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STUDENT HANDOUTS

- Reading Comprehension

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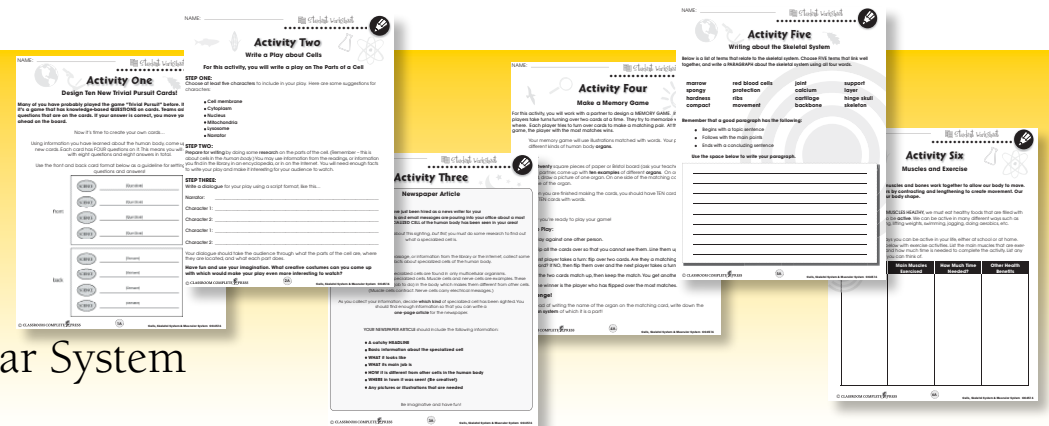
MINI POSTERS 22

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6 Bonus Activities!

3 EASY STEPS to receive your 6 Bonus Activities!

- Go to our website:
www.classroomcompletepress.com/bonus
- Click on item CC4516 – Cells, Skeletal System & Muscular System
- Enter pass code CC4516D





Cells, Tissues, Organs and Systems

1. Match the word on the left to the definition on the right. You may want to use a dictionary to help.

- organ
- nerves
- complex
- tissue
- simple
- organism

- A: Something that is made of many different parts or units
- B: A group of cells that have a similar job to do
- C: A group of tissues that have a specialized job (the heart is one of these)
- D: A single living thing made of many systems (a human being is an example of this)
- E: These carry electrical messages between the brain and other parts of the body
- F: Something that is not complicated or complex

2. The things listed here are ones we have studied so far. Sort them into two groups - those you think are simple and those you think are complex. Write your answers in the chart. Remember, you can use a dictionary to help.

- unicellular organism
- amoeba
- multicellular organism
- bacteria
- cell
- human
- system
- organ

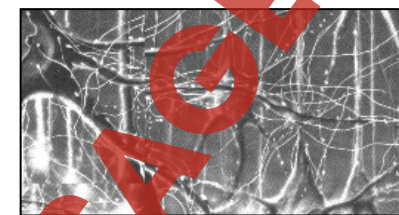
Simple	Complex



Cells, Tissues, Organs and Systems

What Are Tissues?

Tissue is a group of cells that work together in the organism to do a specialized job. There are **four main tissue types** in the human body.



The chart below shows what each of these types of tissue do and where they are found.

Tissue Type	What It Does	Examples
 epithelial tissue	<ul style="list-style-type: none"> Covers and lines the surfaces of major organs Helps keep these organs separate, in place and protected 	<ul style="list-style-type: none"> Outer layer of skin Inside lining of the digestive system
 connective tissue	<ul style="list-style-type: none"> Gives support and structure to the body 	<ul style="list-style-type: none"> Inner layers of skin, tendons and ligaments Strange as it may seem, blood is a type of connective tissue, too!
 muscle tissue	<ul style="list-style-type: none"> Specialized tissue that can change size by contracting (shortening) and flexing (lengthening) Allows the body to move 	<ul style="list-style-type: none"> Smooth muscles (inside lining of organs) Skeletal muscles (attached to bones) Cardiac muscles (in the heart)
 nerve tissue	<ul style="list-style-type: none"> Carries messages, in the form of electrical signals, through the body 	<ul style="list-style-type: none"> Brain Spinal cord Nerves

1. What do you think **MUSCLE TISSUE** is made of?

2. What do you think **NERVE TISSUE** is made of?



Cells, Tissues, Organs and Systems

1. Fill in each blank with a term from the list.

- tendons
- skin
- epithelial
- tissue
- blood
- brain
- nerve
- connective
- muscle
- spinal cord
- smooth

There are four main types of _____ in the human body. _____ tissue carries important electrical signals around our body. Our _____ and _____ are examples. _____ tissue adds support to the body. _____ are an example. So is _____! _____ tissue is important for all the movements we make. One type of this tissue is called _____ muscles. _____ tissue lines and covers our inside organs. The outer layer of our _____ is an example.

2. Circle **T** if the statement is TRUE or **F** if it is FALSE.

- T F a) Organisms are simpler and less complex than organs.
- T F b) Organ systems group together to create whole organisms.
- T F c) Epithelial tissue covers the surface of our major organs.
- T F d) There are five main types of tissue in the human body.
- T F e) Tendons and ligaments are examples of connective tissue.
- T F f) All living things are made of cells.
- T F g) Cells are smaller and simpler than either tissues or organs.



Cells, Tissues, Organs and Systems

3. Why is epithelial tissue important to the health of major organs?

4. What is the difference between simple parts and complex parts of an organism?

5. In the flow chart below, list these five levels in order from simplest on the left to most complex on the right: **organism, organ, tissue, cell, organ system**

```

    graph LR
    A --> B --> C --> D --> E
    
```

SIMPLEST MOST COMPLEX

Extensions & Applications

6. Human body tissues and plant tissues have **similarities** and **differences**. Investigate both kinds of tissue. Record your findings in a Venn diagram like the one below comparing and contrasting each.

Human Body Tissues

Plant Tissues

7. We have read about the ideas of "simple" and "complex". These ideas apply to many different things. Make a list of all the food dishes you eat at your favorite holiday meal. What are the **simple ingredients** that make up the **different dishes**? What dishes make up the **meal**? Record your ideas in a chart that shows how simple ingredients are put together to make dishes, and dishes are put together to make a complex meal.



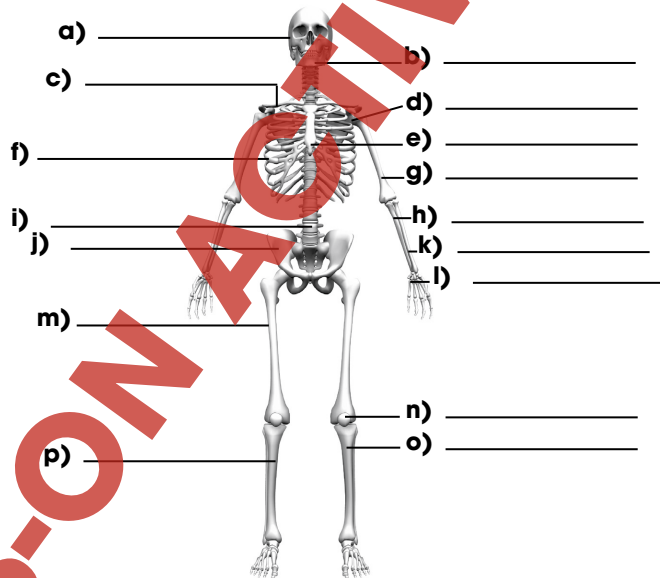
Invent an Alien Skeleton!

This activity has two parts. For the first part, you will label the bones in the human skeleton. For the second part, you will use what you have learned to invent your own extra-terrestrial skeleton.

Part 1

Use the words in the list to label the bones on the skeleton. You may need to do some research to complete this part.

- ribs
- patella
- backbone
- pelvis
- femur
- tibia
- scapula
- sternum
- humerus
- fibula
- clavicle
- radius
- phalanges
- ulna
- mandible



Part 2

Now, it is time to draw your own alien skeleton! You must use at least ten different skeleton parts from the diagram above. You may use the parts more than once if you like. Be as imaginative as you can! Draw your skeleton on a separate sheet of paper. Above your drawing, copy and complete the following:

Hello! I am an extra-terrestrial from the planet _____.

My name is _____ and my favorite food is _____.

I have _____ skulls, _____ femurs, _____ tibias, and _____ ribs.



Crossword Puzzle!

Across

- Muscle tissue changes size by _____ and lengthening
- The human body is made of _____ cells
- Muscle _____ are like elastic string
- Humans are _____ organisms
- The knee is an example of a _____ joint
- _____ muscles allow our bones to move
- Cells group together to form _____
- The cell contains special information called _____
- There are _____ major organ systems in the human body



Down

- The liquid inside a cell is called _____
- The skeletal system is made of bones, joints and _____
- The heart is made of _____ muscle
- Nerve tissue carries messages from the brain in the form of electrical _____
- The digestive system is made of mostly _____ muscles
- Muscles work in _____; one shortens and the other lengthens
- Mitochondria turn food into _____

Word List

- | | |
|---------------|-------------|
| specialized | cytoplasm |
| contracting | energy |
| DNA | cardiac |
| cells | involuntary |
| tissues | pairs |
| hinge | cartilage |
| multicellular | signals |
| eight | skeletal |



Comprehension Quiz

Part C

Answer each question in complete sentences.

- What are **specialized cells**? Are they found in unicellular or multicellular organisms? Give an example of an organism that is made of specialized cells. 3

- Name **two parts of a cell**. Describe the **function** of each part in the cell. 4

- Name **one kind of tissue** in the human body. Describe **what it does** in the body. Give an example of this type of tissue. 3

- What is the difference between **voluntary** and **involuntary** movement? Name **one** kind of muscle that moves voluntarily. Name **one** kind of muscle that moves involuntarily. 4

- Describe how **voluntary movement** happens. Use the words **brain**, **muscle pair** and **bone** in your answer. 4

SUBTOTAL: /18

Muscular Runner



NAME: _____

After You Read 

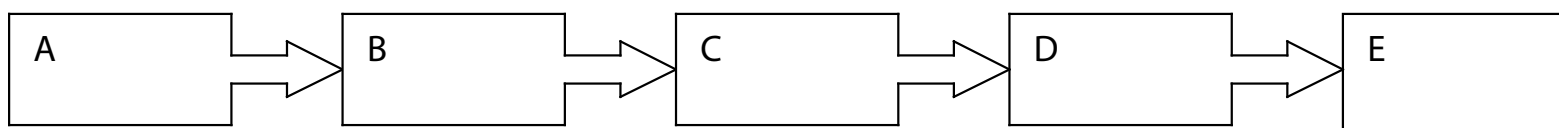


Cells, Tissues, Organs and Systems

3. Why is epithelial tissue important to the health of major organs?

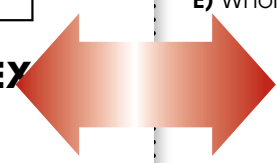
4. What is the difference between simple parts and complex parts of an organism?

5. In the flow chart below, list these five levels in order from simplest on the left to most complex on the right: **organism, organ, tissue, cell, organ system**



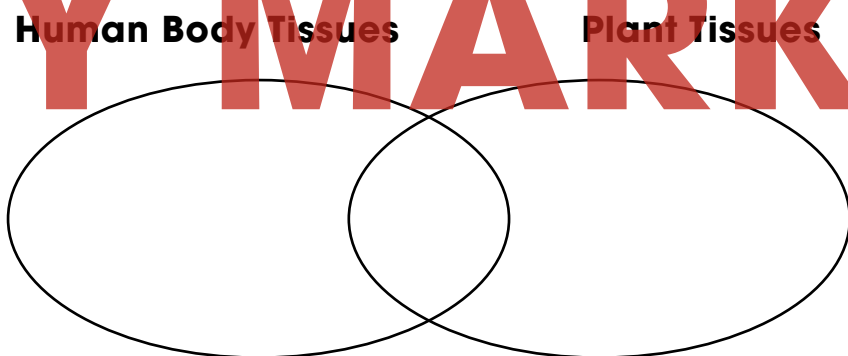
SIMPLEST

MOST COMPLEX



Extensions & Applications

6. Human body tissues and plant tissues have **similarities** and **differences**. Investigate both kinds of tissue. Record your findings in a Venn diagram like the one below comparing and contrasting each.



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3. Keeps organs separate, in place, protected

Answers will vary

12

4. Simple parts join together to form complex parts

Answers will vary

13

Part 1

- 5. A) cell
- B) tissue
- C) organ
- D) organ system
- E) Whole organism

- a) skull
- b) mandible
- c) clavicle
- d) scapula
- e) sternum
- f) ribs
- g) humerus
- h) ulna
- i) backbone
- j) pelvis
- k) radius
- l) phalanges
- m) femur
- n) patella
- o) tibia
- p) fibula

6. Answers will vary based on resources used

EASY MARKING ANSWER KEY

7. Answers will vary

11

Part 2

Answers will vary

14

15

