

# Week #5: May 4-May 8, 2020

## Junior High Science

### Debra Welch

Hello students! I hope all of you are staying healthy. I just want everyone to know that I am thinking of you and miss having school as normal. Remember to keep your immune systems strong! Basic directions are: You need to complete one lesson a week for only the class you were currently enrolled in and choose from the 3 choices. Choices 1 & 2 are for review of material we have already covered this year. I will start at the beginning and go through the year's material. Choice #3 will always be new work using your textbook or other handouts I include. I will make every effort to keep your work simple to do, considering that we are not learning together in the classroom. Your work should be turned in as a hard (paper) copy to the office or through email in a word or google document. My email is: [debra.welch@oakland5.org](mailto:debra.welch@oakland5.org). Please be sure all work has your name! If you have not turned in the assignment by the following Monday, I will need to email your parents and/or place a phone call home. Please be diligent to turn work in on time. I suggest you set up a schedule just as if you were at school and allow for the normal time period. Most assignments I send you will take less time than our normal 40 minutes. Comments will be made on paper copies and returned to you. If you send in homework answers as an email I will reply to your email and give my comments/reflections of your work. I will be supplying you with the necessary notes or you will need to use your book to find the answers. If you have any questions feel free to email me and I will get back to you by email during my office hours. If you can't email feel free to call the office and leave me a message. Good Luck and stay healthy!

See Assignments on following page:

Class	Choice 1	Choice 2	Choice 3 (Enrichment)
8th Grade Life Science	Using Textbook, Chap 2 on Cells- do:  Page 60, 1-18	<b>Mix &amp; Match-Cells: Structures &amp; Functions</b>  Do the worksheet, <b><u>BOTH</u></b> pages!! Questions 1-26 using the wordlist.	<b>READ attached notes &amp; do:</b> Directed Reading p18 (Protists) & p19 (Fungi)
6th Grade General Science	Use your Text, Chapter 2 (Minerals) and do questions:  p52, 1-17 p53, 18-24	<b>Types of Gemstones wordsearch</b>	Refer to the powerpoint notes provided last week on " <b>Weather</b> " and textbook. <u>Read notes</u> provided on "Clouds"  Do: Reinforcement p61  <b>READ and keep</b> the new notes provided

Mix and Match - Cells - Structures & Functions

8th Grade

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: 5/4-8

Fill in the blank with the letter next to the word that best completes the sentence.

- |   |                          |
|---|--------------------------|
| 1. _____ cells have a nucleus and organelles, and make up all plant and animal cells.   | a. nuclear pore          |
| 2. _____ cells lack a nucleus and organelles, and are only found in bacteria.   | b. cell membrane         |
| 3. The _____ channels substances through the cell, as well as producing carbohydrates and fats.   | c. organelle             |
| 4. The _____ have enzymes to digest wastes and worn out cell parts.   | d. centrioles            |
| 5. The _____ are where proteins are produced.   | e. Hooke                 |
| 6. The _____ in plant and animal cells, is a selectively permeable layer that controls the movement of substances in and out of the cell. | f. cell theory           |
| 7. The _____ is responsible for the making of the ribosomes.  | g. Golgi bodies          |
| 8. The _____ are storage areas for water, food, and other substances in the cell. They are most apparent in plant cells.                  | h. Schleiden             |
| 9. The term _____, is applied to all the membrane bound structures within the cell.   | i. chlorophyll           |
| 10. _____ named the cell after looking at cork, and the structures reminded him of the cells in the monastery.                            | j. cytoskeleton          |
| 11. The _____ is the "powerhouse," as it burns food for energy to power the cells activities.   | k. prokaryotic           |
| 12. The _____ consists of a gel-like fluid and the organelles within it.  | l. nuclear envelope      |
| 13. The _____ store and package chemicals or substances.  | m. lysosomes             |
| 14. The _____ are involved in cell division in animal cells.  | n. cell wall             |
| 15. The _____ consists of microtubules and microfilaments that add structure to the cell.   | o. Virchow               |
| 16. The _____ in plants provides for rigid support to the cell.   | p. chromosomes           |
| 17. _____ said that plants were made up of cells.   | q. endoplasmic reticulum |
| 18. The _____ are the structures that capture light energy from the sun for photosynthesis.   | r. ribosomes             |
| 19. The _____ surrounds the nucleus.  | s. cytoplasm             |

20. The \_\_\_\_\_ are in the nucleus, and are made up of DNA and control all hereditary functions.
21. The \_\_\_\_\_ in a minute opening in the membrane around the nucleus, to allow for movement of materials in and out of the nucleus.
22. \_\_\_\_\_ said that animals were made up of cells.
23. The \_\_\_\_\_ has control of all cellular functions.
24. \_\_\_\_\_ said that all cells come from pre-existing cells.
25. The \_\_\_\_\_ is the green pigment in plants.
26. The \_\_\_\_\_ states that cells are the smallest units that carry on life's functions, all plants and animals are made up of cells, and that all cells come from pre-existing cells.

- t. Eukaryotic
- u. Schwann
- v. chloroplasts
- w. vacuoles
- x. mitochondria
- y. nucleus
- z. nucleolus

Welch  
8th  
Choice 2, p2  
5/4-8



**Directed Reading for Section 2 ■ Fungi**  
**Content Mastery**

5/4-8

**Directions:** Match the terms in Column I with the phrases in Column II. Write the letter of the correct phrase in the blank at the left.

**Column I**

- \_\_\_\_\_ 1. yeasts
- \_\_\_\_\_ 2. spores
- \_\_\_\_\_ 3. sporangium
- \_\_\_\_\_ 4. lichens
- \_\_\_\_\_ 5. mushrooms
- \_\_\_\_\_ 6. mycorrhizae
- \_\_\_\_\_ 7. penicillin
- \_\_\_\_\_ 8. saprophytes
- \_\_\_\_\_ 9. fuzzy black molds

**Column II**

- a. zygote fungi
- b. club fungi
- c. sac fungi
- d. antibiotic produced by an imperfect fungus
- e. round spore case characteristic of zygosporangium
- f. reproductive cells in fungi
- g. network of hyphae and plant roots
- h. fungi that feed off dead or decaying organisms
- i. fungi important in weathering rocks to form soil

**Directions:** Use the following terms to label the parts of mold below. Then answer the questions on the lines provided.

**hyphae****spores****sporangia**

10. What type of organism is this?

\_\_\_\_\_

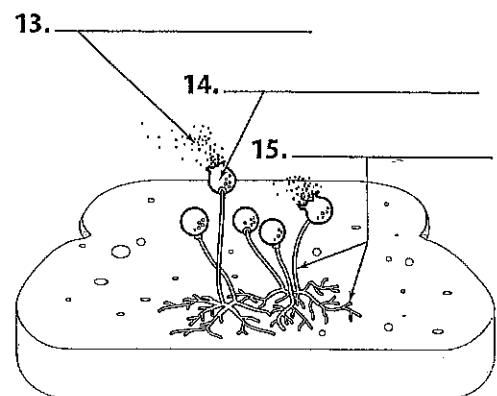
11. What does this organism use for food?

\_\_\_\_\_

12. How does this organism reproduce?

\_\_\_\_\_

\_\_\_\_\_



Kingdom:  
Protista

page 1

**Protists** – one or many celled organisms that live in moist or wet environments.

- all eukaryotes, plant-like, animal-like
- reproduction – cell division, regeneration, or sexual

**Classifying Protists:**

1. **Plant-like** –
  - chlorophyll for photosynthesis,
  - cell walls,
  - no specialized way to move from place to place.
2. **Animal-like** –
  - capture food
  - no cell wall
  - specialized movement
3. **Fungus-like** –
  - absorb food
  - cell walls in some species
  - specialized movement

**Plant-like Protists: Algae**

1. **Diatoms** – water, golden-brown pigment, secrete cell walls of silica (glass) around themselves (box), sink and collect after death.
2. **Dinoflagellates** – “spinning flagellates” – two flagella (one tail, one a circular belt), “fire algae” – chemical causes a glow at night, saltwater species.
3. **Euglenoids** – one celled algae (plant and animal-like), many have chloroplasts – *Euglena* – feed on bacteria when no light is present, no cell wall, flagella, photosensitive “eye spot.”
4. **Red algae** – many celled, red pigment, sea weed, 200meters deep in ocean – absorbing limited light.
5. **Green Algae** – 7,000 species – numerous, high levels of chlorophyll

6. **Brown Algae** – brown pigment, cool saltwater environments, vary in size, Kelp – largest seaweed – extracts add smoothness to cheese spreads and mayonnaise. Kelp – home and food source for small fish and invertebrates.

#### **Algae's Importance:**

1. “grass of the ocean” – food source
2. produce oxygen
3. algal bloom – red tides – dinoflagellate bloom
4. Carrageenan – red algae – cosmetics, food
5. Algin – thickening – ice cream, marshmallows, tires, lotion
6. Diatoms – insulation, filters, paint, road lines, toothpaste

#### **Animal-like Protists: Protozoans**

- one-celled, classified by movement, water or soil environments, in or on organisms, specialized vacuoles for digested food, rid wastes.

#### **1. Ciliates – cilia – little hairs that beat in a wave-like manner.**

*Paramecium* (typical ciliate species)

*Paramecium* – 2 nuclei

Micronucleus – reproduction

Macronucleus – feeding, gas exchange, water level balance

Oral groove – feeding

Anal pore – waste elimination

Contractile vacuole – rid excess water

#### **2. Flagellates – long flagella**

- primarily fresh water

-*Proterospongia*- colonies, similar to sponges

- *Trypanosoma* – tse tse fly – African sleeping sickness

#### **3. Pseudopods – “false foot”**

- fresh and salt water

- extend cytoplasm for movement – pseudopod

- *Amoeba* – surround and engulf food

- dysentery, brain infections



#### 4. Other Protozoans-

*Plasmodium* – parasite – malaria

#### Importance of Protozoans:

1. Food source
2. Shells, in sediments
3. Aid termite digestion of wood
4. Disease
  - vector transmission
  - *Giardia* – diarrhea – waste infected water

#### Fungus-like Protists:

- produce spores, pseudopods, consumers
1. Slime Molds
    - form delicate web-like structures on food supply – brightly colored
    - may move with pseudopods
    - moist, cool and shady areas – decayed plants
    - stalks and spores – poor environmental conditions
  2. Water Molds and Downy Mildews
    - water, moist environments
    - mass of threads over plant or animal
    - spores with flagella
    - parasites
    - decomposers

#### Importance of Fungus-like Protists:

1. Decomposers
2. Disease
  - water molds – lesions on fish
  - downy mildew
    - o Irish potato famine 1840's
    - o Grapes in France 1870's
    - o Lettuce, corn, cabbage, avocados, pineapples