

Name: _____

Date _____ Hour _____

The Organelle Trail



Yeeeeeeea Haaaaaw! Grab yer hat and saddle the broncs! It's time to head down the Organelle Trail on a little Wild West adventure! You've just been made a U.S. Marshall! And, you got some wrangling to do!

Now that you are a U.S. Marshall, your job is to gather all of the information you can about a WANTED organelle. At the end of this "cyber" trail, you will need to whip up a WANTED poster to show to the other US Marshalls in your camp. Think America's Most Wanted – Wild West Style! Everyone will then be on the look out for your WANTED organelle too!



Part 1: First Duties

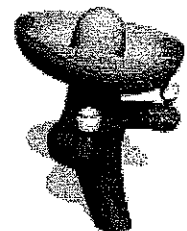
1. Get your assigned partner (Most of you will be working with a partner because it is much safer for law enforcement to work in pairs! However, some will work on the easier cases alone.)
2. Get your assigned organelle/structure (This will be provided in your briefing - during class!)

Organelle: _____

Part 2: Gather Your Facts

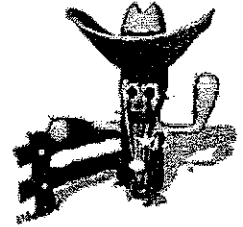
To complete your poster (and find your suspect!), you will need to gather facts on the trail! As you gather your facts, record the information on your FACT SHEET. You will need to know the following:

1. **CRIME:** What has this organelle done?
 - ✓ Why is this organelle "wanted"? In other words, what does it do for the cell? Or, what is the organelle's function?
2. **PHYSICAL DESCRIPTION:** What does the organelle look like?
 - ✓ Provide a description and an actual picture. The picture can be a mug shot (printed picture) or a sketch from a sketch artist (hand drawn).
3. **LOCATION:** Where should we look for the organelle?
 - ✓ Which of the following types of cells is this organelle found in? Make sure that you have explored bacteria, plants and animals.
 - ✓ Where is the organelle located in the cell? (By other specific organelles? By the cell membrane? Floating in the Cytoplasm?)



Part 3: Trail Sites

You will need to follow the "cyber" trails to find information about your wanted organelle. You do not need to visit each website. However, each website will offer information to help you gather your facts.

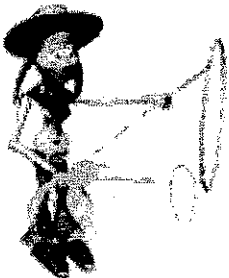
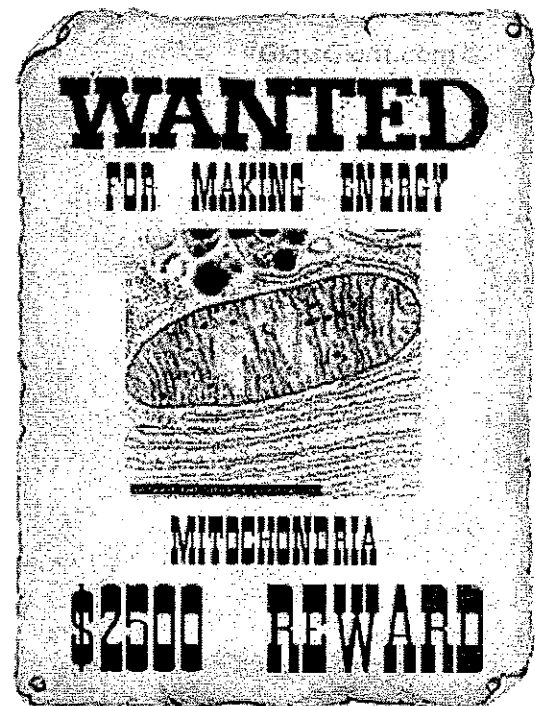


- ❖ <http://www.ibiblio.org/virtualcell/tour/cell/cell.htm>
- ❖ <http://biology.clc.uc.edu/courses/bio104/cells.htm>
- ❖ <http://www.tvdsb.on.ca/westmin/science/snc1w0/cells.htm>
- ❖ http://www.seaburyhall.org/library/sci_dir/bio_dir/apbio/cell.html
- ❖ <http://www.cellsalive.com/cells/plntcell.htm>
- ❖ <http://waynesword.palomar.edu/lmexer1a.htm>
- ❖ <http://www.usoe.k12.ut.us/curr/science/sciber00/7th/cells/sciber/celldiag.htm>

Part 4: The Roundup

Share the information you have discovered by completing a "WANTED" poster for your organelle. You may use the "WANTED" posters provided or make your own! The poster should include:

1. A large "WANTED" displayed
2. A mug shot (printed picture) or a sketch from a sketch artist (hand drawn) of your organelle/structure
3. Descriptive answers (in your own words!) to all 3 questions in Part 2 – Function, Description of appearance, Location in Types of Cells and Location in Cell.
4. An educated guess to the following question: What is the relationship between structure (the way the organelle looks) and function (the job the organelle does)? Or, does the way the organelle look help it do its job?



PHYSICAL DESCRIPTION

Organelle's Appearance

Describe the appearance of the organelle. Then, circle the website on the previous page that you could use to copy, print, or sketch from to complete the organelle appearance.

CRIME

Organelle's Function

The function (job) this organelle does for the cell is:

LOCATION

Organelle's Location

My organelle, _____, is always close to this organelle, _____.

OR

My organelle, _____, is usually found _____.

OR

My organelle, _____, has no specific location, but is located within the cell's _____.

Type of Cell that the Organelle is Found In

(Think about the different types of cells.)

Animal:

OR

Plant:

OR

Bacteria:

OR

Archaea:

I think the relationship between structure (the way the organelle looks) and function (the job the organelle does) is... (Hint: Does the way the organelle look help it do its job?)

