Name:

- Read through this worksheet to familiarize yourself with the questions you will be answering while you watch the video.
- In case you get lost while watching the video, the bolded numbers below are timestamps for where you can find the information to the questions.

Directions: Please fill out this sheet. If you get lost while you are watching. Just look to the bolded time stamp to find where in the video to fill in the answer.

Okay, take a deep breath through your nose. It's your _____ _____ _____*and it's breathtakingly powerful.*

(0:20). As an adult, you can distinguish about _____different smells.

(0:23) _____**%** *of your nasal cavity is used just to filter that air before it hits your lungs.*

(0:31). *But at the very back of your nose is a region called the* _____ _____

(0:36). A little patch of skin that's key to everything you smell. The olfactory epithelium has a layer of olfactory _____ _____

(0:43) *special neurons that sense smells, like the taste buds of your nose. When order molecules hit the back of your nose, they get stuck in a layer of mucus covering the* _____ _____

(0:50). As they dissolve, they bind to the olfactory receptor cells, which fire and send signals through the olfactory tract up to your brain.

It turns out that your brain has _____million different olfactory receptors _____ **(1:22)**

But smell, because it evolved before most of your other senses, takes a direct route to these different regions of the brain, where it can trigger your fight-or-fight response, help you recall _____ or make your mouth water **(2:14).**

The inability to smell a scent is called _____, **(2:56)** and there are about _____ known examples.

(3:35) *It turns out that how something* _____*is closely related to how it smells.*

Reflection Questions:
Please answer the following questions.

1. Look at: 1:07 in the video. How many times bigger is a dog's olfactory epithelium than a human one?

2. Look at 1:22 in the video. How many different olfactory receptor neurons does the human brain have?

3. Look at 1:46 in the video. What is the only neuron in the body that gets replaced regularly, every four to eight weeks.

4. Look at 3:00 in the video. What is one example of Anosmia?

5. Look at 3:35 in the video. How does smell influence how you taste food?