

Microscope Mania

Station 1



Directions:

(1) Look at the pictures and guess what they are.



(2) Write your guesses in your notebook.

Station 1

1)

2)

3)

.

.

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HINT:

They are all common objects that might be found in your home or a classroom.

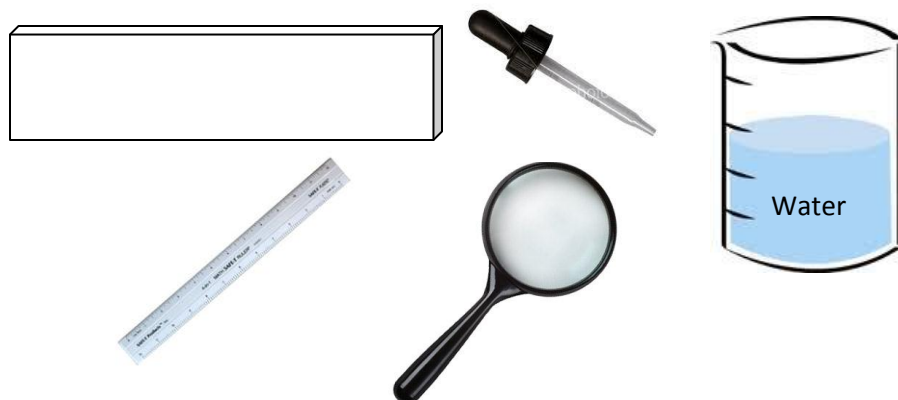
Microscope Mania

Station 2

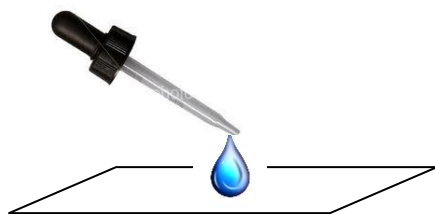
Directions:

(1) You need:

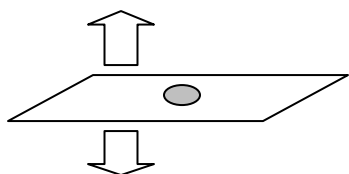
- 1 slide
- eyedropper,
- beaker of water
- ruler
- magnifying glass.



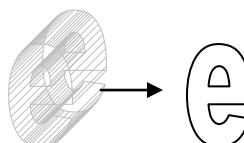
(2) Put 1 drop of water in the middle of the slide and hold over the letter “e” in the box.



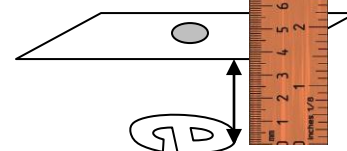
(3) Move the slide up and down until you get the letter in focus.



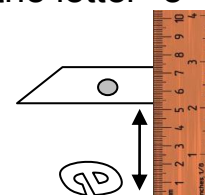
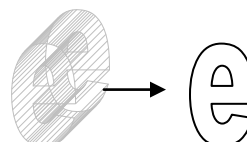
until



(4) Measure the distance between the slide and table.



(5) Place another drop of water in the middle of the slide and hold over the letter “e” again. Repeat steps 3 & 4

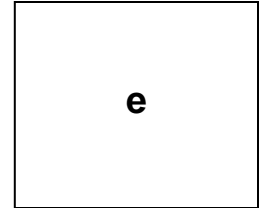


(6) Measure again with 4 drops of water

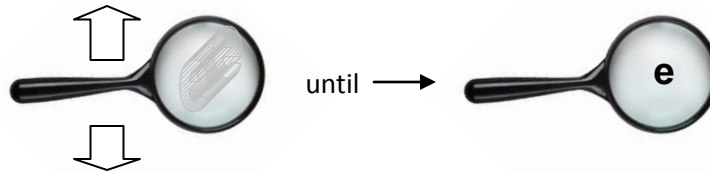


(6) In your book, describe how the view of the “e” changes as you add more drops of water?

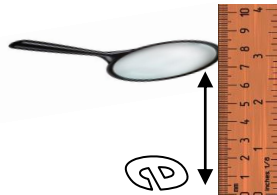
(7) Use the magnifying glass to look at the letter “e”.



(8) Move the magnifying glass up and down until you get the letter in focus.



(9) Measure the distance between the magnifying glass and table.



(10) How does the view of the “e” with the magnifying glass compare to the slide?



VS.



Microscope Mania

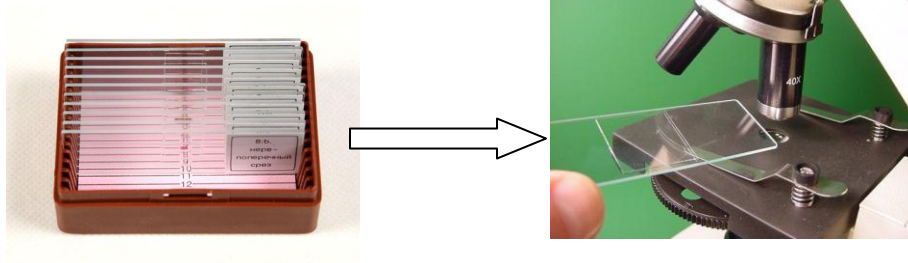
Station 3

Directions:

(1) Put microscope on low power



(2) Select a slide and set it on the STAGE

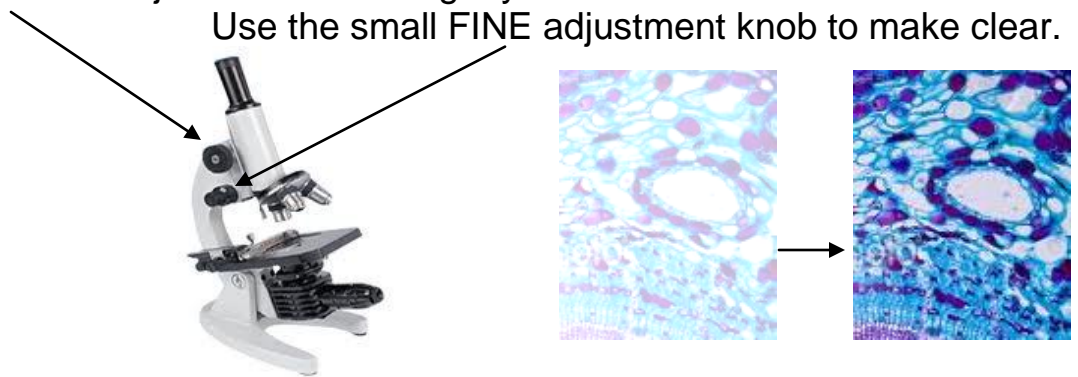


(3) Make sure the slide is centered over the light.



(4) Turn the large COARSE adjustment knob to get your slide in view.

Use the small FINE adjustment knob to make clear.

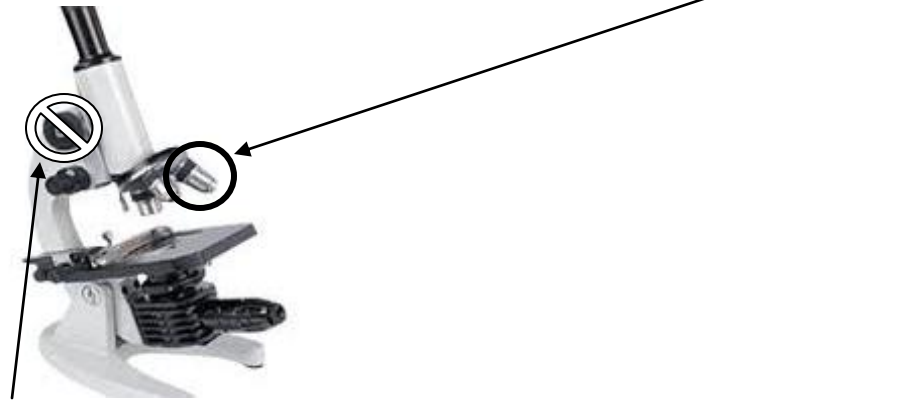


(5) To increase magnification, turn the NOSEPIECE to the next largest LENS.

Use the FINE adjustment knob to sharpen the image.



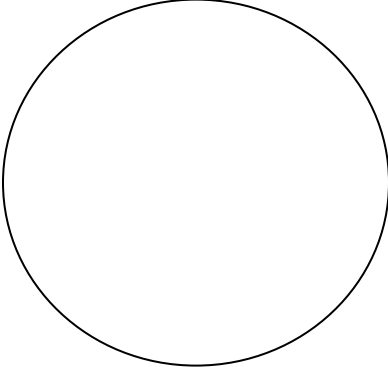
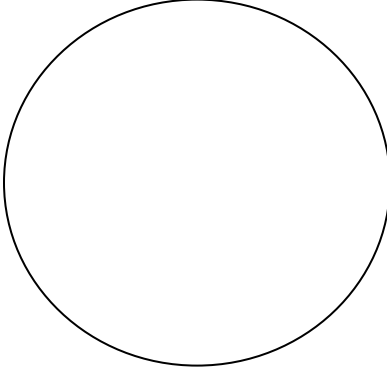
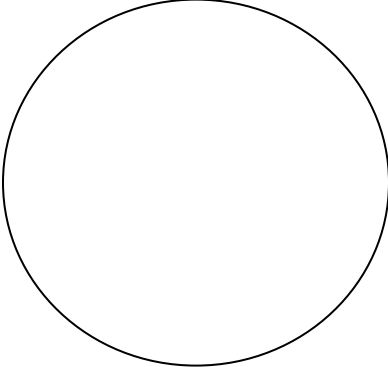
(6) To view your slide under the highest power, turn the nosepiece to so the **LARGEST** lens (longest) is over your slide.



WARNING: Do **NOT** use the **COARSE** adjustment knob with the **HIGHEST** power lens!
It may crack or break the slide.

(7) Draw one slide at all 3 powers of magnification in your notebook.

Station 3

Name of slide		
		
Low Power	Medium Power	High Power
_____ X	_____ X	_____ X

(8) Answer the questions in your notebook.

1) Which lens magnifies the most (short, medium or long)?

2) Why can't you use the coarse adjustment knob with high power?

(9) Clean up

Microscope Mania

Station 4

Directions:

Activity 4A - Vocabulary Challenge

(1) Match the words to their definitions correctly as fast as possible.

(2) Put all words face up on the table

Base

Stage



(3) Hold definitions in your hand



(4) Time how long it takes you to match all the words and definitions

Base

Holds microscope

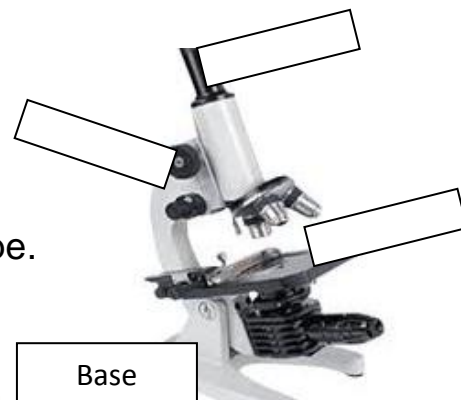
(5) Check your answers & try again



Activity 4B – Parts & Pieces

(6) Place the labels on the correct location on the microscope.

(7) Time how fast can you match the parts correctly



(8) Rate your efforts on these two activities in your notebook and record your time

Ratings: 😊 = Great 😐 = OK ☹️ = Poor

Station 4

Activity	Rating	Best Time
Vocabulary Challenge		
Parts & Pieces		

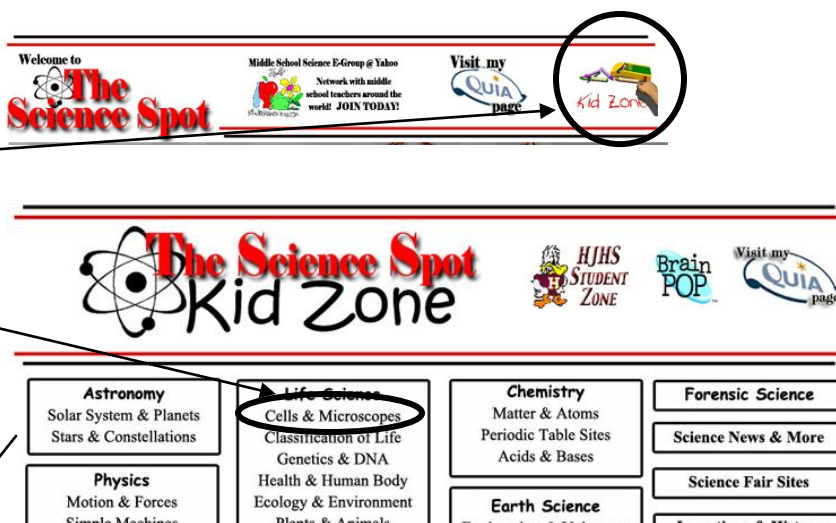
Microscope Mania Station 5

Directions:

(1) Go to sciencespot.net

(2) Click Kid Zone

(3) Click Cells & Microscopes



- [Quia - Cell Organelles](#)
- [Quia - Cell Challenge Board](#)
- [Quia - Cell Rags to Riches](#)

- Mitosis & Meiosis**
- [Cells Alive: Mitosis](#)
- [Cells Alive: Meiosis](#)
- [Center of the Cell: Mitosis](#)
- [Mitosis & Meiosis](#)
- [Cell Cycle & Mitosis Tutorial](#)
- [Nobel: Cell Division Activity](#)
- [NOVA: Mitosis vs. Meiosis](#)
- [Learn Genetics: Mitosis & Meiosis](#)
- [Quia - Cell Reproduction Game](#)

Microscope Activities & Images

- [Virtual Electron Microscope](#)
- [Online Digital Microscope](#)
- [Exploratorium Imaging Station](#)
- [HJHS Mystery Pictures](#)
- [MOS Image Gallery](#)
- [MEMS Image Gallery](#)
- [Dennis Kunkel Image Gallery](#)
- [Nanoworld](#)
- [MicroAngela's Gallery](#)

Microscope Games & Quizzes

- [What in the World - Mystery Photos](#)
- [Microscope Parts Quiz](#)
- [Microscope Parts Quiz 2](#)
- [Quia - Microscope Mania Game](#)

Here are the games you will be using.

(4) Click **What in the World? – Mystery Photos**

(5) Try a few challenges. (Click more to see all challenges)

(6) Try **Quia – Microscope Mania Game** → Word search

(7) Go to **loreescience.ca**

(8) Click Period 1 → Intro to Biology → Microscope Crossword

(9) Try the puzzle

(10) Rate your efforts on these two activities in your notebook.

Station 5

Activity	Rating
What in the world?	☺ ☹ ☹
Word search <u>or</u> Crossword	☺ ☹ ☹