



NEXT GENERATION SCIENCE STANDARDS (NGSS)

Thoughtful viewing of *Superpower Dogs*, along with classroom discussion, investigation and reflection by students, supports the classroom treatment of the following Life Science Standards for upper elementary and middle school:

UPPER ELEMENTARY STANDARDS, LIFE SCIENCE

- 4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction.**



Dogs have very sensitive ears and noses to help them find food, identify each other and communicate with other dogs.

- 4-LS1-2. Use a model to describe that animals receive different types of information through their senses, process the information in their brain and respond to the information in different ways.**



Dogs receive smell information and through training, learn to distinguish the smell of a live human from a pile of old clothes, for example. When they find the smell they are looking for, they communicate that to their human partner by barking, sitting down or showing some other “alert” behavior.

MIDDLE SCHOOL STANDARDS, LIFE SCIENCE

- MS-LS4-5. Gather and synthesize information about technologies that have changed the way humans influence the inheritance of desired traits in organisms.**



The various dog breeds shown in the film were created by animal husbandry. Humans deciding which dogs would breed with each other in order to select for specific traits. Those traits include coloration, coat, exceptional hearing or exceptional sense of smell.

- MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.**



Dogs have great sensory receptors and clearly can remember smells for a long time. Through intensive training, dogs can be taught to use their senses to help humans.