Help George Find His Family!

Are you ready to become a scientist? Today you will take on the role of a geneticist as you help Baby Alien George solve a serious problem.

Baby alien George has recently discovered that there was a mix-up at the hospital on the day he was born. The parents he has known his whole life are not actually his biological parents! Three potential sets of parents were found, and it is your job to help George determine his true parentage by doing Punnett squares. Each set of parents has three different traits that you must look at in order to determine if George belongs to them: fur color, number of eyes, and number of horns.

First Complete the Punnett squares for each set of potential parents. Then, use the results of the Punnett squares to answer the questions and determine who George's parents are. Finally, you must write a paragraph reflecting on your experience. In your own words, you will write what you did to figure out the answer, what you learned about George's parentage, and how you completed your mission. Your reflection should be at least one full page.

In order to identify George's parents, you will need a few pieces of information:

1. You will be doing Punnett squares for three characteristics: number of eyes, fur color, and number of horns

    - Three eyes are dominant (E), and two eyes are recessive (e)
    - Blue fur is dominant (F), and purple fur is recessive (f)
    - Two horns are dominant (H), and one horn is recessive (h)

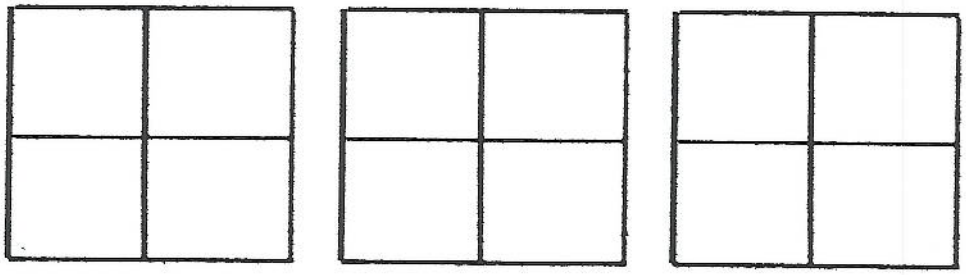
2. George has the following characteristics: blue fur, three eyes, and one horn

3. Below you will find a list of the names of each of the families, the characteristics of each of the parents, and blank Punnett squares to fill in.

The Venetians

- The mother is Ee, ff, and Hh
- The father is ee, ff, and Hh

Eyes Fur Horns



1. Is it possible for the Venetians to have an offspring with three eyes? If so, give the %. If not, explain why.

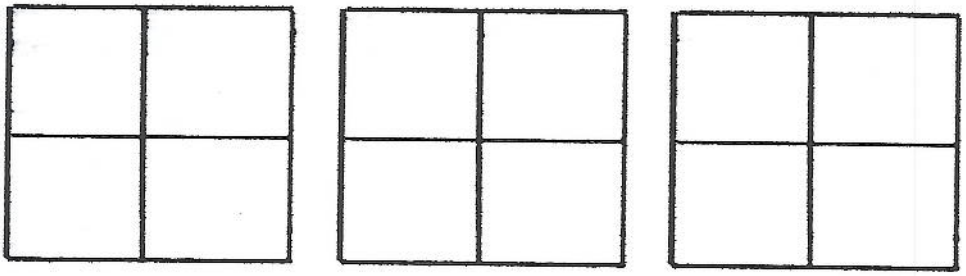
2. Is it possible for the Venetians to have an offspring with blue fur? If so, give the %. If not, explain why.

3. Is it possible for the Venetians to have an offspring with one horn? If so, give the %. If not, explain why.

The Neptunes

- The mother is ee, Ff, and hh
- The father is EE, Ff, and Hh

Eyes Fur Horns



1. Is it possible for the Neptunes to have an offspring with three eyes? If so, give the %. If not, explain why.

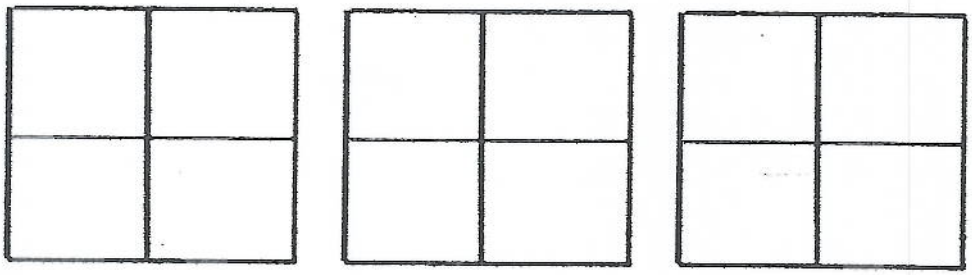
2. Is it possible for the Neptunes to have an offspring with blue fur? If so, give the %. If not, explain why.

3. Is it possible for the Neptunes to have an offspring with one horn? If so, give the %. If not, explain why.

The Plutonians

- The mother is Ee, ff, and Hh
- The father is Ee, FF, and HH

Eyes Fur Horns



1. Is it possible for the Plutonians to have an offspring with three eyes? If so, give the %. If not, explain why.

2. Is it possible for the Plutonians to have an offspring with blue fur? If so, give the %. If not, explain why.

3. Is it possible for the Plutonians to have an offspring with one horn? If so, give the %. If not, explain why.

Conclusion:

1. Only one of these families could possibly be George's true parents. Which family is it?