



## Fruit Fly Larvae Investigation

### STUDENT INSTRUCTIONS

#### Equipment (per pair of students):

- a vial of flies\*
- clear plastic ruler
- a microscope slide\*
- a plastic coverslip\*
- approximately 5 ml of saline
- a magnifier\*
- two fine forceps\*
- an A5-size black plastic dissecting surface\*
- a fine tipped plastic Pasteur pipette\*
- laminated identification keys\*

\* provided by the Gurdon Institute

#### Method:

1. Watch the video that demonstrates the dissection.
2. Place a microscope slide onto the black plastic surface.
3. Add 1-2 drops of saline onto the middle of the microscope slide.
4. Take the plastic cover off the fine forceps and place them carefully on the bench.
5. Get a vial of larvae and gently pick up a large, white-coloured larva with the forceps and put it onto the microscope slide.
6. Use the ruler to measure the length of the larva.
7. Place the magnifier over the slide, turn on the light, and observe the larva. Use the identification key to see what physiological features you can see *before* dissection.
8. With forceps in each hand and the slide under the magnifier, get hold of the at each end and gently pull apart as shown in the video. Gradually tease apart the internal structures.
9. Replace the plastic covers on the forceps.
10. Place one end of the coverslip on the slide and carefully lower the other end onto the slide over the dissected larvae.
11. Observe the slide under a microscope, using the identification key to aid with identifying tissues and organs.
12. Dispose of the used slides and coverslips in the yellow bin provided.
13. Return all other equipment to your teacher. (Be sure to replace the plastic cover on your forceps first!)
14. Wash your hands.

