

Reproductive Systems:

Curriculum Connection:

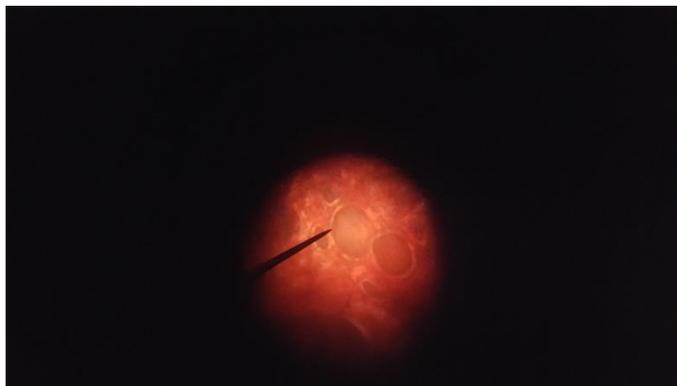
Grade 10 Tissues, Organs and Systems of Living Things

Gr 11 Biology: Genetics (oogenesis, meiosis)

Getting the sample: Chicken farmers generally slaughter their animals in the fall. A list of provincially licensed meat plants can be found on the Ministry of Ontario Agriculture, Food and Rural Affairs website. Most will provide teachers with sample organs from a wide variety of organ systems. STAO's resource Safe ON Science states that as fresh animals are raised for human consumption, it is safe to study their organs. Precautions include using the organs as soon as possible, using gloves and wiping all surfaces that the organs came in contact with, with a disinfectant. Our safety resource Safe ON Science is available from the STAO store.

Preparing the sample: In chickens, the ovaries are attached along the backbone, and located about 6cm from the anus. They appear as a mass of developing eggs ranging in size from microscopic to eggs that are several millimeters in diameter. A small sample of the tissue can easily be removed with sharp scissors, and then a temporary slide can be made by applying pressure to a plastic coverslip. The tissue can be smeared across with the coverslip, making parts of the tissue translucent.

Recording the observation: A cell phone camera was used, by simply holding the cell phone to the eye piece. With practice, several pictures were taken. These were reviewed and the best images were kept.



This was taken using the low power objective. The pointer shows a large ovum.



The images can be run through a series of filters. I use a zeke filter(left image), then a vanilla filter(center image). The image to the right was taken using a zeke filter on the image with the vanilla filter. These special effects can sometimes make for a better, well-defined image. These images can be magnified using the zoom option. At 250x, the images become clear.

For more science activity ideas, plan to attend our STAO conference this spring. David Gervais will be presenting the topic “Biology Activities Do Not Have to Stink” Thursday March 26th (2-3pm), and presenting 3 activities for environmental science in the STAO Playground on Friday March 27th.

Dave Gervais

Chair STAO Safety Committee