Name: _____

CASE

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.

Table 1. *Survey of a Specific Trait*	
The trait your group is researching:	
Student Name	Description of Trait
Mackenzie	Hair color -brown
Noah	Hair color-dirty blonde
Chris	Hair color-brown
Seth	Hair color-blonde
Estfaney	Hair color-black
Guage	Hair color-brown
Cody	Hair color-dirty blonde
Nick	Hair color-black
Wilard	Hair color-brown
Titan	Hair color-brown
Lori	Hair color-brown
Katlian	Hair color-blonde
Cody marple	Hair color-blonde
Cydiney	Hair color-brown
Blonde%	28.5%
Brown%	35.7%
Red%	7.1%
Black%	28.5%

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 you get from your parents.

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

Livebirth, thumbs, number of fingers,

5. How do traits vary within species

Eye color- haze-l28.5 blue-28.5 brown-21.5 green-21.5

Height 5-5’3-21% 5’4-5’8 -50% 5’9-6’0-29%

Detached ear lob-yes 57% No-43%

Hair line straight 98.8% peak-7.2%

Bent pinky-stright 78% bent 22%

Double joint 35.8% 64.2%