

Pasta Skeletal System

How many different bones of your skeletal system can you model?

MATERIALS



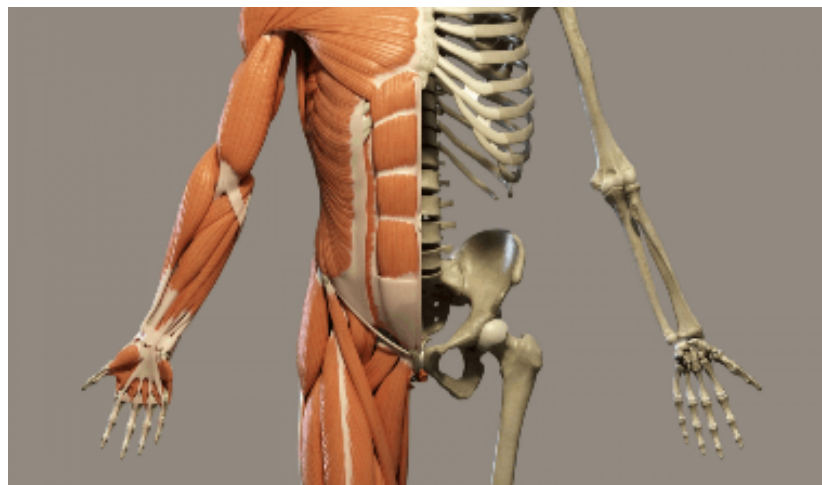
- ❖ Black Construction Paper
- ❖ Glue
- ❖ Elbow Pasta
- ❖ Penne Pasta
- ❖ Linguine Pasta
- ❖ Farfalle Pasta
- ❖ Rigatoni Pasta
- ❖ Skeletal System Diagram
- ❖ White Crayons

Do the Experiment!

1. Think about your body and how it protects your organs. Take a moment to write what you think the skeletal system's main purpose is.
2. On a piece of black construction paper glue a piece of rigatoni to your paper, this will model the skull or cranium in your skeletal system.
3. Break some linguini into small pieces and use those as the vertebrae for your neck and spine and use the elbow pasta for the ribs.
4. Now you will create the bones found in the arm. Use a longer piece of linguini to model the humerus bone and two smaller pieces to model the ulna and radius. Create fingers or phalanges using even smaller pieces of pasta.
5. Use a piece of farfalle pasta to model the hips or pelvic region.
6. Model the bones in the leg using a piece of penne for the femur and two smaller pieces for the tibia and fibula.
7. Use small pieces of linguini to model the phalanges and other bones in the feet.
8. Once you have glued all the bones to your skeletal system model use the white crayons and label your diagram.

DID YOU KNOW...

At birth human beings are born with around 300 bones in their skeletal systems but as we grow many of these bones fuse together. By adulthood the average human skeleton will have 206 bones that will continue to grow until they reach their mid twenties and max out on density around the age of 30. When our bones are broken they will try and repair themselves naturally—a doctor's splint only aids in the direction the bones grow, but our bodies do most of the work repairing them on its own. The smallest bone in the body is found in the middle ear and is called the staples or stirrup bone. It is only 2.8 millimeters long. The largest bone in the human body is the femur and averages 48 centimeters long. Because we walk, play sports, bend over and sit, we constantly put stress on our bones. This causes our bones to wear down. Not to worry though, our skeletal system is very efficient and constantly repairs itself. The primary function of the skeletal system is to protect the soft tissue organs situated within the body. It is the last line of defense as most muscles lie on top of the skeleton.



CHALLENGE

1. Draw a diagram of as many bones of the skeletal system that you can remember.
2. Can you list some of the other bones of the skeleton system that you did not model today?
3. What are the differences between the male and female skeleton? Why do you think they are different?

STEAM Challenge: The femur is not just the longest bone in the body but also the strongest, capable of supporting up to 30 times the person's weight. If a person weighs 70 pounds, how much weight could their femur support? If a person weighs 112 pounds how much weight could the femur hold?