

Activity 4.1.5 Our Physical Features

Purpose

DNA holds the genetic roadmap that defines the traits for the physical appearance and function of animals and plants. Although individual animals and plants share common physical traits within a species grouping, subtle differences are still visible among each individual within the species.

Humans are a species of animal and several major traits define our common body structure and function, such as walking upright, use of thumbs, and warm-blooded circulatory system. However, each person has subtle differences in physical traits, such as their height, eye color, and skin tone. These subtle differences define the individual and are a product of genetic combinations supplied by parents. How do genetic traits differ within this class?

Materials

Per group of students:

- Class roster

Per student:

- *Agriscience Notebook*
- Pencil

Procedure

You and your classmates will survey your class to determine the different physical traits represented around the room. The first step is to develop categories of physical traits that vary among individuals and then list the specific variances within the categories.

Part One – Brainstorming Categories

Your teacher will lead you in a brainstorming exercise to determine the variances found among human physical traits. You should only provide variances of traits, such as eye color or height not common traits, such as thumbs and two legs. The variances of traits will be used to survey your classroom. Once the class has agreed upon 5-8 categories of variances to use for the class survey, your teacher will divide you into groups to complete Part Two.

Part Two – Surveying Classmates

1. Your teacher will assign your group one of the categories determined in Part One.
2. Write the name of each classmate in the first column of Table 1.
3. Record the specific appearance of each classmate for the category you are researching. For example, if your category is eye color, you will record the color of each of your classmate's eyes in Table 1.

Name: Kristen Smith

Table 1. Survey of a Specific Trait	
The trait your group is researching:	Dimples
Student Name	Description of Trait
Dakoda	dimples
Kristen	dimples
Zoey	dimples
Hallie	dimples
Miguel	none
Brendon	none
Tieler	dimples
Ryan	dimple
Austin	none
Jasmine	none
Eden	none
Kelcey	none
6 people have dimples	
6 people have no dimples	
50% of my class has dimples and then 50% dont	

Part Three – Reporting Results

Use the information determined in Table 1 to organize the students into categories by common variances. Be prepared to report to the class how many variances were found for the trait that your group surveyed and the number of students that possessed those traits in your class.

Conclusion

1. What is a genetic trait? Something that is passed on from a parent

Name: Kristen Smith

2. How are common traits used to define a species?

fingers can define if you're a human or not

3. How do traits vary within species?

like on dogs their traits is the color of their fur and on humans it could be their skin color