Multi-Cellular Organization Reading

CELLS: LEVEL ONE

Within a multi-cellular organism there is a division of labor. Division of labor means that the work of keeping the organism alive is divided among the different parts of the body. Each part has a specific job to do. And as each part does its special job, it works in harmony with all the other parts.

The arrangement of specialized parts within a living thing is sometimes referred to as levels of organization. Cells, of course, are the first level of organization.

TISSUES: LEVEL TWO

In any multi-cellular organism, cells rarely work alone. Cells that are similar in structure and function are usually joined together to form tissues. Tissues are the second level of organization.

Bone cells in your body form bone tissue, a strong solid tissue that gives you shape and support. Blood cells in your body are part of blood tissue, a liquid tissue responsible for transporting food and oxygen throughout the body.

ORGANS: LEVEL THREE

Tissues are further organized in organs, the third level of organization in living things. Organs are groups of different tissues that work together. Your heart, for example, is an organ made up of muscle tissue, blood tissue, and nerve tissue. You are probably familiar with the names of many of the body organs. The brain, stomach, kidneys, and skin are some examples.

ORGAN SYSTEMS: LEVEL FOUR

Like cells and tissues, organs seldom work alone. They "cooperate" with one another and form specific organ systems. Organ systems are the fourth level of organization in living things. An organ system is a group of organs working together to perform a specific function for the organism.

ORGANISMS: LEVEL FIVE

You are an organism. Dogs, trees, and butter cups are also organisms. Even a unicellular bacterium is an organism. An organism is an entire living thing that carries our all the basic life functions. The organism is the fifth level of organization.

Cells, tissues, organs, organ systems organisms—each level of organization interacts with every other level. The smooth functioning of a complex organism is the result of all it various parts working together.
Levels of Organization

Cells: Level One
Within a multi-cellular organism there is a ________________ ________________.
Division of labor means that the work of keeping the organism alive is divided among the
different parts of the body. Each part has a __________________________ job to do.

The arrangement of specialized parts within a living this is sometimes referred to as
__________________ ________________. Cells of course, are the
____________________ level of organization.

Tissues: Level Two
In any multi-cellular organism, ______________ rarely work alone. Cells that are
____________________ in structure and function are usually joined together to form
____________________. Tissues are the ________________ level of organization.
Bone cells in your body form bone tissue. Blood cells in your body form blood tissue.

Organs: Level Three
Tissues are further organized into ________________, the ______________ level of
organization in living things. Organs are groups of different tissues that work together. Your
heart, for example, is made up of ________________ tissue, ________________ tissue, and
______________ tissue. You are probably familiar with the names of many of the body
organs. The brain, ________________, kidneys, and _______________ are some
examples.

Organ Systems: Level Four
Like cells and tissues, organs seldom work ______________. They “cooperate” with one
another and form specific ________________ ________________. Organ systems are the
____________________ level of organization in living things. An organ system is a
______________ of organs working together to perform a specific function for the organism.
An example would be your digestive system. It is made up of several organs such as your esophagus, stomach, and intestines.

**Organisms: Level Five**

__________ are an organism. Dogs, trees and buttercups are also organisms. Even a unicellular (one celled) bacterium is an organism. An organism is an entire ____________ ____________ that carries out all the basic life functions. The organism is the ____________ level of organization.

__________ → tissues → organs → ____________ ____________ → ____________ → ____________

each level of organization interacts with every other level. The smooth functioning of a complex ____________ is the result of all its various parts ____________ together.