

Anatomy and Physiology

Instructor Katie Burns
Email Katie@FullSTEAMclasses.com
Phone 530.575.1789

**Anatomy and Physiology
Course Syllabus**
Fall 2017
Wednesday @ 9:00-10:00

Class Cost: \$130

Course Purpose and Description

This course introduces students to the world of Human Anatomy and Physiology. Students will explore the human body's intricate systems including the respiratory, circulatory, nervous, skeletal, and integumentary. Students will also explore their own senses and learn how to keep their bodies healthy through good nutrition. Hands-on projects and experiments will help them understand the processes of the body, to remember scientific terminology, and to see how fun science can be.

Class Materials

- This class follows the sequence of Apologia's Anatomy & Physiology text, making it a great companion for students using the textbook at home. The textbook is not required and no sectarian material will be covered in class.
- Each student will need a binder to hold worksheets and lab reports. The binder can be shared with other subjects.
- Schoology will be used as our assignment management system. Sign your student up with an account on Schoology.com and join the A&P class with this code: JPZNJ-Z29JV

Class Expectations

The student will be responsible for completing approximately 1-2 hours of assignments outside of class each week including online games and readings. In each class, the opportunities for learning will consist of discussions, hands-on experiments, games, and activities. Every week there will be an additional assignment that parents can find on Schoology.

Grading

There will be no grades given for this class although labs and activities will be evaluated with the student in order to encourage responsibility and to prepare them for a more vigorous science course.

Anatomy and Physiology

Fall 17 Tentative Schedule

Week	Topics	Project or Experiment
1	Welcome, Introduction to Anatomy and Physiology	<ul style="list-style-type: none"> • History of Anatomy and Physiology
2	Cells and their Anatomy Mitochondria and Lysosomes	<ul style="list-style-type: none"> • Pick a Scientist to research • Present Scientist
3	Cells and their Anatomy The ER and The Golgi Apparatus	<ul style="list-style-type: none"> • Edible cells
4	Cells and their Anatomy The Nucleus- DNA and RNA Replication	<ul style="list-style-type: none"> • DNA models • Microscope Work
5	The Skeletal System: Bone Marrow, Growing bones, Ligaments and Joints	<ul style="list-style-type: none"> • Rubber Bones experiment start • Name the Joints • Bones Game
6	The Muscular System: Skeletal Muscles and Cells	<ul style="list-style-type: none"> • Rubber Bones experiment end • Muscle Observation
7	The Muscular System: How muscles use protein, Cardiac Muscles, Smooth Muscles	<ul style="list-style-type: none"> • Get Moving Game • First Aid Demonstration
8	The Digestive System: From beginning to end: Teeth, Saliva, Tongue, Stomach, Intestines, Liver, Pancreas	<ul style="list-style-type: none"> • Cracker Chew • Hydrochloric Acid • Measure out your Intestines
9	Health and Nutrition: Water facts Macro Nutrients- Energy= Carbs, Protein, & Fats	<ul style="list-style-type: none"> • Eating and Exercise Tracker • Building Proteins
10	Health and Nutrition: Calories and Micro Nutrients- Vitamins A, C, D, K and some B Vitamins, Minerals	<ul style="list-style-type: none"> • Results of Exercise Tracker • Vitamin C
11	The Respiratory System: Breath in- Nose, Ears and Mouth. Bronchial Tubes, Lungs and Alveoli	<ul style="list-style-type: none"> • Rubber band Voice Box • See what you breath • Respiratory Diagram Worksheet
12	The Respiratory System: Asthma and other respiratory issues.	<ul style="list-style-type: none"> • Model Lung • Model Diaphragm
13	The Life of Blood: Arteries & Capillaries Red and White Blood Cells	<ul style="list-style-type: none"> • Model Heart • Heart Diagram Worksheet
14	The Life of Blood: Blood Types First Aid Wound Care	<ul style="list-style-type: none"> • Blood sample model • Make a Stethoscope • First Aid Demonstrations and practice
15	Review & Celebration	