

Name _____ Date _____

Subject: Biology I

Unit 6: Viruses, Monorans, and Protists

Concept Strands

- The Nature of Matter
- Processes of Life
- How Living Things Interact with Their Environment

Standards:

- The student describes patterns of structure and function in living things.
- The student understands the competitive, interdependent, cyclic nature of living things in the environment.
- The student understands the basic principles of atomic theory.
- The student understands the process and importance of genetic diversity.
- The student understands the basic principles of atomic theory.

Benchmarks:

- SC.F.1.4.2 - Body structures are uniquely designed and adapted for their function.
- SC.F.1.4.5 Complex interactions among different kinds of molecules in the cell cause distinct cycles of activity governed by proteins.
- SC.F.1.4.8 Cell behavior can be affected by molecules from other parts of the organism or even from other organisms.
- SC.F.1.4.9 - Living organisms can be considered conceptually at seven structural levels: molecular, organelle, cellular, tissue, organ, organ system and complete organism related life forms into taxonomic groups.
- SC.F.1.4.10 - A system of classification is used to arrange related life forms into taxonomic groups.
- SC.F.2.4.1 - The mechanisms of asexual and sexual reproduction and know the different genetic advantages and disadvantages of asexual and sexual reproduction.
- SC.F.2.4.3 - The mechanisms of change (e.g., mutation, natural selection) that lead to adaptations in a species and their ability to survive naturally in changing conditions and to increase species diversity.
- SC.G.1.4.1 There is a great diversity and interdependence of living things.
- SC.G.1.4.1 - There is great diversity and interdependence of living things.
- SC.G.1.4.2 - The flow of energy through an ecosystem which is made up of producers, consumers, and decomposers carries out the processes of life and that some energy dissipates as heat and is not recycled.
- SC.A.2.4.8 Radiation is used to sterilize food, treat diseases and provide energy.

Content Focus:

- 1. Describe the characteristics of viruses, including the fact that they are not included in any common taxonomic group.
- 2. Describe viral reproduction.
- 3. Identify major viruses and the effect of these viruses on society.
- 4. Describe the use of vaccines to combat viral diseases.
- 5. Describe the characteristics of bacteria, including the rationale for grouping them in Kingdom Monera.
- 6. Identify the beneficial as well as harmful impact of bacteria.
- 7. Describe bacterial reproduction.
- 8. Identify common bacterial diseases, modes of transmission, and prevention.
- 9. Describe the characteristics of protists, including the rationale for grouping them in

Kingdom Protista.

- 10. Identify the beneficial as well as harmful impact of protists.
- 11. Describe protist reproduction.
- 12. Identify common protozoan diseases, modes of transmission, and prevention.

Language Focus: General Statements

- Ex. A virus is a thing that can damage or kill organisms.

ESOL Instructional Strategies

- | | |
|---|---|
| <input type="checkbox"/> Activate student prior knowledge | <input type="checkbox"/> Heritage Language Support |
| <input type="checkbox"/> Alternative Assessment | <input type="checkbox"/> Individualized instruction |
| <input type="checkbox"/> Community Language Learning Groups | <input type="checkbox"/> Modification of Text |
| <input type="checkbox"/> Cooperative Learning Groups | <input type="checkbox"/> Total Physical Response |
| <input type="checkbox"/> Graphic Organizers | <input type="checkbox"/> Use of visuals |

Content Activities:

Text:

Materials:

Activity Description:

Vocabulary - English

Unit 6: Viruses, Monorans, and Protists

host
insect
nonliving
parasite
vaccine
virus
antibiotics
bacteria
fission
immune system
moneran
nitrogen
recycle
algae
mitosis
plankton
protist
protozoan

Vocabulary - Haitian Creole

Unit 6: *Viris, Monoran, ak Pwotis*

host	kay
insect	ensèk
nonliving	san vi
parasite	parazit
virus	viris
antibiotics	antibiyotik
bacteria	bakteri
fission	fisyon
immune system	sistèm iminitè
moneran	moneran
nitrogen	nitwojèn
recycle	resikle
algae	alg (zèb anba dlo)
mitosis	mitoz
plankton	plankton
protist	pwotis
protozoan	pwotozoè

Vocabulary - Spanish

Unit 6: Viruses, Monorans, and Protists

Summary - English

Unit 6: Viruses, Monerans, and Protists

Viruses

Viruses are things that can damage or kill organisms. But viruses are not classified into any kingdom. Many biologists do not consider viruses to be living things.

Viruses are similar to parasites. They use the living cells and damage them. They need a host cell for reproduction.

There are many viral diseases which affect our lives. Viruses can be spread many ways. Some are carried by insects. Others can be found on food or in water. Many viruses can become airborne.

Many viral diseases can be prevented by using vaccines. We now have vaccines for many diseases. Scientists are working to develop other vaccines.

Monerans

The Kingdom Monera includes the oldest and most common organisms on this planet. bacteria.

Monerans carry out all the processes of living things. Some bacteria are producers, some are consumers, and many are decomposers.

Bacteria that are decomposers are some of the earth's best recyclers. When an animal dies, bacteria break the body down into useable parts, such as nitrogen, carbon dioxide and minerals.

Many bacteria are helpful. Bacteria reproduce by a process called binary fission. When the bacteria get bigger, they can reproduce again. Most food spoilage is due to bacteria. Bacteria are found everywhere. They can be in the air, in the water or on food.

Protists

The Kingdom Protista contains a wide variety of organisms. All protists have nuclei. Some protists are unicellular, some are multicellular. Some protists are animal-like and some plant-like. The Kingdom Protista is the classification for organisms that just don't fit in any other kingdom.

Plant-like protists are called algae. Animal-like protists are called protozoans. Examples of protozoans include amoebas and paramecium. Most protozoans live in the water, eating bacteria, plankton or other organic matter. However, many human diseases are caused by protozoans.

Summary – Haitian Creole

Unit 6: Viruses, Monerans, and Protists

Viris se bagay ki kab andomaje oswa touye ògànism. Men viris pa klase nan okenn wayòm. Anpil byolojis pa konsidere viris tankou èt vivan.

Viris sanble ak parazit. Yo sèvi selil yo epi yo andomaje yo. Yo bezwen jwenn rezidans nan yon selil pou yo kab repeple.

Gen plizyè maladi viral ki afekte lavi nou. Viris yo kab pwopaje divès fason. Gen nan yo se ensèk ki pwopaje yo. Gen lòt nou jwenn nan manje oswa nan dlo. Gen anpil viris ki kab pwopaje nan lè a tou.

Gen anpil maladi viral ki kab epaye gras ak vaksen. Kounye a gen vaksen pou plizyè maladi. Syantis yo toujou ap travay pou devlope lòt vaksen.

Monerans

Wayòm Monera a gen ladan li ògànism ki pi ansyen nou jwenn toupatou sou tè a ... bakteri yo.

Monerans yo gen ladan yo tout fonksyon yon èt vivan kab genyen. Gen kèk bakteri se pwodiktè yo ye, gen lòt se konsomatè yo ye, gen lòt menm se dekonpozitè yo ye.

Bakteri dekonpozitè yo pami kèk nan pi bon resiklè pou tè. Lè yon bèt mouri, bakteri dekonpozitè yo depatya kò a an miyèt moso ki itil tankou nitwojèn, diyoksid kabòn, ak mineral.

Gen anpil bakteri ki itil. Bakteri yo miltipliye gras ak yon metòd ki rele fisyon binè. Lè bakteri yo vin pi gwo, yo kab repeple ankò. Anpil manje ki gate, se bakteri ki lakòz. Ou jwenn bakteri tout kote w pase. Yo gen dwa nan lè a, nan dlo oswa nan manje wa p manje.

Pwotis

Wayòm Pwotis la gen yon kantite varyete ògànism. Tout pwotis yo gen nwayo. Gen kèk pwotis ki genyen yon sèl selil, gen lòt ki genyen plizyè selil. Gen pwotis animal, gen lòt ki vejetal. Wayòm pwotis se wayòm klasifikasyon pou ògànism ki pa kab klase nan lòt wayòm detèmine.

Pwotis vejetal yo rele alg. Pwotis animal yo rele pwotozoè. Egzanp pwotozoè yo se amebe ak paramesi. Pifò pwotozoè viv nan dlo; yo manje bakteri, plankton oswa lòt matyè ògànik. Antouka, gen plizyè maladi ki tonbe sou moun, se pwotozoè yo ki lakòz.

Summary - Spanish

Unit 6: Viruses, Monorans, and Protists

Listening Activities

1. **Minimal Pairs** (Beginning) See page 4 for instructions.

virus/viral
well/wall
insect/reject
pinch/punch

2. **Bingo** (Beginning) See page 4 for specific instructions. You may choose words from the unit summary or from students' classroom texts. Be sure to coordinate Bingo vocabulary with the material you will be reading to the students. This sample Bingo vocabulary is taken from the unit summary.

organisms, processes, decomposers, multicellular, bacteria, airborne, parasites, insects, viral diseases, algae, protozoans, plankton, reproduce, useable, amoebas, human, similar, paramecium, vaccines, kingdom, biologists, binary fission. Organic matter, prevented, damage

3. **Follow Directions** (Intermediate) See page 5 for additional instructions. Give the students a picture of an amoeba. They will follow these directions.

Label the cell membrane.
Label the nucleus.
Label the contractile vacuole.
Label the food vacuole.
Label the cytoplasm.
Label the pseudopod.

4. **Team Spelling Test** (Intermediate) See page 5 for specific instructions. Use the following words for the test. You say the singular and the students write the plural.

<i>virus</i>	<i>viruses</i>
<i>fungus</i>	<i>fungi</i>
<i>bacterium</i>	<i>bacteria</i>
<i>flagellum</i>	<i>flagella</i>
<i>symbiosis</i>	<i>symbioses</i>
<i>colony</i>	<i>colonies</i>
<i>phyla</i>	<i>phylum</i>
<i>cilium</i>	<i>cilia</i>
<i>paramecium</i>	<i>paramecia</i>
<i>category</i>	<i>categories</i>

5. **Dictation** (Dictation) See page 6 for specific instructions. Dictate the sentences.

- a) *Biologists do not consider viruses to be living things.*
- b) *Many common human diseases are caused by viruses.*
- c) *Many human viral diseases can be prevented by vaccines.*
- d) *Bacteria act as decomposers and recycles dead organisms into useable parts.*
- e) *Bacteria can be found in the air, in water, on food, and on your skin.*

6. **Interview** (Intermediate, Advanced) See page 6 for specific instructions. You are to play the role of a bacterium. Students should save these notes for Writing Activity 1, Language Experience Story.

What are you? (bacterium)

How can you be helpful to humans?(help to produce foods and medicines)

What else do you do? (break down pollutants)

What are some of the bad things that bacteria can do? (spoil food, poison water, cause disease)

What is an important job of bacteria? (acting as a decomposer and assisting in the breaking down and recycling of dead matter)

Are bacteria plentiful in the world? (estimated 2.5. billion bacteria per gram of soil)

How long has bacteria existed? (about 3.5 billion years)

Where are you found? (water, air, soil, animals)

Speaking Activities

1. **Intentional Intonation** (Beginning) See page 7 for specific instructions.

*The Kingdom **Monera** includes the oldest and most common organism on the earth.bacteria. (not Animalia)*

*The Kingdom Monera includes the **oldest** and most common organism on the earth.bacteria. (not youngest)*

*The Kingdom Monera includes the oldest and most **common** organism on the earth.bacteria. (not rare)*

*The Kingdom Monera includes the oldest and most common organism on the **earth**.bacteria. (not Mars)*

*The Kingdom Monera includes the oldest and most common organism on the earth.**bacteria**. (not insects)*

2. **Backwards Build-up** (Beginning) See page 7 for specific instructions. Note that it is not necessary to teach all of these sentences on one occasion.

1. *Viruses can damage or kill organisms.*

2. *Viruses are considered non-living because they do not need energy.*

3. *Animal viruses can kill our pets and livestock.*
4. *Bacteria that are decomposers are some of the earth's best recyclers.*
5. *Cooking foods and refrigerating foods helps destroy bacteria that may cause illness.*

3. **Charades** (Intermediate) See page 7 for specific instructions. Below are listed some Charade suggestions:

damage, injection, energy, break down, digestion, copy

4. **Mixed up Sentence** (Intermediate) See page 8 for specific instructions. Note that you should not try more than one of these sentences in a given day.

5. **Twenty Questions** (Advanced) See page 8 for specific instructions. Photo or picture suggestions follow.

algae, protozoan, livestock, crops, antibiotics, plants, oil spills

Reading Activities

1. **Pre Reading** (Beginning) See page 9 for specific instructions. Use the paragraph below for your pre reading text.

Viruses are things that can damage or kill organisms. Biologists do not consider viruses living things. There are many viral diseases that affect people, animals and plants. Vaccines are developed to prevent these diseases.

Monerans include bacteria. Some bacteria are producers, some are consumers and some are decomposers. Many bacteria are helpful in the preparation of foods and medicines. Some are harmful causing food to spoil.

Protists have a nuclei. Some are animal-like and some are plant-like algae are plant-like protists. Protozoan are animal-like. Protozoans cause diseases.

2. **Total Recall** (Intermediate, Advanced) See page 9 for specific instructions.

3. **Scan** (Intermediate, Advanced) See page 10 for specific instructions.

4. **True or False** (Intermediate, Advanced) See page 10 for specific instructions.

5. **Judgment** (Intermediate, Advanced) See page 11 for specific instructions.

6. **Story Grammars** (Advanced) See page 11 for specific instructions.

Writing Activities

1. **Language Experience Story** (Beginning, Intermediate, Advanced) See page 12 for specific instructions. You may use information from Listening Activity 6, the Interview, or information learned in other unit activities.
2. **Indirect Speech** (Beginning) See page 12 for specific instructions. Use the dialog written for Presenting Activity 1, Dialog.

Ex. Bacteriologist: Scientists are working to develop new antibiotics and vaccines.

The bacteriologist said that scientists were working to develop new antibiotics and vaccines.

3. **Framed Paragraphs** (Intermediate) See page 12 for specific instructions. Framed paragraphs provide students with the framework for a paragraph. They include a main idea with supporting details and a summary. After constructing the following paragraph with the class, assign pairs to research biology in everyday life using their texts, atlases and encyclopedia.

Ex. Viruses are things that can damage and kill organisms. Biologists do not consider viruses to be living things because..... They do not need Viral diseases affect..... They can be spread by They can be prevented by Scientists are working to find more ways to prevent and treat viral diseases.

4. **Opinion/Proof** (Intermediate) See page 13 for specific instructions. Allow the teams to write their own opinion to support with proof if they are at an advanced level. Use the following for less advanced teams.

Opinion

Proof

Bacteria are very helpful.

Some are decomposers that recycle dead matter into useable parts.

They flavor food and help in the production of some foods.

They are used in industry.

Some clean up oil spills in the ocean.

Opinion/Proof may be used for several written activities described in this document, including Story Grammars, RAFT, and Spool Writing. It can also be used by students

as a format for note taking from books, videos, and lectures.

5. **Spool Writing** (Intermediate) See page 14 for specific information. Using their texts and encyclopedias have students read about the Kingdom Protista. Then have student teams construct a five paragraph essay on protists. This essay should also incorporate fact and opinion. There will be five groups. One group will write the first paragraph for the introduction and the controlling idea. Another group will write about the characteristics of protists. The third group will write about animal-like protists and the fourth group will write about plant-like protists. The concluding paragraph will be written together with the teacher after each group has presented their paragraph.

6. **Organized Information Through Power Thinking** (Intermediate, Advanced) see page 14 for specific instructions.

7. **RAFT** (Advanced) See page 15 for specific instructions. Stress that students must understand their role as a writer, and consider their audience, the format, and the topic. Encourage students to write as a conversation or a speech. These topics may be used in a RAFT exercise.

a) A bacteriologist explaining the search for vaccines for AIDS and Herpes at a medical convention.

b) A doctor trying to convince parents to have their child vaccinated against common childhood diseases.

8. **FCAT Writing (Persuasive Prompt)** (Intermediate, Advanced) See page 34 for specific instructions. Distribute the planning sheets and the writing folders containing the writing prompt to the students. Remind students to budget their time. After 45 minutes, ask the students to stop writing and place their planning sheets inside their folders.

Protozoans cause many human diseases.

Think about protozoans. Recall what you know about animal-like protist and how they develop, get energy, move, grow and reproduce. Think about ways that we can prevent protozoan diseases. Think about what arguments you could produce to convince the Water Management Department to treat all our water to eliminate protozoan diseases.

Now present your arguments in front of the department's meeting.

Presenting Activities

1. **Dialog** (Beginning) See page 16 for specific instructions. This activity may be used to write the dialog in paragraph format using indirect speech. See Writing Activity 2.

Bacteriologist: *Scientists are working to develop new antibiotics and vaccines.*

Student: *What is the difference between an antibiotic and a vaccine?*

Bacteriologist: *Vaccines prevent diseases and antibiotics are used to treat diseases.*

Student: *Do we have vaccines to prevent all diseases?*

Bacteriologist: *No but we are constantly discovering new vaccines and testing them.*

2. **Show and Tell** (Intermediate) See page 17 for specific instructions.

3. **Making the News** (Advanced) See page 17 for specific instructions.

4. **Debate Teams** (Advanced) Divide the class in half. Form debate teams. Designate one team to discuss the use of some viruses to control animal populations. The other team will debate the issue from the point of view of animal rights activists. Brainstorm a list of best debate practices to be used as an evaluation checklist. Include delivery, content and persuasiveness. Allow time to research, prepare and practice debate topics. Have remaining teams evaluate the debaters.

Viewing Activities

See page 17 for specific instructions.

1. **Video Total Recall** (Intermediate, Advanced) See page 9 for specific instructions.

2. **Video True and False** (Intermediate, Advanced) See page 10 for specific instructions.

3. **Video Judgment** (Intermediate, Advanced) See page 11 for specific instructions.

Vocabulary Activities

1. **Line of Fortune** (Beginning) See page 18 for specific instructions. Choose your words from the Unit Vocabulary.

2. **Concentration** (Beginning) See page 18 for specific and additional instructions. Prepare cards as listed below. Tell the students that they will match related words. Prepare the cards as directed with the following vocabulary words.

damage

damaged

cause

caused

become

became

<i>prevent</i>	<i>prevented</i>
<i>inject</i>	<i>injected</i>
<i>include</i>	<i>included</i>
<i>kill</i>	<i>killed</i>
<i>recycle</i>	<i>recycled</i>
<i>digest</i>	<i>digested</i>
<i>control</i>	<i>controlled</i>

3. **Wrong Word** (Intermediate) See page 19 for specific and additional instructions. Suggested sentences follow.

- a) *Viruses are considered living because they do not need energy.*
- b) *Many common diseases are caused by vaccines.*
- c) *Bacteria help in the cooking of food.*
- d) *The process of heating milk before packaging is called refrigeration.*
- e) *Most protozoans live in the air eating bacteria, plankton and other organic matter.*

4. **Jeopardy** (Intermediate) See page 19 for specific and additional instructions.

Answer	Question
a) <i>Viruses</i>	<i>What are things that can kill or damage organisms called</i>
a) <i>bacteria</i>	<i>What is the oldest and most common organism called</i>
a) <i>algae</i>	<i>What are plant-like protists called</i>
b) <i>a host cell</i>	<i>What do viruses need for reproduction</i>
b) <i>binary fission</i>	<i>How do bacteria reproduce</i>
b) <i>mitosis</i>	<i>How do protists reproduce</i>
c) <i>vaccine</i>	<i>What is made from viruses which can no longer reproduce and helps to prevent diseases</i>
c) <i>chemosynthetic</i>	<i>What is it called when bacteria can make organic compounds from chemicals</i>
c) <i>nitrogen, carbon dioxide,</i>	<i>What does bacteria break dead matter into minerals?</i>

5. **Classification** (Intermediate) See page 19 for specific and additional instructions. Ask students to classify items under the following headings:

<u>Monerans</u>	<u>Protists</u>	<u>Diseases</u>
<i>bacteria</i>	<i>algae</i>	<i>dysentery</i>

Grammar Activities

1. **General Statements** A general statement is a sentence about something that is usually true. A general statement may be singular or plural. Write the following sentences on the board as examples of general statements:

A flower needs sunlight to grow.

Flowers need sunlight to grow.

A scientist observes her environment.

Scientists observe their environment.

Point out that the sentences in each pair have the same meaning. Help the students to create more sentences with general statements.

2. **Modified Single Slot Substitution Drills** (Beginning) See page 20 for specific instructions.

Plant-like (a) protists are producers and form the (b) basis of a food (c) chain in aquatic (d) environments.

Possibilities (a): *flagellates, euglenas, diatoms, dinoflagellates*

Possibilities (b): *bottom, foundation, groundwork, root, core*

Possibilities (c): *progression, sequence, series, string, cord*

Possibilities (d): *climates, habitats, homes, surroundings, areas*

3. **Word Order Cards** (Beginning) See page 21 for specific instructions. Choose some of the more complex sentences of the summary for this exercise to cut up.

4. **Sentence Builder** (Intermediate) See page 21 for specific and additional instructions.

a) Viruses kill organisms. (non-living)

Non-living viruses kill organisms. (Or damage)

Non-living viruses kill or damage organisms. (by using their living cells)

Non-living viruses kill or damage organisms by using their living cells. (For reproduction)

Non-living viruses kill or damage organisms by using their living cells for reproduction.

Continue with the following:

b) Viruses kill pets. (And livestock)(and damage crops)(as well as causing human diseases)(by various means)

c) The Kingdom Monera includes organisms. (oldest)(most common)(on the

planet)(which are bacteria)

d) Bacteria are found everywhere. (Including in the air)(and in water)(and on food)(and on skin)

e) Protozoans live in the water. (Most)(and eat bacteria)(and plankton)(to survive)

5. Multiple Slot Substitution Drills (Intermediate) See page 21 for specific instructions.

Scientists need to continue to search for new vaccines to prevent diseases in humans.

Possibilities: look for, ailments, creatures, bacteriologists, experiment on, sickness, people, biologists, plants, examine, epidemics, investigate, animals, botanists, infection, hunt for, illness, livestock, zoologists

6. Flesh it Out (Intermediate) Written Format. See page 21 for specific instructions. Tell the teams to write the missing words.

Viruses/things/can damage/kill/organisms.

Viruses are things which can damage or kill organisms.

a) Vaccines/made from/viruses/can't reproduce.

b) Bacteria/decomposers/break down/dead matter/recycle/parts

c) Refrigeration/cooking/slows down/ destroys/bacteria

d) Algae/plant-like releases/oxygen/found/environment

e) Protist/reproduce/process/mitosis/make copies/itself

7. Transformation Exercises (Intermediate) Oral Format. See page 22 for specific and additional instructions. Tell the teams to transform the following general statements into their alternate forms.

Viruses can be spread in many ways. A virus can be spread in many ways.

a) There are plant-like and animal-like protists,

b) Vaccines are made from viruses.

c) Bacteriologists develop vaccines.

d) Diseases can be prevented.

e) Monerans carry out the processes of living things.

8. Who, What, When, Where, How, Why (Intermediate) See page 22 for specific and additional instructions.

a) Viruses can be spread in the air by contact with other people.

(What/where/how)

b) Bacteriologists are trying to develop vaccines in the laboratory.

(Who/what/where)

c) Vaccination of children is important in order to prevent disease.

(What/who/why)

d) Protists use the process mitosis because they need to make copies of themselves. (what/why/how)

e) Bacteria use the process binary fission and reproduce every twenty minutes.

(What/when)

9. **Sentence Stretchers** (Intermediate) See page 23 for specific instructions. Write the first sentence on the board. Ask the teams to stretch the sentence by saying words or phrases. Write the responses on the board. The following is an example based on a sentence taken from the unit summary.

Bacteria are helpful.

Some bacteria are helpful.

Some bacteria are helpful to man.

Some bacteria are helpful to man by acting as decomposers.

Some bacteria are helpful to man by acting as decomposers and breaking down dead matter.

Continue with the following sentences.

b) Viruses do not grow.

c) Bacteria reproduce.

d) Bacteria are everywhere.

e) Algae releases oxygen.

10. **Look it Up** (Intermediate) Version Two. Written format. See page 23 for specific instructions. Review general statements. Locate sentences with general statements from the text and write them on the board. Tell the teams to locate more sentences in the text and write them on their paper.

11. **Rewrite the Paragraph** (Intermediate) See page 24 for specific instructions. Tell the teams they must rewrite sentences changing the general statements into their singular form.

Viruses are not living things. They cause viral diseases. Viruses are spread in many ways. Viruses can be prevented. Monerans carry out the processes of living things. Bacteria are decomposers. Bacteria are helpful. Bacteria are everywhere. Algae are protists. They are important in the environment. Protozoans cause diseases.

Name _____ Date _____

Unit 6, Exercise 1

Fill in the blank with the correct word.

dysentery
energy
vaccines
bacteria
fission
monerans
recyclers
protozoans
mitosis
structure
chemosynthetic
protein

Viruses have a simple _____. They have a piece of DNA surrounded by a _____ coat. Viruses are considered non-living because they do not need _____. Many viral diseases can be prevented by using _____.

The Kingdom Monera includes the oldest and most common organism on the earth _____. Besides being photosynthetic some bacteria are also _____. Bacteria that are decomposers are the earth's best _____. Bacteria reproduce by binary _____.

The Kingdom Protista contains _____. Examples of these are amoebas and _____. A disease caused by protozoans is _____.

Monerans reproduce by a process known as _____.

0

Name _____ Date _____

Unit 6, Exercise 2

Write True or False for each sentence. If the sentence is false, rewrite it to make it true.

_____ 1. Viruses are things that are helpful to organisms.

_____ 2. Many common human diseases are caused by viruses.

_____ 3. A vaccine is made from a virus which can no longer reproduce.

_____ 4. The Kingdom Monera includes viruses.

_____ 5. Bacteria reproduces by a process called mitosis.

_____ 6. Animal-like protists are called protozoans.

_____ 7. Cooking food causes bacteria to develop.

_____ 8. A group of protists called euglenas are both plant-like and animal-like.

_____ 9. Monerans cannot carry out all the processes of living things.

_____ 10. All bacteria is harmful.

Name _____ Date _____

Unit 6, Exercise 3 (FACT Practice/Reading Comprehension)

Reread the summary. Locate sentences that are fact and sentences that express opinions.

Ex. Bacteria are producers, consumers and decomposers. (Fact)
Bacteria are helpful. (opinion)

Now using your text locate 5 sentences that are FACT and 5 sentences that are OPINION. Write them on the lines below.

FACT

OPINION

Name _____ Date _____

Unit 6, Exercise 4 (FACT Practice/Reading Comprehension)

Conclusion: A conclusion is a statement that you can infer from the information in a paragraph. You add your own past knowledge to this information and come up with a conclusion. A conclusion is not stated in the paragraph but you can figure it out by adding together your knowledge of the topic and the information given. Read the following paragraph and then answer the questions.

Viruses cause many diseases in living things. In humans, viruses cause the flu, measles, mumps, hepatitis, herpes and AIDS. In animals they cause rabies in dogs, foot and mouth disease in cattle and leukemia in cats. Viruses also cause many diseases in plants.

Viruses are spread in many ways. Some are found in food and water. Some are spread by insects or are airborne. Some viruses are spread from one person to another.

Viruses can be prevented by vaccines which are made from viruses which can no longer reproduce. We have many vaccines for diseases but there are still many viral diseases that do not have vaccines

1. What conclusion can you draw about viruses?

2. What conclusion can you draw about the need for more research?

3. What other conclusions can you draw from this article?

Name _____ Date _____

Unit 6, Exercise 5

Fill in the blanks.

Viruses

Viruses are things that _____ damage or kill organisms. But _____ are not classified into _____ kingdom. Many biologists do not _____ viruses to be living _____.

Viruses are similar to _____. They use the living _____ and damage them. They need a _____ cell for reproduction.

There are _____ viral diseases which affect our _____. Viruses can be spread many _____. Some are carried by insects. _____ can be found on food or in _____. Many viruses can become _____.

Many viral diseases can be _____ by using vaccines. We now _____ vaccines for many diseases. _____ are working to develop other vaccines.

Monerans

The Kingdom Monera includes the _____ and most common organisms on this _____ bacteria.

Monerans carry out all the _____ of living things. Some bacteria are _____, some are consumers, and _____ are decomposers.

Bacteria that are _____ are some of the earth's _____ recyclers. When an animal dies, _____ break the body down into _____ parts, such as nitrogen, carbon _____ and

minerals.

Many bacteria are helpful. _____ reproduce by a process called _____ fission. When the bacteria get _____, they can reproduce again. Most _____ spoilage is due to _____. Bacteria are found everywhere. _____ can be in the air, in the _____ or on food.

Protists

The Kingdom Protista contains a _____ variety of organisms. All _____ have nuclei. Some protists are _____, some are multicellular. Some _____ are animal-like and some _____. The Kingdom Protista is the _____ for organisms that just don't fit in any other kingdom.

Plant-like protists are called _____. Animal-like protists are called _____. Examples of protozoans include _____ and paramecium. Most protozoans live in the _____, eating bacteria, plankton or _____ organic matter. However, many _____ diseases are caused by _____.

Name _____ Date _____

Unit 6, Exercise 6 Grammar

Change each general statement into its singular form if possible.

1. Viruses are not living things.

2. Viral diseases affect our lives.

3. Viral diseases can be prevented.

4. Bacteria are good recyclers.

5. Bacteria can be harmful.

6. Algae help the earth's entire environment.

7. Protozoans cause diseases.

8. Our water is clean.

9. Scientists do research.

10. People sleep.
