Name _____ ID# _____ Section:_____

Sensation & Perception
Lab 1: Functional anatomy of the eye

1. Near point and accommodation

The closest distance you can keep an object in focus is called the near point. Using a ruler held close to one eye, place your thumb at the end and bring it forward until it becomes blurry. **Record** your near point below and **describe** why you can't get any closer. [Note: if you have corrected vision, it may be beyond 30 cm.]

2. Pupillary reflex

Work with a partner. Very carefully, the observer should quickly flick the pen light (at a 45 degree angle) across the iris. **Describe** what happens to the pupils of both eyes. [Note: this will be a small effect.]
IMPORTANT: DO NOT shine the light directly into the pupil!

3. Floaters

Stare at a white surface (e.g. a wall or blank projector screen). Make sure not to focus on a particular object. Move your eyes around and blink. Can you see any small shadows or shapes floating in your vision? They should move when you try to focus on them. **Describe** what you see and **explain** what they are.

4. Blood vessels within the vitreous humor

Work with a partner. The subject will turn their eyes away, exposing the sclera (white part) of the eye. Very carefully, the experimenter will flash a pen light across the sclera. Do this a few times. **Describe** and **draw** what you see. [Note: some may not see anything.]
IMPORTANT: DO NOT shine the light directly into the pupil!

5. Blind spot

Close one eye. Fixate on the PLUS sign, with the dot or pattern positioned away from your nose. Move card forward and back (8 to 18" from eye) until dot disappears. **Explain** what you see and **why** it happens.

6. Moving dot

Students work in 3 person teams - Holder, Experimenter, and Subject.
Holder props chart so that it extends (at 0^o edge) from directly in front of seated Subject to just beyond his/her peripheral vision on one side (120^o edge), with Experimenter's eyes perpendicular to 90^o mark. Subject fixates on point at 0^o.
Experimenter slowly moves dot along line on chart until Subject responds. It is best to hold wire/stick from above chart, with the dot leading the way.
Subject announces first when (1) dot can be detected, then (2) when color can be identified.

Record below the visual angle where the dot was first detected. **Record below** the visual angle where color was detected. **Explain** why the two measurements should be different.