



Student Activity Guide

Activity #1: The Human Body - Miracle Machine!

Activity Overview

Taking the findings of the teams from Lesson 1, students draw a human body and collaborate to place and label organs. Students discuss how the structures and systems work together.

To create a model of a human body, students will work together to:

- Trace a body onto bulletin board paper
- Draw an outline of the skeleton on the paper
- Draw a basic skeletal system and central nervous system
- Draw, label, cut, and place the organs
- Record information about the structure and function of each organ beneath the organ flaps

Content Areas

Life Sciences and Health Education

Activity Duration

45 minutes

Objectives

Students will:

- Illustrate the skeleton, organs, and the nervous system
- Explain the role of each organ



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Materials

- Model Body Activity Directions (one per group)
- Rolls of butcher block paper, bulletin board paper, newsprint, or other sheets large enough to trace students' bodies
- Markers, colored pencils, crayons, or pencils
- Construction paper
- Scissors
- Clear tape

Procedure

1. Begin by explaining to students that they will be using what they learned in Lesson 1 to create a model of the human body. In order to do that, each group will need an "expert" on each organ or set of organs. (Instructional Option: If you have a small group of students, consider dividing the class in half to create two skeletons or doing this activity in a whole groups.)
2. Regroup students so that each group has an expert on each organ or set of organs. (Each student should have a different Body Investigation Sheet.)
3. Distribute large sheets of paper, construction paper, scissors, coloring tools, and clear tape. Next, distribute the instructions and go over them with students, answering their questions and clearing up misconceptions as you go. Model for students how they will tape the top of their organs to the skeleton with clear tape. Show students how the organ should be able to flip up from the bottom so that others can read the description on the back.
4. Allow 30-35 minutes for students to work together. Circulate around the room to help and offer suggestions as needed.
5. Once finished, have each team hang or otherwise display their bodies. Allow students to view each other's work.



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Instructional Options

- Using transparencies or clear sheet protectors with a human body outline, each group places one of the organs or systems to overlay on the other to create a whole body.
- Create a 3-dimensional “robot” skeleton out of donated and recycled parts, scraps, paper towel rolls, and recycled bottles or cans. The skeletal frame could be supported on an easel, a step ladder or other stand. Nervous system could be made from plastic straws or dowels. Organs and brain could be modeled from Play-Doh, Sculpey or air-dry clay to fit inside the body.
- Using straw, hay, or bailed-up newspapers, students could make a scarecrow. Again, the organs and nervous system could be made out of clay, or drawn as in the original approach and hung on the outside of the scarecrow’s body.

Optional Extension

Have students repeat the activity at home with their family on a smaller scale. Ask students to report on how their families reacted when they shared what they have learned about the human body. What questions did they ask? Did they share any new information?

References

“The Human Body: Anatomy Facts and Functions, Live Science” <http://www.livescience.com/37009-human-body.html>



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Model Body Activity Directions

Use your Body Investigation Sheets from Lesson #1 to help you complete this activity

Create Your Body Outline!

1. Once you are with your group, reread these directions from start to finish!
2. One person lie down on the paper. Make sure the body is entirely on the paper.
3. One person trace around the body. Be careful not to miss any part of the outline.

Create Your Skeleton!

4. The skeleton expert should now draw the skeleton onto the body outline. Make sure you use pencil so you can erase mistakes (we all make them!).
5. Once it is finished, trace over it in marker or crayon so it is easier to see. Your teammates can help you!

Create Your Central Nervous System!

6. The brain and nervous system expert should now draw lines to represent the nerves that travel from the brain throughout the body. (You will add the brain later.)
7. You do not have to include all nerves – just a few to show how they are connected to the brain from every part of the body.
8. Once it is finished, trace over it in marker or crayon so it is easier to see. Your teammates can help you!



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Create Your Organs!

9. While the skeleton and nervous system folks are working, the organ experts will create the organs that will be placed on your body.
10. Using regular paper or construction paper, draw each organ of the body and cut it out. Remember to use your Body Investigations Sheet to help you.
11. Color and label the front of the organ. Make sure it is easy to read your label.
12. On the back of the organ, write what it does. When you attach your organs to your body, you will use clear tape so that others can flip up the organ to read what it does. Try to make sure your description will not be upside-down!

Create Your Body!

13. Attach all of your organs to your body (where they belong!). Make sure you are only taping the top of each organ with clear tape.
14. When you are finished, display your body so your classmates may view it. Isn't the human body a complex and wonderful system?