

Life Science Grade 3 Evaluation

Teacher Section

Overview Kids will demonstrate how well they understand important key concepts from this section.

Suggested Time 45-60 minutes

Objectives Students will be tested on the key concepts of Life Science:

- How the optics of a compound microscope work to make things look bigger.
- How to prepare different types of mounts depending on the specimens you are viewing.
- Populations live in a variety of habitats, and change in those habitats affects the organisms living there.
- Proper recording of data viewed through a microscope.

Materials (one set for entire class)

- microscope
- slides
- cover slips
- 1 dry mount specimen, such as a thread
- 1 bumpy dry mount specimen, such as a coin
- 1 wet mount specimen, such as pond water
- tweezers
- an eye dropper

Lab Preparation

1. Print out copies of the student worksheets, lab practical, and quiz.
2. Have a tub of the materials in front of you at your desk. Kids will come up when called and demonstrate their knowledge using these materials.

Lesson

The students are taking two tests today: the quiz and the lab practical. The quiz takes about 20 minutes, and you'll find the answer key to make it easy to grade.

Lab Practical

Students will demonstrate individually that they know how to mount slides for viewing with a microscope, demonstrate an understanding of the process of osmosis, and simulate inheritance of genetic traits. While other kids are waiting for their turn, they will get started on their homework assignment. You get to decide whether they do their assignment individually or as a group.

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Student Worksheet

Overview Today you're going to take two different tests: the quiz and the lab practical. You're going to take the written quiz first, and the lab practical at the end of this lab. The lab practical isn't a paper test – it's is where you get to show your teacher that you know how to do something.

Lab Test & Homework

1. Your teacher will call you up so you can share how much you understand about life science and how it works. Since science is so much more than just reading a book or circling the right answer, this is an important part of the test to find out what you really understand.
2. While you are waiting for your turn to show your teacher how much of this stuff you already know, you get to get started on your homework assignment. The assignment is due next week, and half the credit is for creativity and the other half is for content, so really let your imagination fly as you work through it. Choose one:
 - a. a short story or skit about the microscope from the perspective of the specimen (don't get too carried with this so you gross out your audience... just imagine you're a protozoa or a daphnia). You'll read this aloud to your class.
 - b. Make a poster that teaches one of the main concepts of microscope optics. When you're finished, you'll use it to teach to a class of younger students and demonstrate the principles that you've learned. You can include magnifiers or different lenses to make it more hands-on.
 - c. Write and perform a poem or song about exploring our world with a microscope. This will be performed for your class.