Name _____ Class _____ Date _____

Investigating Traits

Background: Humans and all other living things have many traits. For example, humans have hair—that's one of the characteristics of mammals. But is human hair all the same? This quick investigation of some human traits will help you understand a little more about how traits vary, or differ, between people.

Instructions: Working with a partner, make observations about the following human traits. Create a data table to record your observations in your science journal. Then add your information to the appropriate places on the class graph for each of your traits.

1. **Tongue Rolling:** When you stick out your tongue, can you roll up the edges on each side?
2. **Dimples:** When you smile, are there small indentations in your cheeks?
3. **Attached earlobes:** Do the tips of your ears hang partially free, or are they completely attached to the side of your head?
4. **Freckles:** Do you have small, reddish-brown spots on your skin?
5. **Widow's peak:** Pull your hair back from your forehead. Does the hairline come down to a point near the middle of your forehead? If so, you have a widow's peak. Otherwise, your hairline will be straight.
6. **Hand-clasp:** Clasp your hands together. Is your left thumb on top? Or is your right thumb on top?
7. **Hair texture:** Is your hair naturally curly or wavy? Or is it straight?
8. **Handedness:** Are you right-handed? Or left-handed? Or do you do some things with your right hand and some with your left?

Analysis/Interpretation: Once you and your partner have collected your data, add sticker dots to the appropriate places on the class graph for each of the traits.

Use the class graph to answer the following questions. Write your responses in your science journal.

1. Does every person in the class have the same version of each of the traits? Explain your answer.
2. Do any of the traits have equal numbers of people with different versions? If so, which traits?
3. Would you expect more similarities in traits between classmates or between members of the same family? Explain your reasoning.
4. When there are different versions of a trait, it is called **variation.** Write some scientific questions about variation. What do you want to know next about variation? Here are some guidelines for coming up with good scientific questions:
    - Is the question based on observations you made?
    - Can we find an answer to the question by investigating and testing?
    - Would answering this question help us determine a cause-and-effect relationship?

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