

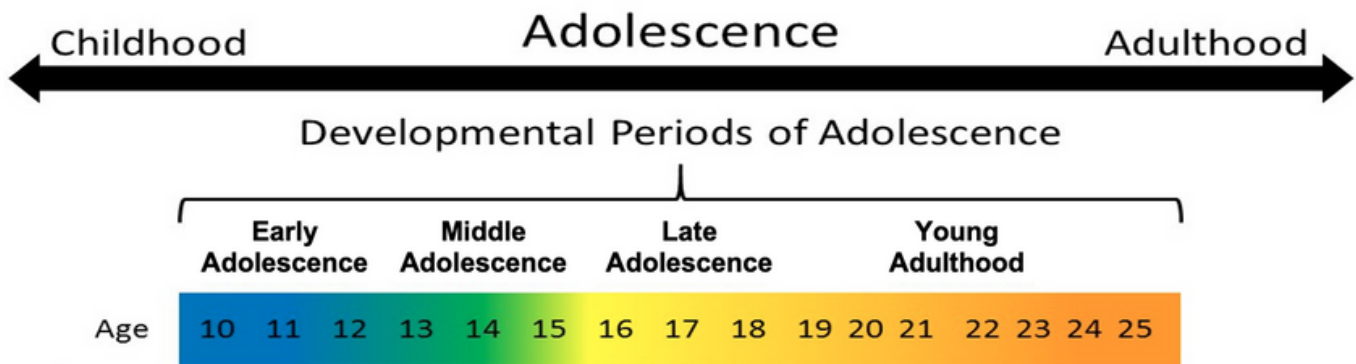
ADOLESCENCE IN BRIEF I

*The Adolescent Brain and
The Science Behind
Learning and
Development*



Photo by Allison Shelley for EDUimages

THE STAGES OF ADOLESCENCE: PUBERTY TO YOUNG ADULTHOOD



NASEM, 2019

NEUROPLASTICITY

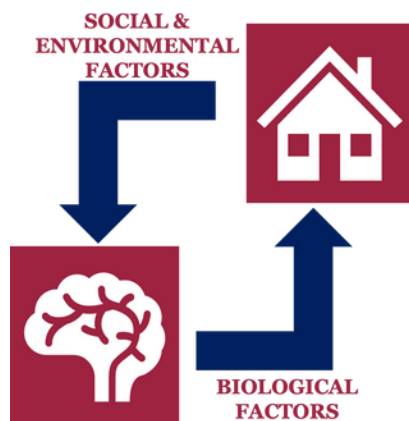
The adolescent brain undergoes two types of "plasticity":

1. Structural Plasticity - This refers to physiological changes in the prefrontal cortex and stronger neural connections.

2. Functional Plasticity - The brain enters a process of pruning and myelination, becoming more specialized and efficient, and better at handling complex mental tasks.

Try this: present challenging tasks to all young people. Use scaffolding activities to build advanced cognitive skills.

image: SBTS2018



BRAIN ENVIRONMENT INTERACTIONS

The dynamic interplay between the environment and the adolescent brain fosters learning

THE ADOLESCENT...

Experiences puberty-related hormonal changes that influence how they perceive their bodies.

image: Freepik



Is hypersensitive to identity development, peer and adult evaluation, critical social issues, and their own agency.

image: Freepik

Is becoming more capable of advanced cognition (reasoning, problem solving, future thinking, planning).

image: Freepik



Is impacted by environmental factors that greatly determine how they overcome stress and adversities.

image: Freepik

DEVELOPMENT IS MULTIFACETED

The adolescent undergoes experiences that affect their development at different times and stages:

Consider this: some adolescents are already voters, employees and even parents. Society needs their contributions -both today and tomorrow- and needs to help them face extreme social and political disruptions, anxiety, loneliness, trauma and unprecedented challenges in school.

