decisions
- **Standard C:** Students will understand safety and survival skills.
 - PS:C1 Acquire Personal Safety Skills
 - PS:C1.6 Identify resource people in the school and community, and know how to seek their help
 - PS:C1.11 Learn coping skills for managing life events

References:

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