Investigation 12 *Inherited Human Traits*

Use after completing Section 6.1.

Skills: Predict; Organize data; Cooperative learning; Graph; Calculate; Generalize; Infer

Background Information

Many inherited traits in humans are observable. Data Table 12.1 lists 11 observable inherited traits and shows which trait is dominant and which is recessive.

Data Table 12.1 *Inherited Human Traits*

Trait	Dominant	Recessive
Hairline	Widow's peak (W) (pointed in front)	Straight across
Earlobes	Unattached (F) (free)	Attached
Eyesight	Nearsightedness/Farsightedness (N)	20/20 vision
Eye color	Brown or any other color except blue (B)	Blue
Tongue-rolling	Roller (R) (can roll edges up)	Nonroller
Freckles	Present (C)	Absent
Space between two front teeth	Present (T)	No space
Chin	Dimple in center (D)	No dimple
Thumb	Hitchhiker's thumb (H) (last joint bends top of thumb backwards)	Straight
Folded hands	Left thumb over right thumb (L)	Right thumb over left thumb
Number of fingers per hand	6 (S)	5

Problem

What are some observable inherited traits in humans? What is the relationship between the frequency of a trait in a population and whether the trait is dominant or recessive?

Goals

In this investigation you will conduct a survey of observable inherited traits in humans. You will graph your results and calculate the frequency of each trait in a population. You also will infer possible genotypes for some of the traits.