

NAME: _____
HUMAN BODY OWNERS MANUAL

DATE DUE _____

DIRECTIONS:

When you are not in DNA day you will be researching and creating an owner's manual for your body. This will include information about each one of your body systems, the maintenance of it, as well as problems associated with it. Essentially it will mirror the owner's manual of a vehicle, except that it will be based on the human body. This manual will be broken into sections, each dealing with a different aspect of the human body and its maintenance. You will have at least two pages per system. Some of the basic guidelines for the manual are below:

Each system will be researched and presented in booklet form. The guidelines are below:

- For each system you must **complete/answer questions from Part I, II, and II.**
 - Take notes and then compose your answers to the questions.
 - Information may be presented in bullet, outline, or paragraph form.
 - Be sure the answers are in complete sentences.
- Each system must have an accompanying diagram
 - The diagrams must be in color.
 - Diagrams may be hand drawn or computer generated.
 - The major structures of the organ system should be labeled.
 - The diagrams must take up one whole size of a page (8 1/2" x 11")

Nine Organ Systems
Each member must do 3 systems

- ◆ **Circulatory**
- ◆ **Endocrine**
- ◆ **Digestive**
- ◆ **Reproductive**
- ◆ **Excretory**
- ◆ **Nervous**
- ◆ **Respiratory**
- ◆ **Skeletal and Muscular**
- ◆ **Immune**



- All text must be typed.
- The manual must be bound in a report cover or a binder.
- The manual must include a title page with everyone's name on it.
- All pages must be numbered.
- There must be a table of contents that refers to numbered pages.
- **All sources must be cited on the last page.**
 - Your textbook must be one source.
 - At least one journal (magazine) must be used as a source.

If any sources are plagiarized you will get a grade of 0%.

PART I: General Questions

For each of the eight organ systems give the following information:

- What organs make up the system?
- What is the function of the system?
- How does the system perform its function(s) – what exactly *does* it do?
- Describe two (2) diseases of the system; include common symptoms, causes, and treatments.
- Provide URLs for 2 websites that are interactive or give additional information.
- **Include a diagram with the major components of the system labeled.**

PART II: System Specific Questions

Answer the questions listed related to each specific system:

- Circulatory System: What are the four main components of blood?
Why is blood red?
What are the functions of blood?
List the pathway of blood through the heart, beginning with the *Superior/Inferior Vena Cava* and ending with the *Aorta*
Compare and Contrast *Veins* and *Arteries*
- Endocrine System: What is a hormone?
List 6 hormones and their functions.
One hormone must be *thyroxine (thyroxin)*
One of your two diseases **must** be diabetes.
Describe negative feedback control.
How does it help maintain homeostasis?
- Digestive System: List four enzymes that play a role in digestion.
What secretes them?
What is their function?
What is peristalsis?
What are villi? Where are they located? What is their purpose?
- Reproductive Sys: What is a gamete?
Describe the female and male gametes.
Where does fertilization occur:
What nourishes the fetus?

- Excretory System: What are the various waste products produced by the body?
How do we extract wastes from the blood?
List three ways the body excretes waste.
- Nervous System: What are the parts of the brain and what do they do?
What are neurons?
What is a reflex?
- Respiratory System: List the path of air through the respiratory system.
- Skeletal and musc: What are the three types of muscle, where are they found?
What are bones made of?
Contrast ligaments and tendons.
What does cartilage do and where is it found?
- Immune System: List the types of cells that make up the immune system
with their functions.
What is passive immunity? Give an example.
What is active immunity? Give an example.

PART III: Health Tips: These *must be specific* for each system.

- How do you take care of each system?
- What can you do to maintain the "health" of each system?
- Research a maintenance tip specific for all 8 of the organ systems and add each health tip to the appropriate section of their owner's manual.

Other Information:

- Each day late (actual days, weekends count!): lose 10%
- Handed in by _____: extra 10%
- Handed in by _____: extra 2%
- The four best projects (based on quality and information) which are turned in on time or early, will receive an automatic 100%
- Your Notes must be handed in with the project:

If your notes are not turned in your project will not be graded and will be counted as **late.**