Physiology Main Lesson

Day 1- Introduction to Physiology

Materials: My pyramid chart and record for each student

Examples of the 5 basic food groups

**Healthy snack for class (recipe)

Roll of 6’ butcher paper for each student

“All the World’s a Stage”

1. Ask what they have done today? Of those things what could they have done without the movement/involvement of their bodies?
2. In the past we have talked about the gifts of the animal, plant and mineral world….what are the gifts of humankind-to the earth (other kingdoms), to each other.
3. What is physiology? Why important…our bodies are our vehicles to our dreams, as we become more independent, we need to understand how it functions and how care for it.
4. Comparison of the human body and its systems to that of a plant.
5. Why is eating necessary- how do we use the food we eat? (fuel and material to build, repair our bodies)
6. Types of nutritional foods:
   a. grains (name some)
   b. vegetables (name)
   c. fruits (name)
   d. milk (types)
   e. meat and beans
7. Introduce “My Pyramid”- how to use it as a guideline
   a. assign daily nutrition chart/how to use it, when due

Activity: pair off- draw each other’s outline on 6’ paper

Main lesson work: Vitruvian Man by Da Vinci
Day 2- Nutrition (continued)

Materials: bottle of multiple vitamins
Conditioning tools
"Jack Pretluzky poems"
Items for "See Vitamin C" pg. 20

Looking at the Body
1. What are Minerals and what nutritional role do they play?
2. Vitamins " (refer to bottle of vitamins)
3. Carbohydrates "
4. Fats (solid and liquid) "
5. Sugars "
6. Fiber "
7. What role does exercise play in keeping us healthy? (tones muscles, moves oxygen through, keeps joints smooth, sleep well, burns fat….allows us to stay fit, ready to achieve our goals)

Activity: hand out various conditioning tools and ask them to pay attention to which part of their body is being exercised- feel it

Activity: do "See vitamin C" experiment

Main Lesson work: drawing of plant/human comparison
Day 3  The mouth (The first part of the digestive system)

Magnifying glasses (7 or 14)
Lemons, sugar, salt, bitters (?)
Blind folds
Magnified mirrors
14 pieces of dried fruit

1. What is the digestive process?
2. When does it begin? (When you first get the thought, brain sends a message to your mouth)
3. Parts of the mouth and their roles (in digestion)
   a. Role of saliva (enzymes begin to digest food)
   b. Palate (press against)
   c. Tongue (taste buds, warning- temperature, spicy)

Activity: with magnifying glass look at neighbor’s tongue- notice “taste buds” Then blindfold students and have them taste lemon on “sugar” part of tongue. Then with blindfolds off, try other tastes on different tongue areas. Discuss the 4 areas for “taste” bitter, salty, sweet, sour

   d. Teeth (masticate food, tear food)

Activity: eat dried fruit- pay attention to role of teeth

4. discuss names of different types of teeth
5. go over diagram of the tooth
6. Why is it important to care for your teeth?

Main Lesson work: “nutrition poster of the 5 food groups”
Day 4 The second part of the digestive system

Materials:
Cubes of bread (14)

1. Chew the cubes of bread and notice what becomes of it...how does it change? At what point do you lose the ability to feel it in your body?
2. Discuss role of esophagus
3. role of stomach (acid (burp), replacement of stomach lining)
4. appendix (once a second stomach, no longer needed since we now cook our meat, etc.)
5. role of pancreas (produces bile, which is used...)
6. role of liver (besides skin, only major organ that grows back)
7. role of gall bladder (bile storage)

Main Lesson work: diagram of mouth, tongue tasting areas and tooth
Day 5 The third part of the digestive system—elimination

Materials:
26’ rope under shirt
construction paper
6’ sheets of butcher paper for each student
glue

1. Role of small intestines
2. Role of large intestines/rectum
3. Role of kidneys
4. Role of bladder/urethra

Main Lesson work: Diagram of digestive system

In creative writing class—assign groups to write poems about the various parts of the digestive system (small intestines, large intestines, pancreas and gall bladder, liver, esophagus, mouth, stomach) Read a few poems as examples

Test review: cut out parts of the digestive system (correct shape and close to actual size) from construction paper then glue in appropriate place on 6’ outline of themselves, label and describe function in parenthesis
Day 6- Circulatory System- The Heart  
*Materials:*  
  * Stethoscopes  
  * 14 funnels  
  * 7 24” aquarium tubing  
*Main Lesson book work: diagram of the heart*

Day 7- Circulatory System- The blood/vascular system  
*Materials:*  
  * Blood pressure cuffs*

Day 8- Respiratory System- The lungs  
  * Test on Cardio/pulmonary system*  
*Materials:*  
  * Breath o meter  
  * Construction paper  
  * 6’ paper with digestive system on it  
  * red and blue yarn  
  * glue*  
  
*Activity: place heart and veins on life size drawing*  
*Main Lesson book work: diagram of the lungs*

Day 9- Introduction to the Reproductive System  
(Guests with babies)

Day 10- Male Reproductive System  
*Main lesson book work: begin essay on Reproductive system*

Day 11- Female Reproductive System
Day 12- Gestation

Day 13- The Endocrine System

Day 14-

Day 15- Test on Reproductive system