



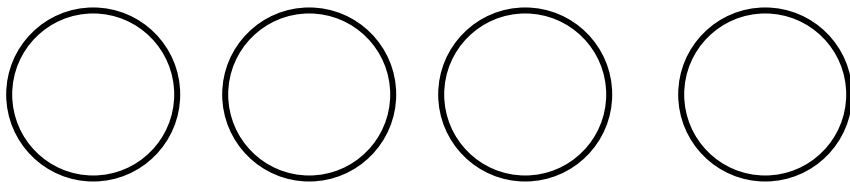
Learning About Cell Theory

Engage

Materials: Did You Really See That Power point (2a from website)

What To Do:

1. Your teacher will show you the following common mistakes that students make when learning to focus the microscope – AIR BUBBLE, COVER SLIP EDGE and TRASH.
2. Your teacher will also show you what you should look for – CELLS.
3. Draw and color what you observe in the circles below.
4. Label what you observe on the line below the circle.



Questions:

1. Write some words that describe an air bubble.

2. How do you know when you come to the edge of a cover slip?

3. How can you tell the difference between trash on the slide and what you should be looking at?

Explore



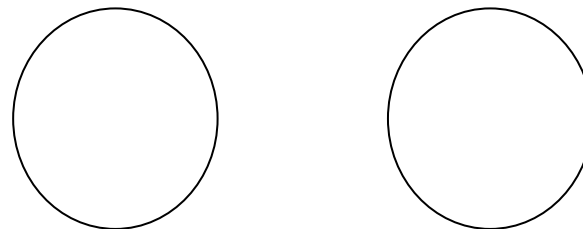
What To Do:

If microscopes are available teach students how to use them. If microscopes are not available have students view Power point of Typical Cell Examples (#2b on the website).

Materials: microscope for each side of the table, extension cords, lens paper, slide of cork cells, cheek cells, colored pencils

What To Do:

1. Set up your microscope as directed.
2. Place a slide on the stage and focus on low power.
3. Draw and color what you observe in the circles.
4. Label each image on the line and write the total magnification below it.
5. Put the microscope away following procedures.





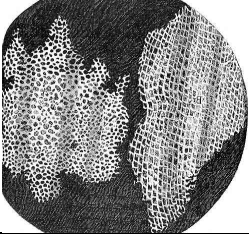
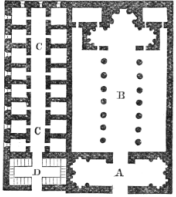

Questions:

1. What shape did you observe in the cork cells? _____
2. What shape did you observe in the cheek cells? _____
3. Why were the cells different colors? _____



Explain

Materials: Cell Theory power point (#2c on the website)

| | |
|---|---|
|  | <p>1. When was the microscope invented?</p> <p>_____</p> <p>2. Whose microscope is this?</p> <p>_____</p> |
| <p>3. Whose microscope is this?</p> <p>_____</p> <p>4. How did he light the specimen? _____</p> |  |
|  | <p>5. What is this? _____</p> <p>6. What are the small boxes called? _____</p> |
| <p>7. What are the small rooms called? _____</p> <p>8. Who lives in them?</p> <p>_____</p> |  |
|  | <p>9. What is pictured here?</p> <p>_____</p> <p>10. What does it represent?</p> <p>_____</p> <p>11. What does the cell theory say?</p> <p>_____</p> <p>_____</p> |

Elaborate

What To Do:

1. Watch the following video
<https://www.youtube.com/watch?v=WNByRghR6sw>
2. Answer the questions as the video plays.
3. Answer the questions to think about.

Questions from video

1. Scientists believed in spontaneous generation for _____ years.
2. Helmont suggested that _____ came from dirty underwear.
3. The experiment showed dirty underwear and wheat in an open mouth jar and that combination created _____ mice.
4. The rotting meat experiment showed that if meat was placed in an open jar _____ formed weeks later.
5. Redi said that when flies landed on the rotting meat, they laid their _____, which grew into maggots.
6. The maggots then changed into _____.
7. When Redi prevented the flies from reaching the meat, maggots _____ formed.

Questions to think about

1. What do mice like to eat? _____
2. How do you think the mice got in the jar with the dirty underwear and wheat? _____
3. What attracted the mice to the jar? _____
4. If you were conducting the same experiment with the jar, dirty underwear, and wheat, what would you change? _____
5. What do you think you would find in the jar after a month?





Ideas About Cell Theory

A P N R M I H I X R C C X Q O
H Q G D Y F T O O G C H S T X
C E L L T H E O R Y G E A Z X
G W C P F B P A K H O E H C A
G I S S U Z U K B O N K T L V
I K K U Y L U C Y E O C G A Z
L W E R M L B N M A I E I L T
A P S J J Y F E P O T L S T T
R V I J Q J W K Z C A L O E D
I R S D U F N D L T R S I V Y
H I C R J S E Q V V E F V G R
G K Q D W N H F D W N X X G Z
C X K F I W H S Q E E E J U H
E R H A B S G C P X G E C I M
K Y T L I R G O C P S T M U F
O S I Y Y S C O W I U F S J H
O W C C Q S R F R T O D L Z O
H Y P J O K S S M D E Q F F X
V E I R C S F Q S Y N G M N C
V S C E V C W L H M A I Y I S
X I L T D Y E B I P T D M W N
M L Q Q N T P L N X N N I X F
S S K Z X X H T L Y O T E I L
B P Q R T V W K G S P L O U Q
A B L X V H G H Q U S B B E K

Cells
Cell Theory
Mice
Stained

Flys
Microscope
Cheek Cells
Spontaneous Generation

Hooke
Cork Cells

Evaluate

Name _____ period _____

EXIT TICKET

Learning About Cell Theory

- Which of the following is the major idea of spontaneous generation?
 - all living things are made up of cells
 - some living things come from non-living things
 - no living things have cells
- Which of the following is the major idea of the Cell Theory?
 - all living things are made up of cells
 - some living things come from non-living things
 - no living things have cells
- What did Hooke see under his microscope?
 - cheek cells
 - cork cells
 - paramecia cells
- How did Redi prove that maggots didn't spontaneously appear on rotting meat?
 - He kept the container open.
 - He covered half the container.
 - He covered the container and prevented flies from landing on the meat.

