

OAKLAND CUSD #5

BIOLOGY

APRIL 27-MAY 1, 2020

DEBRA WELCH

Week #4: April 27-May 1, 2020

High School Science

Debra Welch

Hello students! I hope all of you are staying healthy. I just want everyone to know that I am thinking 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. 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!

Anatomy: for those of you who wanted to continue learning throughout the body systems I will be including notes and sending you powerpoints to use with Choice #3. If you plan to go into a medical field I advise you to go ahead and complete the Enrichment on the body systems we could not study due to school closure.

Lesson Choices on next page:

Class	Choice 1	Choice 2	Choice 3 (Enrichment)
<p>Biology</p>	<p>Science of Life-Graph & questions:</p> <p>Study the 2 graphs (fig 1) and answer questions 1-6 "completely" Do back-V. Scientific Method & Jenner experiment.</p>	<p>Do content Mastery p2 and Chapter Review 1-2 (Know the terms 1-20).</p>	<p>READ the powerpoint notes on Viruses that was in Week #2's packet & do: Concept Mapping p12, 1-10. And part 2- Notebook 18-2: p183-185 fill in the notes using your textbook.</p>
<p>Anatomy</p>	<p><u>Re:view</u> Chap 1- Do p20 Review Questions: 1-5; pick 2 from short answer essay 1-11; pick 1 from At the Clinic-1-4.</p>	<p><u>Review:</u> Do Review Questions from p27 (Martini Anatomy book): 1-21.</p>	<p><u>New chapter: Blood</u> Continue through the Act #1 Blood packet for this week, p. 8-11</p> <p>I am including the entire Act #1 on Blood to be done over 2 weeks. Start on pg3-7 for Week #3. (Do not do #15 on page 8.) I have emailed to all students the powerpoint notes for this packet. <i>I am including packets like this for those who want to continue their education in the rest of the body systems we could not cover due to COV-19.</i></p>

BIOLOGY—THE SCIENCE OF LIFE

Biology (Welch)

Interpreting and Applying Concepts

The graphs in Figure 1-1 depict human growth in height from birth through age 18 for males and females. Study the graphs and then answer the questions.

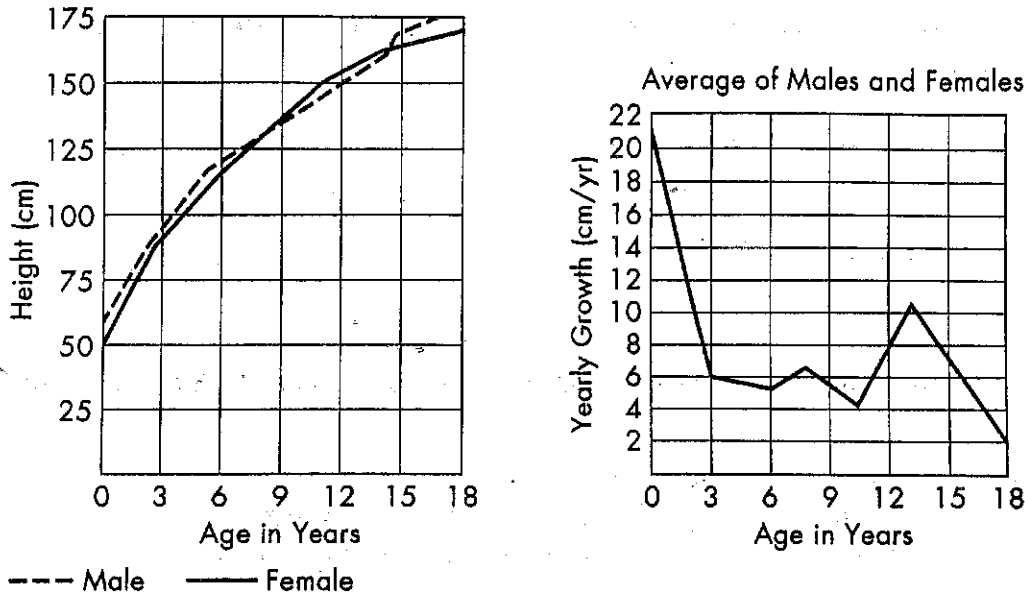


Figure 1-1

1. On the first graph, what indicates that growth takes place from birth to age 3?

2. From ages 6 to 9, about how many centimeters does a female child grow?

3. During what range of ages do females generally grow faster than males?

4. About how many centimeters taller are males at age 15 than females at the same age?

5. During which years do all children tend to grow the fastest?

6. Describe the trend in human growth depicted in the second graph.

4/27 - S/1; Choice 1
Biology (Welch)

V. Read the paragraph below; then list the steps of the scientific method and describe how Jenner used each of them to discover a vaccine for smallpox. Place your answer in the space provided.

In 1796, Edward Jenner invented the first vaccine against a deadly disease called smallpox. Like others of his time, he wondered what could be done to prevent smallpox. Jenner noticed that the milkmaids who milked the cows often caught a mild disease called cowpox, but they rarely caught smallpox. Jenner guessed that cowpox made the milkmaids immune to smallpox. Jenner took the pus from a cowpox blister and injected a small boy with it. The boy caught cowpox. Then he injected the boy with pus from a smallpox blister. The boy did not get smallpox. Jenner decided that the boy must have become immune to smallpox by having cowpox.

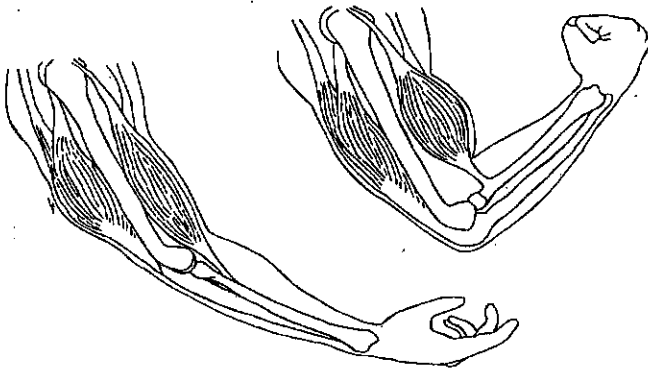
Section 1.1 What Is Biology?

Study the Pictures

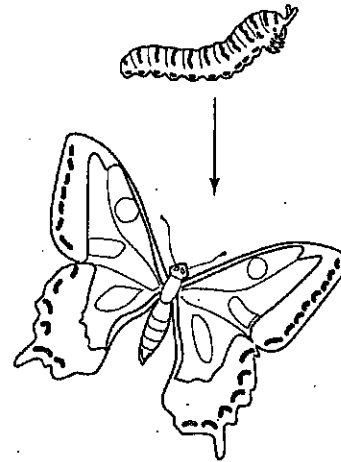
- Characteristics of Living Things**
1. Living things have parts that work together.
 2. Living things make more living things.
 3. Living things change during their lives.
 4. Living things respond to their surroundings.

Write the number of the characteristic from the box above that goes best with each picture.

A _____



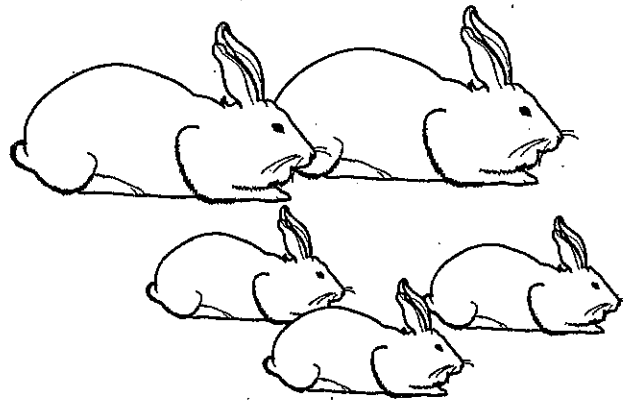
C _____



B _____



D _____



CHAPTER REVIEWChoice 2
Biology (Welch)

CHAPTER

**Know the Terms**

Select the most appropriate words from the following list to complete the paragraph.

respiration	biology	aerobic
synthesis	metabolism	homeostasis
cells	energy	organism
anaerobic	nutrition	reproduction

(1) is the study of living things. Anything that is living is called a/an (2), which is composed of one or more (3) and utilizes (4) to maintain its organization and carry out normal functions. This is derived through the process of (5). There are two forms of this in living organisms. One type requires the use of oxygen and is called (6). (7) respiration does not require oxygen. The total of all chemical reactions within an organism is called (8). Some of these reactions involve building more complex molecules from less complex ones. This is called (9). In all cases, however, the organism is trying to maintain a constant internal environment, called (10).

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Match the word with the correct definition.

a. nutrients	f. life
b. regulation	g. transport
c. excretion	h. growth
d. sexual reproduction	i. assimilation
e. ingestion	j. asexual reproduction

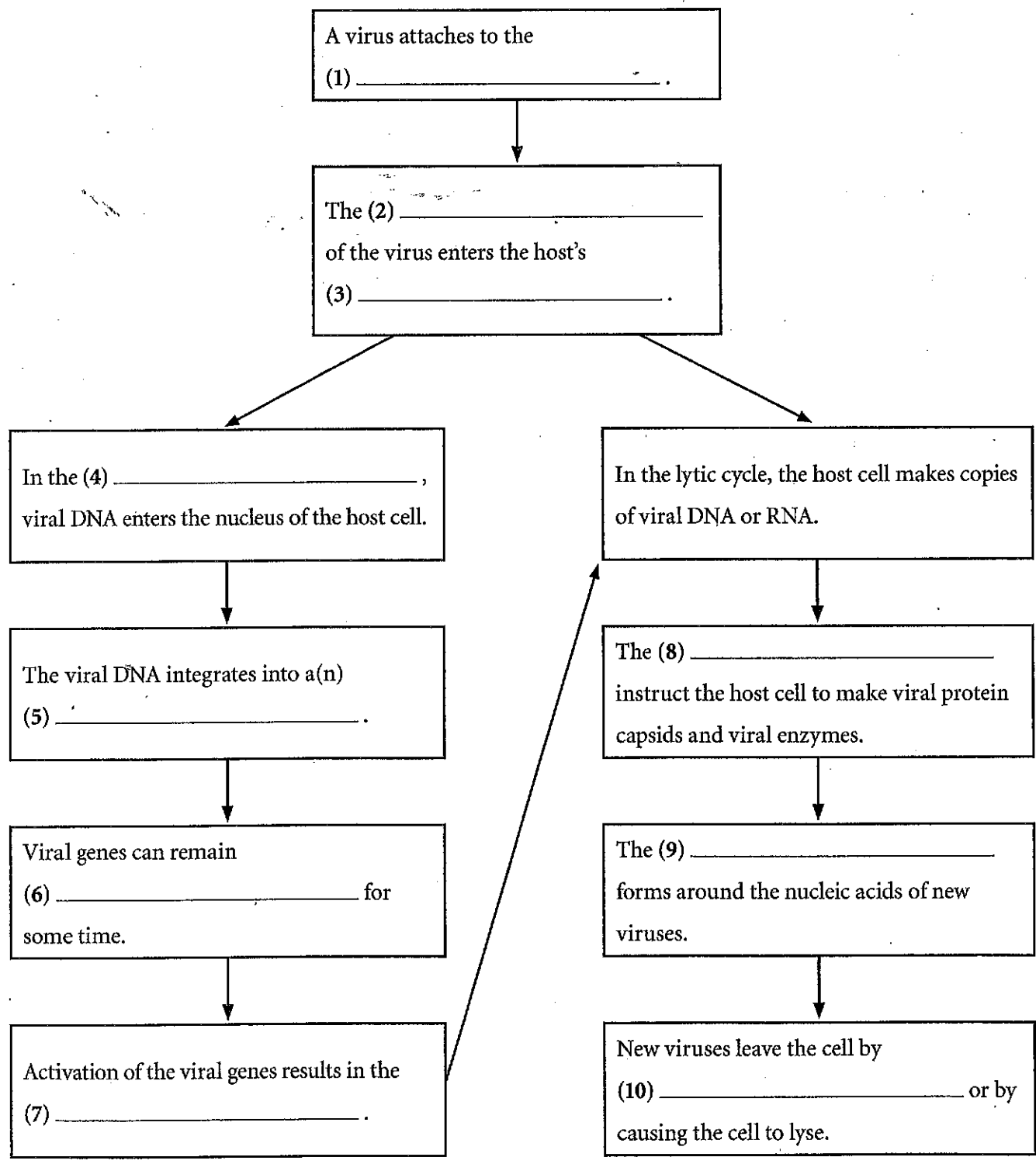
11. taking in food
12. reproduction involving only one parent
13. removal of wastes from an organism
14. the passing of substances into or out of cells or circulation within an organism
15. incorporation of materials into an organism
16. reproduction involving two parents
17. the process by which living organisms increase in size
18. all activities that help maintain homeostasis
19. quality distinguishing organisms from inorganic materials
20. substances an organism takes from its environment

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Concept Mapping

CHAPTER 18 Viral Infections

Complete the events chain about how the lytic cycle and lysogenic cycle in viral infections are related. These terms may be used more than once: cytoplasm, dormant, exocytosis, genetic material, host cell, host cell chromosome, lysogenic cycle, lytic cycle, protein coat, viral genes.



Copyright © Glencoe/McGraw-Hill, a division of The McGraw-Hill Companies, Inc.

Bacteria and Viruses

Biology (Welch)

Section 18.2 Viruses and Prions

Main Idea

Details

Scan the table and time line in Section 2 of the chapter. Write three facts you discovered about viruses from these elements.

1. _____
2. _____
3. _____

Review Vocabulary

Use your book or dictionary to define protein.

protein

New Vocabulary

Use the new vocabulary terms in the left column to complete the following paragraph.

- capsid
- lysogenic cycle
- lytic cycle
- prion
- retrovirus
- virus

A _____ is genetic material within a protein coat, but it has no organelles or other characteristics of life. The genetic material lies inside its _____, or outer layer of protein. In the _____, viral genes instruct the host cell to make many copies of the viral RNA or DNA. Some viruses replicate in a _____, in which the viral DNA integrates into a host chromosome and lies dormant for some time. A _____, such as the HIV virus, contains RNA instead of DNA. Mutation in the genes of a normal protein called a _____ is responsible for diseases such as "mad cow."

Academic Vocabulary

Define widespread to show its scientific meaning.

widespread

Section 18.2 Viruses and Prions (continued)

Biology (Welch)

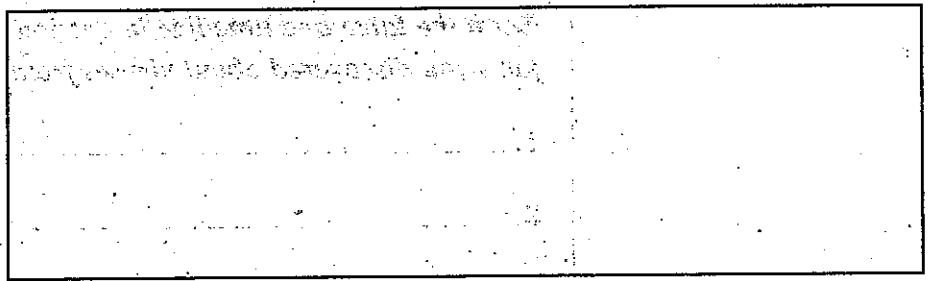
Main Idea

Details

Viruses

I found this information on page _____

Model of one type of virus. Label its parts.



Viral Infection

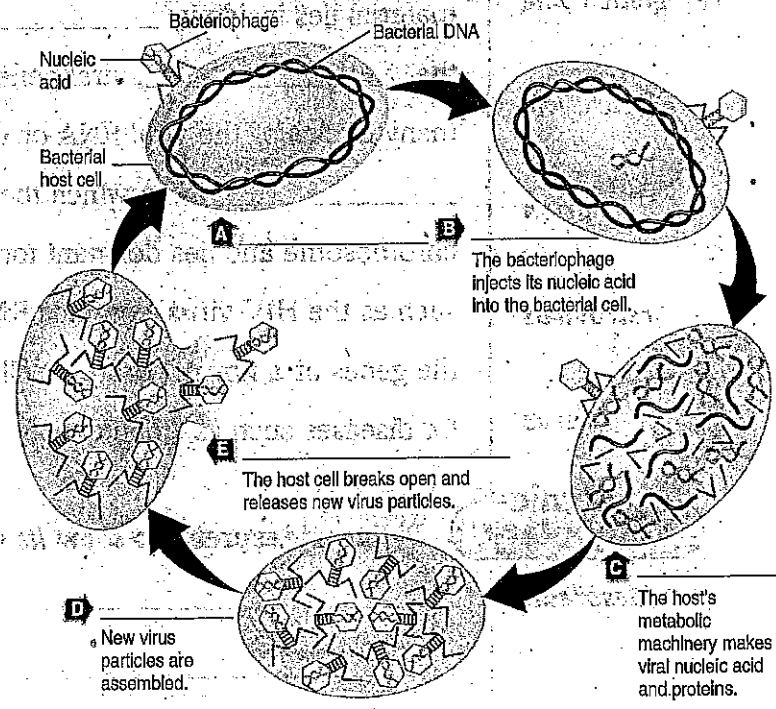
I found this information on page _____

Synthesize why many viruses cannot pass from one species to another.

Four horizontal lines for writing a synthesis response.

Label steps A, B, C, D, and E of a lytic cycle in the figure below. Use the following terms.

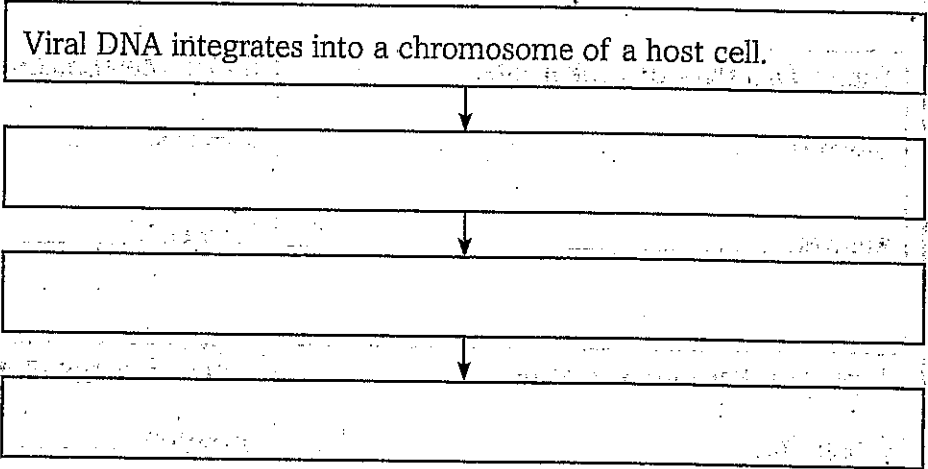
- Assembly
- Attachment
- Entry
- Lysis and Release
- Replication



Main Idea

Details

Sequence the steps of a lysogenic cycle.



Retroviruses

I found this information on page _____

Evaluate and discuss the role of reverse transcriptase in the replication cycle of HIV.

Prions

I found this information on page _____

Summarize information about prions by completing the table.

What is a prion?	What causes a prion to become harmful?
How might humans contract a prion-caused disease?	What is the result of prion infection?

SUMMARIZE

Conclude whether viruses that replicate by the lytic cycle or the lysogenic cycle are more dangerous. Explain your reasoning.
