**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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_