**BODY/ PLANT SYSTEM BOOK.**

You will create a book covering human body systems. It will contain drawings, descriptions, facts, and diseases. To begin, select any animated character to be the focus of your book. It could be a DC comic hero, Dora, Stewie, etc. Remember, you will be drawing human body systems in the character. You may find it easier to print a coloring page from the internet to complete the project.

Time will be given in class to work on the activities. Each section will be counted as a **daily grade** and the final book will be a **lab grade** and an **exam grade.**

* Cover
  + Include a clothed version of your character
  + Your name, date, period and title of the book
* Table of contents
  + List titles of the pages found in your book and the page number where topics are found.
* Section 1 - **Skeletal System**
  + Draw the skeleton in your character’s body.
  + Label 10 major bones
  + Describe the functions of the skeletal system.
  + List and describe three diseases of the skeletal system.
  + Draw and label the **root** and **shoot** system of a plant.
  + Describe function of root and shoot system
* Section 2- **Muscular System**
  + Draw the major muscles in your character’s body.
  + Label 10 major muscles
  + Describe the functions of the muscular system.
  + List and describe three diseases of the muscular system.
  + Define tropism
  + Write and draw the following types of **tropism**
    - **Phototropism**
    - **Gravitropism**
    - **Thigmotropism**
* Section 3- **Integumentary System**
  + Draw and label the integumentary system on your character’s body.
  + Describe the functions of the integumentary system.
    - Define **homeostasis**
  + List and describe three diseases of the integumentary system.
  + Draw the cross section of a leaf to include:
    - Cuticle, epidermis, mesophyll, stoma, vein, lower epidermis
* Section 4- **Circulatory System and Lymphatic System**
  + Draw the circulatory system and the lymphatic system in your character’s body.
  + Describe the functions of the circulatory system and the lymphatic system.
  + Label 3 major lymph nodes
  + List and describe three diseases of the circulatory system.
  + Define and draw the **xylem** (must include arrows)
  + Define and draw the **phloem** (must include arrows)
* Section 5- **Respiratory System**
  + Draw and label the respiratory system in your character’s body.
  + Describe the functions of the respiratory system.
  + List and describe three diseases of the respiratory system.
  + Draw and label the **stomata** and **guard cells**
    - Describe the function of the **guard cells**
    - Describe function of the **stomata**
* Section 6- **Digestive System**
  + Draw the digestive system.
  + All drawings must be properly labeled.
  + Describe the functions of the digestive system.
  + Make a chart explaining nutritional needs and must include:
    - **Carbohydrates**
    - **Lipids**
    - **Protein**
  + List and describe three diseases of the digestive system.
* Section 7- **Excretory System**
  + Draw the excretory system in your character’s body.
  + All drawings must be properly labeled.
  + Describe the functions of the excretory system.
  + List and describe three diseases of the excretory system.
* Section 8- **Endocrine System**
  + Draw the endocrine system in your character’s body.
  + All drawings must be properly labeled.
  + Describe the functions of the endocrine system.
  + List and describe three examples of hormones
  + Describe the role of auxin in plant growth
* Section 9- **Nervous System**
  + Draw the nervous system in your character’s body.
  + All drawings must be properly labeled.
  + Describe the functions of the nervous system.
  + List and describe three diseases of the nervous system.
* Section 10- **Reproductive System**
  + Draw the appropriate reproductive system in your character’s body.
  + Create drawing of the opposite sexes reproductive system.
  + Create a drawing of a sperm cell and an egg cell. All drawings must be properly labeled.
  + Create/Explain in a chart what Meiosis and its role.
  + Draw a flower(s) and label the following:
    - Stamen (anther, filament)
    - Pistil (stigma, style, ovary)
    - Petal
    - Sepal
* Section 11- **Immune System**
  + Next to the character describe the functions of the immune system.
  + Draw a **virus** (COVID-19) and label the following:
    - **Capsid**
    - **Genetic material**
    - **Surface protein**
  + Describe what would happen if your character got infected with COVID-19
* Section 12- **Body Systems Interactions**
  + Using the integumentary, skeletal and muscular systems describe a scenario where all 3 systems work
    - Draw your character in the scenario
  + Using the endocrine, circulatory, and digestive system describe a scenario where all 3 systems work
    - Draw your character in the scenario
* Creativity-different, outside of the box
* Neat (easy to understand)
* Colorful
* Video Presentation- **How you turn it in!** (20 possible points)
  + Speak clearly and loudly. (5 points)
  + Easy to see- good lighting (5 points)
  + Confidence in your presentation- you know your stuff. Can easily tell audience what your book is about. (5 points)
  + Present your book in front of a family member. (5 points)

TOTAL POINTS: 80

POINTS EARNED: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

GRADE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_