

Trait Tracking

DID YOU KNOW?

- Humans share 99.9% of our DNA with one another. What makes us unique and different can be found in 0.1% of our DNA. No two people have exactly the same DNA, not even identical twins.
- DNA gives us our traits such as eye color and hair color. Most traits are passed down from parents, however, they can also skip a generation and come from your grandparents or even your great-grandparents. You cannot have all of your mom's traits AND all of your dad's traits! You are born with some traits from each parent.
- Every living thing has traits that make it unique. That includes bacteria, fish, dogs, flowers and us.
- Some traits are very helpful for animals in the wild. For animals, traits such as fur color, speed, and how well an animal can hear help it survive.



HERE'S WHAT YOU CAN DO

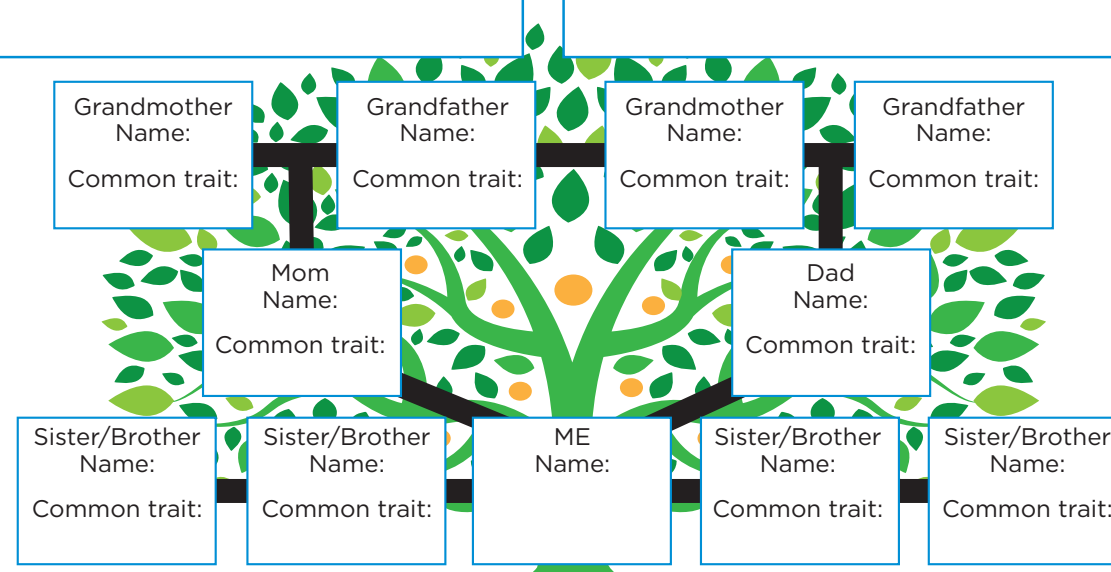
Create a Family Tree

Like a detective, make a genealogy or history of yourself by tracking traits of your parents, grandparents and other family members going back in time. Family histories are full of secrets, tales of adventure and doing great things. Ask your parents to tell you a crazy, exciting, or brave story about a family member in your family tree.

Traits that I have in common with my family:

1. (like being right-handed)
- 2.
- 3.
- 4.

Cool family story:



My Family Tree

FIND OUT MORE

- **Genetics Home Reference - Everything you wanted to know about your gene, genetic traits, genetic causes of health conditions and so much more** <https://ghr.nlm.nih.gov/primer>
- **Pictures of Traits You Can Compare Your Own To** <https://learn.genetics.utah.edu/content/basics/observable/>
- **Smithsonian Institution - Genome: Unlocking Life's Code** <https://unlockinglifecode.org/explore/virtual-tour>
- **American Museum of Natural History** <https://www.amnh.org/explore/ology/genetics>
- **National Geographic Kids Guide to Genealogy**
by TJ Resler

HERE'S YOUR OWN TRAIT TRACKER

Start Trait Tracking in search of what you have in common and what makes you uniquely different from your family or friends.

ME		TRAIT	FAMILY or FRIEND	
Yes	No		Yes	No
		<p>Do You Have Dimples? *Fun Fact: Dimples are highly heritable, meaning that people who have dimples tend to have children with dimples – but not always because genes are predictable and can skip a generation.</p>		
		<p>Are You Earlobes Attached? *Fun Fact: If earlobes hang free, they are detached. If they connect directly to the sides of the head, they are attached. Earlobe attachment and shape are inherited traits.</p>		
		<p>Clasp Your Hands Together. Which Thumb Is On Top? *Fun Fact: 45% of people place their right thumb over their left, and 55% place their left thumb over their right one.</p>		
		<p>Can You Curl Your Tongue? *Fun Fact: 70% of people can curl their tongues. The ability to curl your tongue is slightly higher in girls than in boys. 30% of people cannot curl their tongue.</p>		
		<p>Are You Right or Left Handed? *Fun Fact: 93% of people are right-handed and only 7% are left-handed.</p>		

Question: How many traits do you have in common?

- _____
- _____
- _____

Question: List 2 or 3 traits which are different?

- _____
- _____
- _____

Question: Who else in your family might have similar traits to you? Don't forget grandpa and grandma or your uncles and aunts.

- _____
- _____
- _____

*<http://www.ncbi.nlm.nih.gov/omim/>

GENETIC TRAITS

Trait	Dominant	Recessive	Trait
Curly Hair			Straight Hair
Roll Tongue			Can't Roll Tongue
Brown or Black Hair			Blonde or Red Hair
Straight Thumb			Hitchhikers Thumb
Cleft Chin			Flat Chin
Widows Peak			Straight Hairline
Has Dimples			No Dimples
Has Freckles			No Freckles
Detached Earlobe			Attached Earlobe
Brown Eyes			Blue Eyes

