**Student Worksheet: Doggie data**

**Directions**: Use the interactive graph “Median life spans of purebred U.K. dog breeds” from the *Science News* article “[Explore the expected life spans of different dog breeds](https://www.sciencenews.org/article/dog-breed-life-span-united-kingdom)” and answer the set of questions below as directed by your teacher.

**A dog’s life span**

1. Look at the interactive graph. Using the search bar, choose five dog breeds and add them to the graph. Are there any patterns that you notice? Which breed has the longest median life span? Which has the shortest? Compare your answers with a partner.

2. For the dog breeds you’re familiar with, are there any physical characteristics that are similar among the longest living dogs? What about the shortest living dogs? Why do you think these characteristics might make a difference? Do your observations align with what the scientists observed about how body and head size might influence canine life span?

3. What is the percent difference between the median life span of a miniature dachshund and a bulldog?

4. What is the median age of a species? And why do you think researchers used median age values as opposed to other calculations, such as mean or mode values? Where could you find additional information about where and how the scientists manipulated their data for the study?

5. Name some limitations of the study. What would make the study better? What are some questions you have?

**Extension**

Refer to the article “[Calculating a dog’s age in human years is harder than you think](https://www.sciencenews.org/article/calculating-dog-age-human-years-is-harder-than-you-think).” How would the dog breed affect the equation? How might that change the “Dog days” graph? Explain what additional studies would be needed to find the relationship and graph how dog age translates to human years for other breeds.