7.4.4 e1 A Scientist's Best Friend Narrative

Time: 15-20 minutes	**Anchor Phenomenon:** Why have dogs of the same breed look so different than they did 100 years ago?
Big Idea: Humans use technologies to select desired traits in organisms.	
CCCs Cause and Effect Structure and Function	**Practices** **Obtain, evaluate and communicate information** **Constructing explanations**

EPISODE SNAPSHOT: Students **obtain information** as to how the genetic traits of dogs have changed over the last century due to human influence.

GATHERING

Teacher shows the pictures from the provided article to the students. With each pair of pictures, students write their observations for each picture on their students sheet, identifying similarities and differences between the past and present structure for each breed of dog.

REASONING

Students write a short explanation of what caused the changes in the same breeds to dogs in just a hundred years' time. *(Teacher note: As students explain that humans bred the dogs to look this way, give this a name: Selective Breeding).*

COMMUNICATING

In a classroom discussion, students **construct explanations** for why humans would want to breed dogs for certain traits (e.g. cuteness, particular work). *(Teacher note: if time allows, you may also want to discuss what the problems associated with Selective Breeding of dogs have been--i.e. Health problems of specific breeds, like how bulldogs need c-sections to remove pups)*

Assessment: Student explanations in both the written assignment and the classroom discussion identify that genetic traits of dogs are being selected for by humans over time.	**Materials, resources, handouts, etc:** 7.4.4 e1 ScientistsBestFriend 7.4.4 e1 ScientistsBestFriendPPT More resources: ● http://www.pbs.org/wnet/nature/dogs-that-changed-the-world-introduction/1273/ ● http://www.pbs.org/wnet/nature/dogs-that-changed-the-world-selective-breeding-problems/1281/