1. Stimulus – is anything that can trigger a response in any living thing.
2. Receptor – a molecule found in or on a cell that receives and responds to signals from its environment.
3. The receptors in the skin are:
   1. Mechanoreceptors – responsible for the touch sensor in the skin.
   2. Thermoreceptors – can detect whether the environment is hot or cold.
   3. Nociceptors – responsible for the detection of pain in the skin.
4. a. Your body takes 1/10 of a second to 1 second to respond to the pain.
5. Many animals share similar mechanisms of pain detection with humans.
6. The difference is that different animals developed different pain responses based on their needs or environments. Another difference is that animals do not have the same ability to communicate their pain the same way humans do.
7. The hearing range for humans in 20Hz to 20,000 Hz but dogs have a wide hearing range compared to humans with the range being 40Hz to 60,000 Hz.
8. The light reflects the object, then the pupil adjusts to control the amount of light enters the eye. The images are focused upside-down on the retina. The retina contains cells called rods for low light vision and cones for color vision. The brain detects patterns and movements.
9. For this demonstration, grab a piece of paper and then write out a couple of random words. When you finish this, put the paper to the side a get a clean sheet of paper and try recalling the same words from backwards. Your brain will store the information temporarily in the order, you listed these words but not the other way around. This is a clear demonstration of how short-term memory works.
10. Decay in terms of memory is the idea that memories naturally weaken over time.
11. Depending on how you design the interface, you can easily recall and recognize from a memory a certain design on the interface.
12. a. Detectives will most likely use Abductive reasoning.

b. It involves using observation and background knowledge to get an explanation for a situation.