

**** THIS IS A CLASSROOM COPY****

Please take a picture of your group's topic section and leave this copy here.

Find your groups topic, pick 2 of the options to complete. The ones in italics require more than just your textbook (you might need to use your phone or take it home to research). Use the supplies at the front and back of the room. Large paper, markers, pencils, glue/tape, scissors, etc. Please do not waste supplies. Email questions and any videos that you make to Ms. V: vanosdalk@santarosa.k12.fl.us Please include your group's names in the email.

1) Nervous System:

A) How do nerve cells (neurons) send messages? (pg 923-924) Explain and draw a poster/diagram to demonstrate.

B) Compare and contrast the functions of the central nervous system and the peripheral nervous system. Compare and contrast the responsibilities/functions of the somatic nervous systems and the autonomic nervous systems. (pg 925) Use Venn diagrams, posters, etc.

C) Pick a part of the brain, describe and explain the main functions of that part of the brain. Create a model, poster etc. to show your research.

2) Integumentary System:

A) What are the three related structures of the integumentary? (929) What are their functions and roles? Create a poster, brochure, song or poem to show your research.

B) Draw, label and explain the functions of the layers of the skin. (929) Create a poster/ large diagram or model.

C) Imagine you're a dermatologist, what are some key health concerns for skin? Create a poster that warns about skin cancer and explains the dangers as well as preventative efforts that people should take.

3) Muscular System:

A) Explain how muscles cause movement, on a large scale and a microscopic scale. How do each of the three types of muscles create movement. (928-929) Use diagrams, pictures, etc. Create a poster, or brochure or video to help explain what is happening in muscles on a microscopic scale.

B) Compare and contrast the structure and function of the three muscle tissue types. Where are they found and how are they specialized for their specific functions? Draw pictures, use diagrams etc. Create an informational poster showing your research and comparing the different types of muscles.

C) Imagine you are a personal trainer, research and design a workout plan for someone in your group. How would this work out plan be beneficial to their overall health? How will you track the progress? What kinds of muscle groups will you focus on? Create a brochure, or written plan with clear objectives and explanation of what types of work outs the person will do.

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4) Circulatory System:

A) Explain the three different types of blood vessels, their structures, and functions. How they help to transport oxygen, nutrients and other substances through the body. Create an informational poster or brochure that clearly explains your research. (Use pictures and diagrams please).

B) Explain how the circulatory system is also a part of the endocrine system. Create a poem from the endocrine system to the circulatory system explaining their relationship and demonstrating your research and knowledge.

C) Explain how an artificial pacemaker works and why someone might need one. Create an informational poster with pictures and diagrams or create a brochure that could be given to someone who might need an artificial pacemaker to explain what that's all about.

5) Skeletal System:

A) Explain how the skeletal system helps with support, protection, movement, mineral storage and blood cell formation. (pg 926) Create an informational poster, brochure etc. That explains the many different systems that the skeletal system assists.

B) Explain the main types of joints, their pros or cons, functions and examples. Use diagrams and pictures as well as examples from where in the body that joint is found to create a poster, brochure or diagram. OR, create a song, rap, poem, etc that communicates your research and information- record it.

C) Imagine your friend sprained their ankle. Write a letter with pictures/diagrams explaining what exactly happened to her angle and what the healing process will entail.

D) How does living in zero gravity affect your skeletal system (Think astronauts living in the space station). Create a poster that informs future astronauts what might happen, explain why and what kind of preventative measures can/have been taken to help them. You can also create a script and then make a news broadcast (record it on your phone and email it to Ms. V), about the dangers and impacts of zero gravity on your skeleton. Don't forget to include how scientists work to mitigate the potential damage to their skeletal system.

6) Respiratory System:

A) Explain how the respiratory system is also a part of the circulatory system and the excretory system. List and explain the interdependence of these systems. Summarize your findings on a poster.

B) Explain how breathing works, from what muscles are involved, to what parts of the brain control it. Draw some diagrams, create an informative poster, or record a video and email the final video product to Ms. V

C) How does asthma affect the respiratory tract. Create a poster or a brochure that explains how asthma affects the respiratory system. Be sure to include symptoms, diagrams/pictures and possible treatments and why those treatments work.

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7) Digestive (and Excretory) Systems:

A) Explain the importance of surface area in the small intestines. How are nutrients absorbed? Create a poster advocating for intestinal health and explaining its importance.

B) Explain how the skin, liver, lungs, and kidneys are all a part of the excretory system. Explain their functions and importance. Create posters or an informative brochure that explains how they help the body.

C) Imagine you are a nutritionist, choose 2-3 different diets to compare and contrast. What are the pros/cons of the diets? Who would you recommend those diets to (What is the target group for that diet)? Create a handout, brochure etc. that helps to explain the benefits or hazards of the diets you researched. Or create a video clearly explaining your research, email your finished product to Ms. V

D) How does the body digest carbs, proteins and lipids? Create a poster or use diagrams and pictures to explain where, when, and how each of those macromolecules are broken down in the body.

8) Endocrine System:

A) Explain 2-3 ways that the endocrine system controls and maintains homeostasis. Use diagrams, pictures etc. On a poster to clearly explain your research.

B) How do steroid hormones work? How do non-steroid hormones work? Compare and contrast them. How does the endocrine system depend on the circulatory system? (pg 930-931) Use diagrams, pictures, a poster, brochure etc. To display your research.

C) Why is the pituitary gland called the master gland? What does it control? How does it control things? Use a poster or a brochure to explain your research. Include diagrams and/or pictures.

D) Pick a non-cancer related disease of the endocrine system. Explain the problem it causes, the symptoms of the disease, and what the treatments are. Create a poster that explains your research, or record a video that clearly explains your research and email your finished video to Ms. V