

# Lab: Furry Family

## HONORS BIOLOGY: CHAPTER 6

**Background:** The value of studying genetics is in understanding how we can predict the likelihood of inheriting particular traits. This can help plant and animal breeders in developing varieties that have more desirable qualities. It can also help people explain and predict patterns of inheritance in family lines.



One of the easiest ways to calculate the mathematical probability of inheriting a specific trait was invented by an early 20th century English geneticist named Reginald Punnett. His technique employs what we now call a Punnett square. This is a simple graphical way of discovering all of the potential combinations of genotypes that can occur in children, given the genotypes of their parents. It also shows us the odds of each of the offspring genotypes occurring.



Reginald Crundall Punnett (1875 – 1967) was a British geneticist who co-founded, with William Bateson, the *Journal of Genetics* in 1910. Punnett is probably best remembered today as the creator of the Punnett square, a tool still used by biologists to predict the probability of possible genotypes of offspring. His *Mendelism* (1905) is sometimes said to have been the first textbook on genetics; it was probably the first popular science book to introduce genetics to the public.

### Procedure:

1. Log onto the following URL: <http://vital.cs.ohiou.edu/steamwebsite/downloads/FurryFamily.swf>
2. Start by clicking “Play”
3. Now click on “View Tutorial”. View entire Tutorial before you begin game.
4. When you complete tutorial, click on link “Start”
5. Follow the onscreen instruction to complete game
6. When you have complete game, take a screenshot of the last page that says “Congratulations” and save as a google doc. (see instructions below to take screenshot)
7. Show your teacher your screenshot to receive credit!

*How to Take a Screenshot on a Chromebook: Let's say you need to take a snap of your entire screen. To do this you press the 'Ctrl' and 'Window Switcher' keys at the same time:*

