

# SIMILARITIES OF PARENTS AND OFFSPRING STUDY GUIDE

**Genetics:** the scientific study of how genes control the characteristics of plants and animals

**Heredity:** the passing of physical characteristics from parents to offspring

- If a beagle dog and a pug dog have offspring, the offspring would look like a combination of a beagle and a pug.
- A little girl's parents have freckles which best explains why the little girl has freckles and why her newborn brother will most likely have freckles.
- If a boy and his sisters can roll their tongue and play the piano, and his mother and brother can't roll their tongues and play piano, you can most likely conclude that his father can roll his tongue.

**Genes:** carry the information that determines traits, which are features or characteristics that are passed on to you or inherited from parents

**Trait:** a quality or characteristic of a living thing; parents must have a way of transferring traits to their offspring

Some traits are not inherited because organisms adapt to the environment and change throughout their life to survive.

**Behavior:** how a living thing responds to its surroundings

**Inherited Trait:** a characteristic a living thing gets from its parents; include features and behaviors; passed from parents to offspring

Examples: eye color, hair color, dimples, height

**Acquired (Learned) Trait:** a characteristic that a living thing develops after it is born

Examples: ability to talk, walk, getting scars, learning to read, language, music ability, athletic skill (swimming)