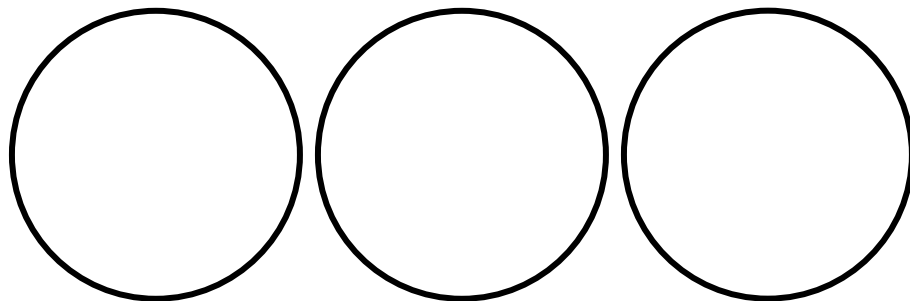


Go to <http://sciencespot.net/>, choose the Kid Zone, and then click the link for *Microscopes* to find the links below.

**Site #1: PBS Microscopes** - Click to launch the activity and wait for it to load.

1. What did you use for your sample for the first slide? \_\_\_\_\_
2. What is the power of magnification for each objective? Low = \_\_\_X Medium = \_\_\_X High = \_\_\_X
3. How do you figure the total magnification? \_\_\_\_\_
4. What is the total magnification for each power? Low = \_\_\_X Medium = \_\_\_X High = \_\_\_X
5. Which is larger: coarse adjustment knob or fine adjustment knob? \_\_\_\_\_
6. Click the STOP button to proceed and follow the directions to use the microscope. You will have to focus the image to learn more about your sample.
7. What are the purple circles? \_\_\_\_\_ What are the blue lines? \_\_\_\_\_
8. At which power do you see the most detail of the individual cells? \_\_\_\_\_
9. At which power do you see more cells (larger view of the entire sample)? \_\_\_\_\_
10. Follow the directions to clean up and set up a new slide. Draw what you see (to the best of your ability) at each power for each specimen listed below.

**Blood  
Cells**

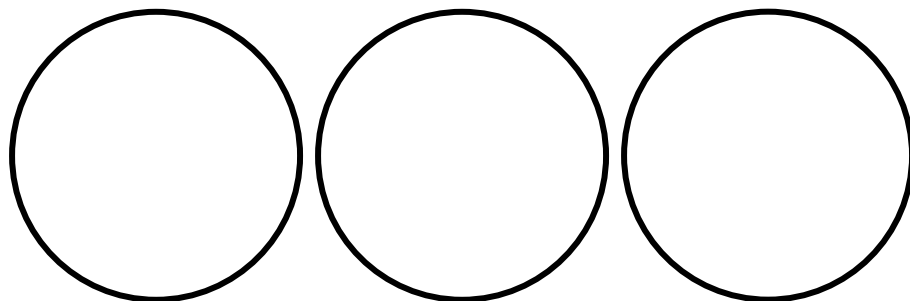


Low Power

Medium Power

High Power

**Bone Cell  
Sample**



Low Power

Medium Power

High Power

**Site #2: Virtual Electron Microscope** - Click and drag the specimens on the left side under the microscope to examine. Then identify the slides by dragging them to the correct spot on the right side of the screen. Write the results below.

- |            |             |
|------------|-------------|
| #1 - _____ | #6 - _____  |
| #2 - _____ | #7 - _____  |
| #3 - _____ | #8 - _____  |
| #4 - _____ | #9 - _____  |
| #5 - _____ | #10 - _____ |

**SITE #3: Magnification Module** - Wait for the activity to load and then select "Apollo Moon Rock" from the pop-up menu.

1. View the rock at each of the different magnifications.
2. Choose three other items from the list and view at the different magnifications.
3. Answer these questions based on what you observed?
  - (a) *At which power do you see the greatest detail?* \_\_\_\_\_
  - (b) *At which power do you see the largest amount of the sample?* \_\_\_\_\_
  - (c) *At which power do you see the smallest amount of the sample?* \_\_\_\_\_
3. Write a sentence (or 2) that summarizes what you noticed as you increased the magnification.

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**SITE #4: Powers of Ten** - Wait for the activity to load. If you need to stop the Powers of Ten display, click the Auto/Manual button under the picture to display arrows that will allow you to go back to the first slide or move ahead.

1. What is the first thing you see? \_\_\_\_\_ How far away is it? \_\_\_\_\_
2. What is the last thing you see? \_\_\_\_\_ How much is it magnified? \_\_\_\_\_
3. Write a sentence (or 2) that summarizes your observations of the Powers of Ten animation.

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**Done with your worksheet? Visit the other sites listed on the Microscopes page!**