

Kingdom Name: Fungi Ch20

	My Notes
Movement & Support	
Digestion/ Obtaining Nutrients	
Nervous/ Response	
Circulation	
Gas Exchange	
Excretion	
Reproduction	

Life Cycle of *Plasmodium*

Use with Chapter 19, Section 19.1

1. Define these terms:

- a. sporozoans _____
- b. spore _____
- c. sporozoite _____

2. After a mosquito bites an infected person, what happens in the mosquito?

3. How do the sporozoites get from the mosquito to a human host?

4. Where do the sporozoites go once they enter a human host?

5. Explain what happens to the spores produced in the liver after they enter the bloodstream.

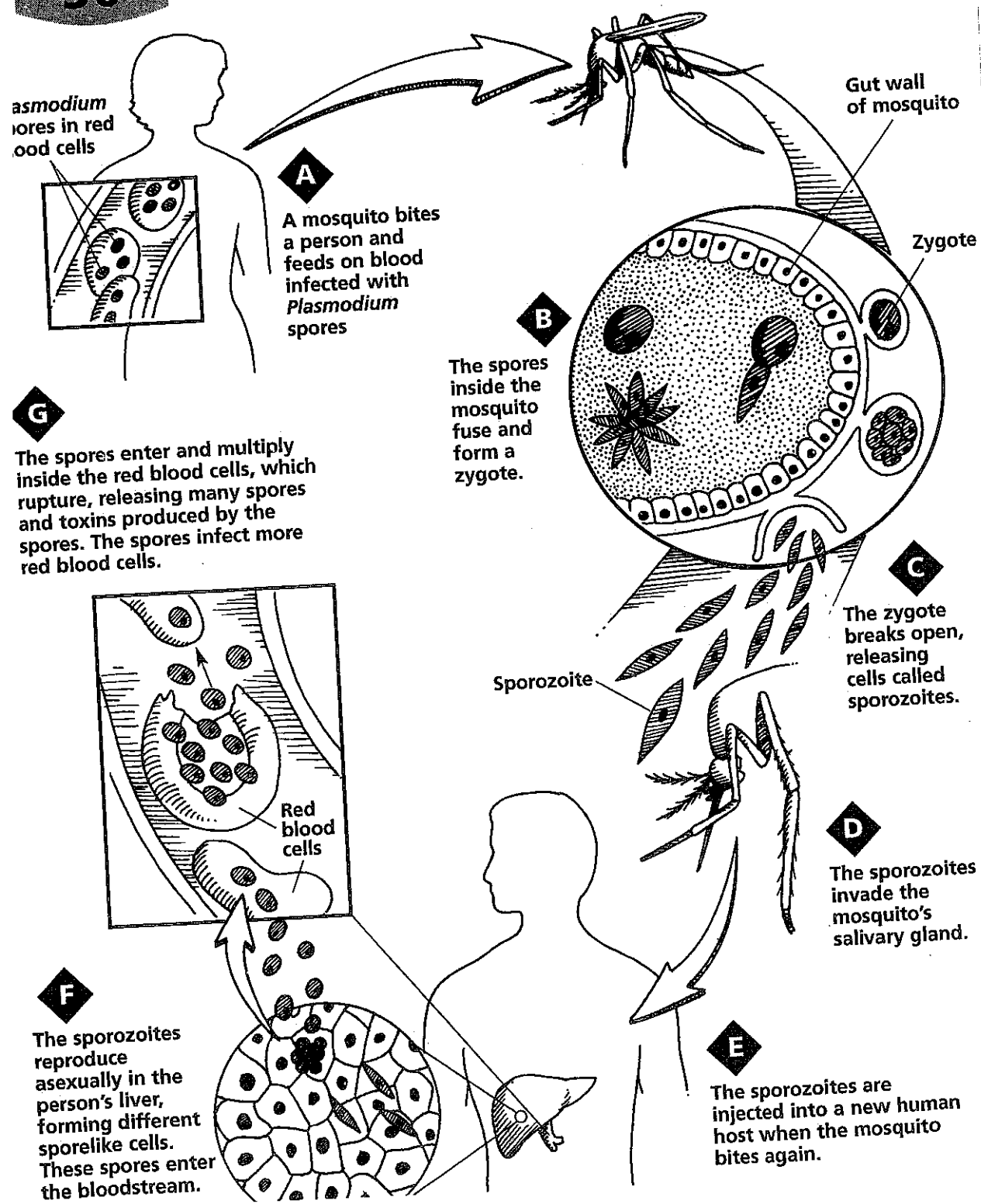
6. What do the spores do after they burst from red blood cells?

7. Explain what causes the symptoms of malaria in an infected person.

8. How does the disease continue to be spread from a person who has malaria?

Life Cycle of *Plasmodium*

Use with Chapter 19, Section 19.1



Kingdom Name: Plantae Ch 21-24

	My Notes
Movement & Support	
Digestion/ Obtaining Nutrients	
Nervous/ Response	
Circulation	
Gas Exchange	
Excretion	
Reproduction	

Plant Vocabulary

Nonvascular plant

Seed

Embryo

Phloem

Stomata

Vascular plant

Pollen grain

Guard cell

Xylem

Tropism

Protist and Fungus Vocabulary

Asexual reproduction

Fragmentation

Alga(e)

Chitin

Autotroph

Spore

Protozoan

Budding

Lichen

Heterotroph

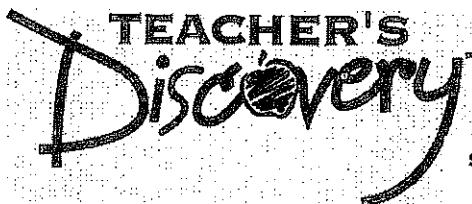
Simple Organisms in Action
Fungi

1. Fungi are _____.
a. simple organisms b. not alive c. complex organisms
2. _____ is the green pigment that allows plants to make their own food.
a. Chlorine b. Chlorophyll c. Chloroseptic
3. The cell wall in a fungus is called _____.
a. chlorophyll b. chitin c. membrane
4. Organisms that get their food from other living things are called _____.
a. fungi b. heterofungi c. heterotrophs
5. How do fungi get their food?
a. they eat it b. they drink it c. they absorb it
6. To what kingdom do fungi belong?
a. fungi b. hyphae c. planta
7. Long tubular cells in a fungus are called _____.
a. hypo b. hyphae c. hyper
8. How many species of fungi are there?
a. 1 million b. 100 thousand c. 100 million
9. Scientists that study fungi are called _____.
a. hyphaeologists b. fungicologists c. mycologists
10. A fungus' reproductive cells are known as _____.
a. hyphae b. spores c. sprouts



Simple Organisms in Action Protists

1. Nearly all protists live in _____.
a. dry places b. wet places c. cool places
2. To what kingdom do protists belong?
a. protest b. protista c. planta
3. What was the earliest life form on Earth?
a. bacteria b. protists c. nuclei
4. _____ is the process of trapping sunlight to make food.
a. Protista b. Photography c. Photosynthesis
5. A partnership between two species is called _____.
a. symbolic b. symbiosis c. synthesis
6. Organisms that make their own food are called _____.
a. autotrophs b. heterotrophs c. chlorophylls
7. Photosynthetic protists produce more _____ than all the plants on Earth.
a. seeds b. pollen c. oxygen
8. Protists can be any of _____ colors.
a. 3 b. 13 c. 6
9. A multi-celled brown algae is called _____.
a. spirogyra b. cape c. kelp
10. What color algae do scientists use for food?
a. green b. brown c. red



Non Seed Plant Divisions

Division name and examples	Important characteristics or unique features

Seed Plant Divisions

Division name and examples	Important characteristics or unique features

1. What area of the plant is capable of growth?
a. root cap b. root layer c. root tip
2. The protective layer of tissue at the root tip is called the _____.
a. root cap b. root ball c. root layer
3. Thin root cells that function by absorbing water are _____.
a. filaments b. fingers c. root hairs
4. What is the protective outer layer of a leaf cell?
a. pigment b. epidermis c. root tip
5. _____ is evaporation of water from a plant through the stomata.
a. Transpiration b. Transportation c. Respiration
6. What process uses sunlight to make food?
a. photography b. photosynthesis c. transpiration
7. What is the waxy protective covering on the epidermis of a leaf?
a. cuticle b. root cap c. root wax
8. What are the small openings on the bottom of a leaf?
a. epiderms b. spores c. stomata
9. The green pigment that absorbs sunlight is called _____.
a. photosynthesis b. chlorophyll c. photophyll
10. Movement of a plant as a result of light is _____.
a. photosynthesis b. photolatitude c. phototropism

1. What does bio- mean?
a. death b. two c. life
2. What does the word "diversity" mean?
a. different b. opposite c. same
3. The first plants developed _____.
a. on mountains b. in the ocean c. on land
4. _____ were the first plants.
a. Green bacteria b. Brown algae c. Green algae
5. Plants that have special tissues are called _____.
a. green algae b. vascular c. muscular
6. How long has the fern been in existence?
a. 390 million years b. 490 thousand years c. 200 years
7. What kind of plant is moss?
a. it is not a plant b. vascular c. non-vascular
8. Dry reproduction is possible because of _____.
a. water b. seeds c. animals
9. The _____ were the first seed producers.
a. gymnosperms b. vasculars c. conifers
10. Pollen producing plants rely on _____ for reproduction.
a. the wind b. water c. photosynthesis

1. When you _____ a plant, its energy is passed on to you.
a. eat b. touch c. smell
2. Photoconversion is the process in which plants capture and store the energy of the sun.
a. true b. false
3. _____ are the first link in the food chain.
a. Consumers b. Producers c. Carnivores
4. What is the second link in the food chain?
a. conifers b. producers c. consumers
5. A lion is a(n) _____ in the food chain.
a. observer b. producer c. consumer
6. What was the first plant to be grown for food?
a. wheat b. corn c. potatoes
7. In early America, most houses were built of bricks.
a. true b. false
8. Where did rice come from?
a. Asia b. Europe c. Africa
9. Sugar wheat came from _____.
a. Africa b. Asia c. Europe
10. What country did green and yellow beans come from?
a. China b. United States c. France

Plant Life In Action
Plant & Animal Interdependency

1. What do plants and animals rely on each other for?
a. their basic needs b. fertilization c. photosynthesis
2. Species involved in a dependent relationship are called _____.
a. a group b. interdependent c. a school
3. What do all living creatures have in common?
a. hair color b. the sun c. what they eat
4. The sun is the ultimate source of _____ on our planet.
a. snow b. heat c. energy
5. What do plants need to survive?
a. warm temperatures, oxygen and water b. cool temperatures, water and carbon dioxide
c. sunlight, carbon dioxide, oxygen and water
6. An animal requires _____ to breathe.
a. oxygen b. food c. water
7. Without reproduction a species becomes _____.
a. wild b. extinct c. hungry
8. _____ is the process by which a plant captures energy from the sun and turns it into food.
a. Photosynthesis b. Stomata c. Reproduction
9. A plant makes its own _____.
a. shelter b. water c. food
10. From where do herbivores get energy?
a. animals b. plants c. water

Medicinal Plant Brainteaser Challenge

Student Sheet

Student name: _____ Class/section: _____

Background Information and Directions

All around us, plants are growing, and all around us, a host of insects, rodents, molds, and other living things are trying to eat them. What's to prevent all these predators from eating every plant in sight? How can the plants still survive, stuck where they are and apparently defenseless?

One very effective way plants protect themselves is by producing poisons to repel and even kill the living things that want to devour them. Since a great variety of plant predators exists, plants have come up with an equally huge selection of poisons to drive them away. All these poisons affect living things in an enormous variety of ways. There are a lot of ways to be a poison!

Scientists are very interested in finding and learning about these plant poisons. There are so many that scientists are constantly discovering new compounds that they had never dreamed of. But why should they go to all this trouble? It turns out that poisons can actually serve as medicines. The enormous diversity of plant poisons that exists affects the human body in an equally diverse number of ways. But what might be harmful in one situation can be beneficial in another. Carefully applied in the right circumstances, in fact, plant poisons can help, not harm, us and even save lives. Whether a compound is a poison or a medicine, therefore, depends upon its dosage and how it is used.

The brainteaser challenge below illustrates this. The chart introduces 20 plants, the compounds they make, and what the compounds do to living things. Look the compound descriptions over and try to predict how we use them as medicines.

Following that are two sheets with 20 "medical cards". Your task is to cut out and glue the "medical cards" to the appropriate plant--to the best of your ability, using the information provided, AND your power of deduction.

A powerful
cancer
remedy

Used to relax
muscles
during
surgery

Used to treat
heart
problems

Used to treat
an eye
disease
called
glaucoma

Used as a
laxative to
relieve
constipation

Used in birth
control pills

Used to open
patients'
pupils during
eye exams

Considered
the most
effective pain
reliever of all

Used to treat
high blood
pressure

Used as a
local
anesthetic
and to treat
sore throats

A powerful
cancer
remedy

Used to treat
malaria, which is
caused by proto-
zoan parasites
infesting human
blood

A powerful
cancer
remedy

Used to treat
Alzheimer's
disease, a brain
disorder that
mainly affects
older people

Used to
remove
blood clots

Used to treat a
painful type of
arthritis (joint
disease)
known as gout

A promising
treatment for
bacterial and
fungal
infections

Used to treat
warts and
some cancers

Used to treat
asthma and emphy-
sema, diseases of
the respiratory
system that affect
how people breathe

Used to treat
malaria, which is
caused by proto-
zoan parasites
infesting human
blood