Honors Biology
Laboratory Activity
Mr. Dooner
Carmel High School NAME: _____PER_____

Familiarization with the Compound Microscope

PART A:
Using the Diagram in Appendix D of the text(p. 1070), identify the parts of the compound microscope at your lab station. Pay particular attention to: course adjustment knob, fine adjustment knob, diaphragm, low, medium, and high power objectives, stage, base, arm, and eyepiece.

At each station there are 2 different models of compound scope. Each student is to familiarize themselves with both models. Do not move the scopes(if you ever were to move them—carry them by the arm and base!)

PART B:
Once you are familiar with the scopes, you may begin practicing your skills with prepared slides. The following slides must be viewed(your choice of low, medium, or high power) and diagrammed:

1) Crossed Fibers(pay attention to depth of field):

2) *Zea mays* stem:

3) Assorted plant tissues(choose one):

4) Slide series- "From egg to tadpole"(view all, but diagram only tadpole)

5) Fish egg cell(blastodisk):

6) Human tissues(choose and diagram one):

7) Computer chip(when finished ALL other tasks):

PART C: Preparing a Wet Mount Slide

1. Obtain a clean microscope slide and a coverslip. A coverslip is very thin, permitting the objective lens to be lowered very close to the specimen.

2. Place the specimen in the middle of the microscope slide. The specimen must be thin enough for light to pass through in.

3. Using a dropper pipette, place a drop of water on the specimen.

4. 4. Lower ONE END of the coverslip so that it touches the side of the drop of water at about a 45 degree angle. Try NOT to trap any air bubbles under the coverslip. If air bubbles are present, gently tap the surface of the coverslip over the air bubble with a pencil eraser.

5. Remove any excess water at the edge of the coverslip with a small piece of paper towel

6. Diagram your slide below: