
Protists, Fungi & Plant
Warm-Ups
10 Weeks

WARM UP - 1

MONDAY

What is the difference between living and non-living things/objects?

Living:_____

_____

Nonliving:_____

_____

TUESDAY

The Four Characteristics of Living Organisms are:

1. O_____ and use R_____ for E_____
2. R_____ to S_____
3. R_____
4. G_____ and D_____

WEDNESDAY

Living Organisms share these characteristics: O_____ R_____ (food, oxygen and water), which provide r_____ energy to perform the b_____ processes of _____, such as g_____ and d_____ or r_____ injured parts.

A_____-make their own _____ through a process called P_____.

H_____-must find their own food (hunter, gatherer, predator, prey, animals, fungi).

E_____ is r_____ from food in most organisms through this process.

THURSDAY

Which statement is true about what a stimulus is?

a. A change in an organism's respiration that causes it to gain energy.
b. A change in an organism's surroundings that causes it to do nothing.
c. A change in an organism's life cycle.
d. A change in an organism's surroundings that causes it to react.

Which statement is true about what a response is? (circle all that apply)

a. A change in an organism's respiration that causes it to gain energy.
b. An action performed by the organism.
c. A change in an organism's life cycle.
d. A behavior performed by the organism.

Reproduction Word Box:

2-----mixed-----identical-----1

Asexual=

____ parent(s) _____ offspring

Sexual= egg + sperm

____ parent(s) _____ offspring

WARM UP - 2

MONDAY

What is the difference between growth and development?

Growth:_____

_____

Development:_____

_____

TUESDAY

What do all organisms require to grow and develop?

E_____

All organisms are made up of C_____.

All organisms need F_____ and W_____.

All organisms need a way to dispose of W_____.

All organisms need an E_____ in which they can live.

WEDNESDAY

___ Taxonomy

___ Taxonomist

___ Levels of Classification

___ 5 Kingdoms

___ Animal Phyla

___ Plant Phyla

___ Scientific Name

___ Genus

___ Species

A. Kingdom, phylum, class, order, family, genus, species

B. The study of classifying organisms.

C. 35 (vertebrates and invertebrates).

D. Genus/species

E. Scientist who groups organisms.

F. 2 (vascular and nonvascular).

G. Plant, Animal, Fungi, Protist, Moneran

H. First name of an organism, written in Latin and always capitalized.

I. Last name of an organism, written in Latin and never capitalized.

THURSDAY

An organism is placed in a _____ group and then placed into a more specific group bases on its _____?

a. broad, structures

b. broad, life cycle

c. structures, broad

d. broad, cell membrane

The more classification levels an organism shares with another, the more _____ they have in common.

An organism is placed in a kingdom based on their:

A_____ to make F_____.

N_____ of C_____ in their body.

Species consists of organisms of the:

S_____ T_____

Able to B_____ and P_____ young of the same kind.

WARM UP - 3

MONDAY

What is the proper way to write an organism's genus/species? Write an example:

_____

_____

Example: _____

TUESDAY

What is the difference between:
Uni-cellular/multi-cellular?

_____

_____

Eukaryotic/Prokaryotic?

_____

_____

WEDNESDAY

***Directions*: Circle the right answer.**

Most Protists are (uni-cellular/multi-cellular).

Eukaryotic means it has (a nuclei/no nuclei).

Prokaryotic means it (lacks a nuclei/has a nuclei).

Protists can either be plant like or animal like: Animal like are (autotrophs/heterotrophs) who need to eat other organisms.

Plant-like are (autotrophs/heterotrophs) and use sunlight to produce food.

THURSDAY

What is the #1 thing about Fungi that separates them from plants?

a. **Fungi are autotrophs and produce their own food.**
b. **Fungi are heterotrophs and must absorb other plants or organisms (living or dead) to stay alive.**

Complete the names of the 3 Main Types of Fungi and match how they get their nutrients.

S_____
P_____
S_____

A. **Get energy from decaying organic matter.**
B. **Feed on other living organisms (host), but do not harm the host.**
C. **Feed on other living organisms (host) and harm the host.**

WARM UP - 4

MONDAY

Draw and label a Protists 2-D Model: Euglena

Circle its distinguishing characteristic: flagellum/cilia/false foot (psuedopod)

TUESDAY

Draw and label a Protists 2-D Model: Paramecium

Circle its distinguishing characteristic: flagellum/cilia/false foot (psuedopod)

THURSDAY

Draw and label a Protists 2-D Model: Amoeba

Circle its distinguishing characteristic: flagellum/cilia/false foot (psuedopod)

WEDNESDAY

___ cell membrane

___ cell wall

___ cytoplasm

___ endoplasmic reticulum

___ mitochondrion

___ nucleus

___ ribosomes

___ central vacuole

___ lysosome

___ food vacuole

___ contractile vacuole

___ choloroplast

A. Digests cellular waste and merges with a food vacuole to digest food.
B. Stores water and other substances, provides structure and support for the plant cell.
C. Contains the cell's genetic material (DNA), which determines the nature of cell structures and substances.
D. An organelle containing chlorophyll, found in plant cells and some protists that converts the Sun's energy into food (sugars).
E. An organelle found mostly in protists that collects extra water in a cell and expels it.
F. Makes proteins. (Found either free or bound to the surface of the endoplasmic reticulum.)
G. A membranous structure that assembles proteins and parts of the cell membrane.
H. A semi-rigid structure that surrounds cells of plants, fungi and bacteria and provides shape.
I. Converts the energy in food into usable energy for the cell.
J. The boundary between a cell and its environment that controls what enters and exits the cell.
K. Stores food and merges with a lysosome to digest food.
L. Internal fluid that contains the cells structures.

WARM UP - 5

MONDAY

Protists are usually:

1. **S_____-celled O_____**
2. **L_____ in M_____ environments.**
3. **V_____ in the ways they M_____ and obtain E_____.**

TUESDAY

Fungi can be categorized based on what characteristics? (Circle all that apply).

a. **Their fruiting structure of seed dispersal.**
b. **Their fruiting structure of apples.**
c. **Their fruiting structure of reproduction.**
d. **Their fruiting structure of spore dispersal.**

WEDNESDAY

Protists have three main ways to move (locomotion). What are they?

1. _____
2. _____
3. _____

Who are these? *(chose from: Paramecium, Amoeba or Euglena)*

Animal-like Protists=_____
Plant-like Protists=_____
Fungus-like Protists=_____
Autotrophic & Heterotrophic Protists=_____

In most cases, fungi are not able to do what?

a. **Move or have locomotion.**
b. **To be stationary.**

THURSDAY

Fungi, like plants respond to stimuli from their environment to ensure survival of the organism. Which of the following are stimuli that fungi respond to? (circle all that apply)

a. **gravitropism or response to gravity (specifically negative gravitropism)**
b. **hydrotropism or response to water**
c. **phototropism or response to light**
d. **thigmotropism or response to touch**
e. **toward reproductive units of other fungi**

Fungi don't have a root system to obtain water/nutrients, they have long fibrous strands called:

H_____

The plural of this is a:

M_____

WARM UP - 6

MONDAY

X_____transports W_____and N_____ **UP** through the plant.

P_____transports S_____ (glucose) that is produced from P_____ **DOWN** from the L_____ to the rest of the plant.

TUESDAY

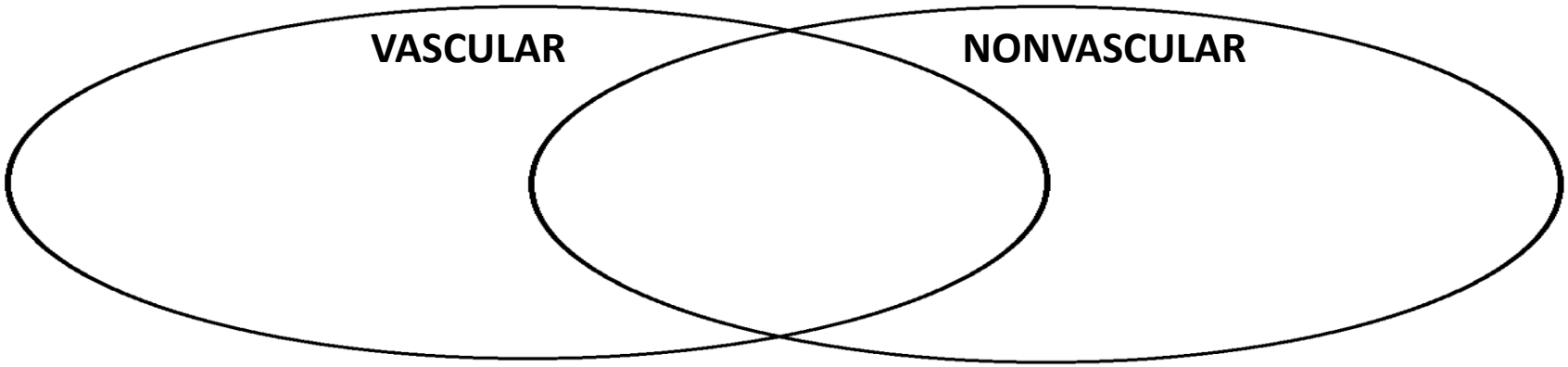
The main difference of nonvascular plants compared to vascular plants is that nonvascular plants _____.

a. **Transport and pass food and water from leaf to leaf.**
b. **Transport and pass food and water from root to root.**
c. **Transport and pass food and water from cell to cell.**
d. **Transport and pass food and water from flower to flower.**

WEDNESDAY

Draw and label a 2-D Model demonstrating xylem and phloem and their transport of water, nutrients and sugar in a plant structure.

THURSDAY



WARM UP - 7

MONDAY

P_____ is the process where plants make their own S_____ (glucose) and release O_____ gas (O_2) by using the following ingredients:

1. S_____
2. C_____ D_____ (CO_2)
3. W_____ (H_20)

TUESDAY

C_____ a G_____ pigment that absorbs energy from the S_____.

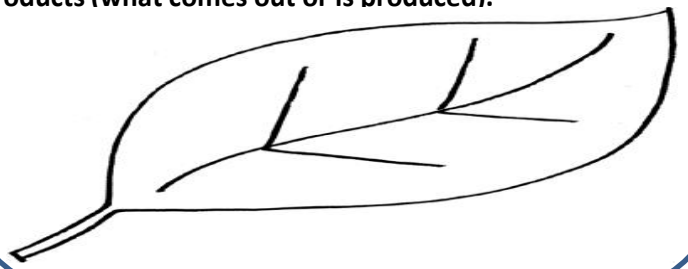
C_____ D_____ is taken in through openings or pores in the leaves called S_____ and this is where a plant also releases W_____ V_____ into the water cycle.

W_____ is absorbed through a plant's R_____.

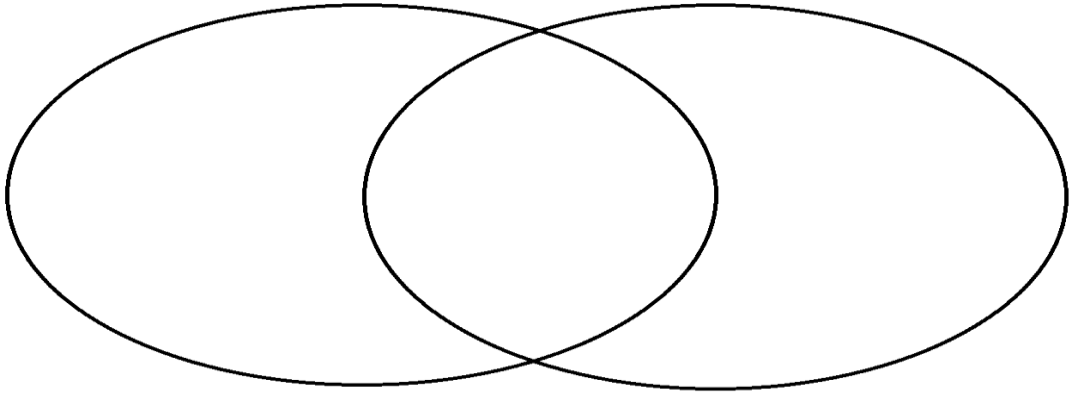
WEDNESDAY

Label a 2-D Model demonstrating a leaf and the process of <u>PHOTOSYNTHESIS</u> including the reactants (what goes in) and the products (what comes out or is produced).

Label a 2-D Model demonstrating a leaf and the process of <u>RESPIRATION</u> including the reactants (what goes in) and the products (what comes out or is produced).



THURSDAY



<u>Challenge Question</u>

Can you write the formula for Photosynthesis including the reactants and the products?

_____ + _____

+ _____ →

_____

+ _____

WARM UP - 8

MONDAY

Transpiration: Some of the W_____ taken in through the R_____ of plants is used in the process of P_____. Plants store water inside of their C_____. Plants L_____ water through their L_____. This process is called T_____. Without a way to control transpiration, plants would wither up and D___.

TUESDAY

Select all of the following statements that characterize respiration.

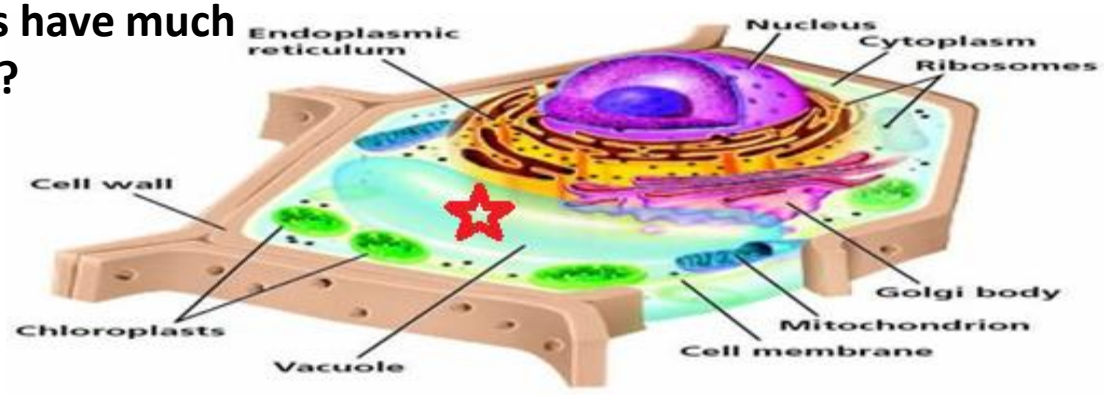
a. Glucose from photosynthesis is used to provide energy to the plant to perform life processes such as growth/repair.
b. Cells require glucose and oxygen gas to undergo respiration.
c. Oxygen and water are formed during respiration.
d. Plants and animals undergo respiration.

WEDNESDAY

Draw and label a 2-D Model demonstrating guard cells opening and closing the stomata on the underside of a leaf. Make sure to demonstrate their release of oxygen and water vapor and intake of carbon dioxide.

THURSDAY

Why do you think that plant cells have much larger vacuoles than animal cells?



WARM UP - 9

MONDAY

Structural Adaptations for Defense of a Plant:

1. T_____- defend the plant from being eaten by some animals.
2. F_____ and L_____ with poisons so that they are not eaten by animals.
3. A_____ to close their leaves when touched (T_____).

TUESDAY

Stems do two of the following (select both from the choices).

a. Function as the site of photosynthesis.
b. Support the plant.
c. Function as the site of transpiration.
d. Hold the plant up to the light.

WEDNESDAY

Leaves are the site for three very important functions for plants. Draw a 2-D Model of a leaf and indicate these functions.

Seeds have specialized structures that allow them to be dispersed by:

1. W_____ 2. W_____ 3. A_____

Seed Coats protect the seed from:

1. I_____ 2. D_____ O_____.

THURSDAY

There are two types of roots. What are they and explain their characteristics in a 2-D Model!

Root Type #1:	Root Type #2:
Examples:	Examples:

WARM UP - 10

MONDAY

Draw a 2-D Model of what happens to the ovary after the ovule is fertilized?

TUESDAY

Write how plants respond to changes in temperature:

Day Length -

Bulb Plants -

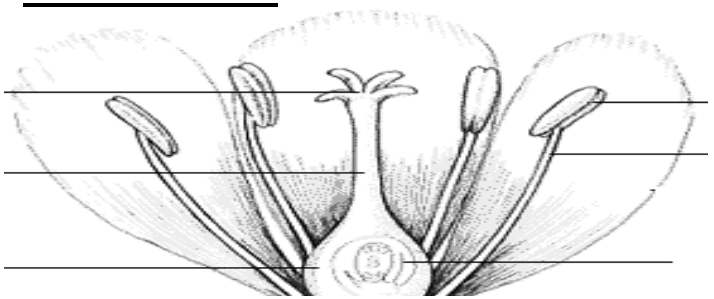
Day/Night -

Dormancy -

THURSDAY

Plant Tropism	Stimulus	Response
Phototropism		bends to light
Gravitropism		
Hydrotropism	water	
Thigmotropism		

WEDNESDAY



Chose P for Pistil or S for Stamen

____ Contains the style, which is a stalk down which the pollen tubes will grow after pollination has taken place.

____ Has an anther that produces pollen (contains the sperm cells).

____Female reproductive organ of the flower.

____Contains the stigma, which has a sticky top for pollen grains to land.

____ Male reproductive organ of a flower.

____ Has a filament (stalk) that supports or holds up the anther.

____Contains the ovary, which contains the ovules where the egg cells are produced.