

Dear Family,

Our class is going to experience the Project Lead The Way module, *Structure and Function: Human Body*. In this module, students are read a story about Angelina's experience of falling and breaking her arm. Students explore the basic relationship between structure and function in the human body. They identify major structures, or organs, within the body and investigate the relationships of the structure and function of each organ, as well as identify the functions of bone.

Then, they act as scientists to perform an inquiry investigation to explore how the structure of the fingers impacts their function. They assemble a skeleton and create a model X-ray of a hand. Students exemplify their work through an engineering design process to design and build a cast for Angelina.

Thank you for your support in your child's learning. For more information about Project Lead The Way, please visit www.pltw.org.

Sincerely,

Maryann Slavinsky

Dealing with Misconceptions

Throughout the Structure and Function: Human Body module, students may exhibit some common misconceptions. Understanding these misconceptions will help you address them if they occur at home.

Misconception	Reality
The human heart lies at the left side of the chest.	The heart is centrally located behind the breastbone. Clench your fist to replicate the size of your heart.
The human heart is “heart” shaped.	The heart is the shape of an asymmetrical pointed oval.
Air is just breathed in and out, without serving a physiological function.	Air changes composition during the respiratory process. The respiratory system acts as an absorber of oxygen and a remover of carbon dioxide and water. These changes occur deep within the lungs.
We breathe in oxygen and breathe out carbon dioxide.	Exhaled air only contains approximately 4 percent carbon dioxide. Inhaled air contains 0.04 percent carbon dioxide. Both inhaled and exhaled air is mostly made of nitrogen—78 percent nitrogen.
The stomach is located around the navel area.	The stomach is located at the level of the ribs on the left side of the body and is much smaller than people generally realize.

Reference

Allen, M. (2014). *Misconceptions in primary science*. New York, NY: Open University Press.