

## Observing Yeast

**Objective:** To observe and draw yeast cells and cultures of *Rhizopus stolonifer*, as well as to observe asexual reproduction in yeast.

**Materials:**

slides	suspension of yeast and water (fresh)
coverslips	suspension of yeast in 1% aqueous molasses (24 hour culture)
compound microscope	medicine dropper
forceps	methylene blue stain

**Procedure:**

1. Put one tiny drop of methylene blue stain on each of two slides and set them aside to dry.
2. Place a small drop of the fresh yeast culture on top of the dried methylene blue stain. Cover with a coverslip.
3. Prepare a detailed drawing showing several cells. Label cell membrane, cytosol and nucleus.
4. Repeat step 2 for the 24 hour yeast culture.
5. Prepare a detailed drawing showing several cells. Label cell membrane, cytosol, nucleus, and budding.

**Questions:**

1. What kind of reproduction is represented by the budding yeast cells?
2. Compare the number of budding yeast cells from the two different suspensions. Explain this difference.
3. How does the structure of yeast cells differ from that of *R. stolonifer*?