Science 21 Resource Package

BIOLOGY: Human Body Systems

Suggested Lessons and Activities

Course Outline

The course will consist of three units selected from the following four units of study:

1. Biology (Human Body Systems)
2. Chemistry (Our Liquid World – A Focus on Water)
3. Physics (Waves and Optics in Everyday Life)
4. A unit of study determined by local interest and selected by the teacher and the student.

The teacher may use the three units selected from this course, or any two of these units as well as a locally determined unit of study. Each unit consists of a series of suggested lessons that are designed to meet the foundational objectives for the unit. Each lesson contains the learning objectives covered in the lesson, an overview of the lesson, a list of instructional documents that are included within the unit, and a list of supporting resources. The supporting resources may include reading materials to support the lesson or additional lesson ideas and activities that meet the objectives that are outlined for the lesson.

The units within this course outline are not intended as a complete Science 21 course. Teachers should integrate some of the suggested lessons within their own unit plans and modify the suggested lessons to meet the diverse needs of their students. Some of the objectives are addressed in more than one of the suggested lessons within a unit; therefore, not all of the suggested lessons need to be used. Teachers may request an electronic version of this course outline from their school division office so that they can modify the instructional documents to meet diverse needs.

Introduction

In this unit, students learn basic information about the human body. The unit begins with a look at how the body is organized, and then moves into a study of specific body systems. Many activities, labs and projects have been included for each body system. The goal is to enhance students' interest in and understanding of how their bodies work. It is hoped that this will move the focus away from the memorization of definitions and facts and toward a deeper appreciation of the complexity of human life.

NAME _____

DATE _____

④ BIGGER PICTURE

SCIENCE 21

② LAST UNIT

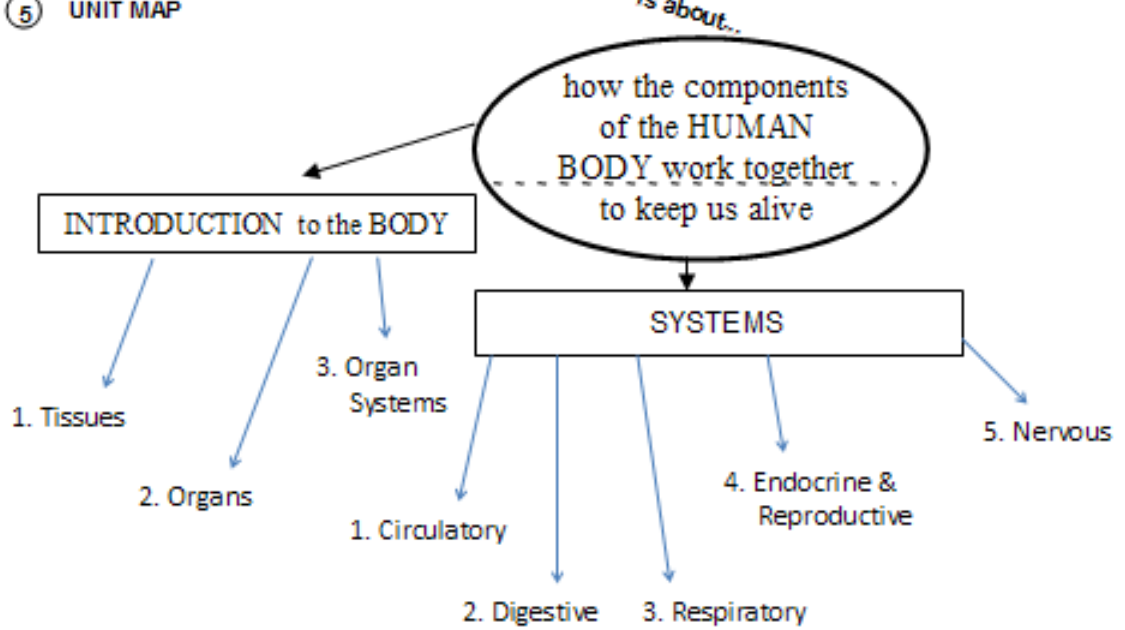
① CURRENT UNIT
HUMAN BODY SYSTEMS

③ NEXT UNIT Experience

⑧ Student Activities or Assignments

1. **INTRO to the BODY**
   - vocab, reading & Qs, activity, quiz
2. **CIRCULATORY**
   - vocab, reading & Qs, activity, dissection, research assign.
3. **DIGESTIVE**
   - vocab, reading & Qs, lab, movie review, research assign., field trip, research project
4. **RESPIRATORY**
   - brainstorm, vocab, reading & Qs, lab, online research
5. **ENDOCRINE & REPRODUCTIVE**
   - online research, discussion, reading & Qs, dissection
6. **NERVOUS**
   - mapping, vocab, reading & Q, labs, project

⑤ UNIT MAP



⑦ UNIT SELF-TEST QUESTIONS

1. What is a cell, tissue, organ & organ system?
2. Name & describe the different kinds of tissues in the body.
3. What are the 3 kinds of blood vessels and how do they work?
4. What is blood and what is it made up of?
5. What is a normal blood pressure reading and what factors can affect blood pressure?
6. Label the main parts of the human heart.
7. Trace the pathway of blood through the human heart, naming key structures along the way.
8. What are the main parts of the digestive system? How do they function?
9. What organic compounds are found in food and why are they important to one's diet?
10. Where are the major endocrine organs in the body and what do they do?
11. Label male and female reproductive parts & describe their functioning.
12. What happens during the female menstrual cycle?
13. What events lead up to the birth of a human?
14. What are some of the similarities between a chicken egg and a developing human?
15. What is the pathway of air through the human respiratory system? What do the structures along the way do?
16. What are the main components of the human nervous system?
17. What is a reflex? How is it different from an instinct?

Biology: Human Body Systems - Table of Contents

TOTAL APPROXIMATE TIME FOR UNIT → 40 hours

Foundational Objectives:

- Identify the main components of the following human body systems: Circulatory, Digestion, Respiration, Endocrine and Reproductive, and Nervous.
- Perform laboratory activities to investigate characteristic of various human body systems.
- Collect and interpret data related to human body systems.

Introductory Lesson - The Organization of the Human Body

Learning Objectives:

- Differentiate between cells, tissues, organs, and body systems in humans.
- Provide examples and describe the function of the four types of tissue found in humans.
- Identify the location and function of major organs in the human body.

Lesson Overview:

In this lesson, students are introduced to the basic building blocks of the human body – tissues, organs and organ systems. Students also learn the main features of some of the major body systems and research one of those systems in more detail for an interactive group activity.

Suggested Timeline: 4 hours

Instructional Document(s):

- Human Body Systems – Unit Organizer
- The Organization of the Human Body (Student Handout)
- Body Bag (Student Handout – Group)
- Body Bag (Student Handout – Individual)
- The Organization of the Human Body Quiz (Student Handout)

Supporting Resources:

1. Lesson 1 – What are Tissues and Organs?, pp.2-6 *Biology Science Workshop Series*

2. How Your Body is Organized, pp.8-12 *Addison Wesley Science and Technology 8*

Lesson 1.1 – An Introduction to the Circulatory System

Learning Objectives:

- Use terminology related to the circulatory system: blood vessel, arteries, veins, capillaries, blood, plasma, white blood cells, red blood cells, and platelets.
- Understand the function and form of the main components of the human circulatory system, including the role of blood.

Lesson Overview:

In this lesson, students will be introduced to the components of the circulatory system thorough a reading package with probing questions throughout. Students will also learn about the importance of blood in the body and its constituents.

Suggested Timeline: 1.5 hours

Instructional Document(s):

- An Overview of the Circulatory System (Student Handout).
- QUIZ – An Overview of Circulation (Student Handout)

Supporting Resources:

1. The Circulatory System, pp.71-76 *Ready-to-Use Human Biology and Health Activities for Grades 5-12*

2. http://pennhealth.com/health-info/animationplayer

3. What is the Circulatory System? What is Blood Made Of? , pp.70-80 *Biology Science Workshop Series*

Lesson 1.2 – Coronary Emergencies

Learning Objectives:

- Explain how to make a 911 call.
- Appreciate the importance of CPR and an AED.

Lesson Overview:

Students will learn about the procedures involved with coronary emergencies thorough a presentation by a medical expert or thorough an individualized online investigation.

Suggested Timeline: 1 hour

Instructional Document(s):

- Coronary Emergencies (Student Handout – Individual)
- Coronary Emergencies (Teacher Support Material)

Supporting Resources:

1. http://www.cpsp.gov.sk.ca/How-9-1-1-Works - Government of Saskatchewan information on 9-1-1 calls

2. http://www.heartandstroke.sk.ca/site/c.inKMILNlEmG/b.3657463/#heartdisease – Heart and Stroke Foundation statistics on cardiovascular disease

3. http://www.heartandstroke.com/site/c.ikIQLcMWJtE/b.3483921/ - Heart and Stroke Foundation information on CPR

4. http://www.firstaidtopics.com/saskatchewan-first-aid-training/ - Saskatchewan locations for First Aid and CPR Training Opportunities

5. http://www.heartandstroke.com/site/c.ikIQLcMWJtE/b.3484045/ - Heart and Stroke Foundation Information in AEDs

Lesson 1.3 – Assessing Your Circulatory System

Learning Objectives:

- Explain the significance of blood pressure and heart rate.
- Determine your heart rate at rest and after exercise.
- Use a sphygmomanometer to measure blood pressure.
- Use terminology related to the circulatory system: blood pulse, radial pulse, carotid pulse, blood pressure, sphygmomanometer, systolic pressure, and diastolic pressure.

Lesson Overview:

In a laboratory activity, students will have the opportunity to take their pulse and blood pressure and learn how these factors are affected by exercise.

Suggested Timeline: 1 hour

Instructional Document(s):

- Assessing the Circulatory System (Student Handout)

Supporting Resources:

1. The Human Heart Rate, pp.151-156 *Addison Wesley Biology – A Systems Approach - Laboratory Manual*

2. Investigating Pulse Rate, pp. 77-80 *Prentice Hall Biology - The Study of Life Laboratory Manual*

Lesson 1.4 – A Closer Look at the Heart

Learning Objectives:

- Describe the path that blood takes as it moves through the heart.
- Identify the components and function of the heart: atria, ventricles, arteries, veins, valves, and septum.
- Develop skills in performing a real or virtual dissection.

Lesson Overview:

In this lesson, students more closely examine the workings of the heart thorough a reading and question package. By dissecting a mammalian heart, students are able to find the parts that they have learned about and trace the pathway of blood thorough the heart.

Suggested Timeline: 2 hours

Instructional Document(s):

- How Does Your Heart Work? (Student Handout)
- Heart Dissection (Student Handout)
- Virtual Heart Investigation (Student Handout)

Supporting Resources:

1. How Does Your Heart Work?, pp. 82-88 *Biology Science Workshop Series*

2. The Mammalian Heart, p. 190, *Prentice Hall Biology – The Study of Life*

3. http://www.gwc.maricopa.edu/class/bio202/cyberheart/anthourt.htm - sheep heart dissection

Lesson 1.5 – Technologies of the Heart

Learning Objectives:

- Identify historical or current technologies used to solve heart problems.
- Demonstrate ability to access information from a variety of resources.
- Share the results of their research by developing displays, exhibits, performances, presentations, demonstrations, lectures, or other appropriate methods.
- Share the results of their research project with other students, teachers, parents, or members of the community.

Lesson Overview:

Students will research a technology used in cardiology and present their findings in the form of an oral presentation or classroom display.

Suggested Timeline: 3 hours research and preparation time + presentation time (if applicable)

Instructional Document(s):

- Technologies of the Heart (Student Handout – Individual)
- Technologies of the Heart (Student Handout – Group)

Supporting Resources:

1. Your Choices in Heart Scans, pp. 38-39 *Time* (Sept. 5, 2005)

2. www.pbs.org/wgbh/nova/eheart/transplantwave.html - online heart transplant activity

3. http://www.columbiasurgery.org/pat/lvad/heart_anatomy.html - online animations on types of heart imaging tools

Lesson 2.1 – An Introduction to Digestion

Learning Objectives:

- Identify and understand the function of each component of the digestive system.
- Describe the process of digestion.
- Reflect upon how knowledge is created, refined and applied in biology.

Lesson Overview:

In this lesson, students learn about the main parts of the digestive system thorough a reading assignment. Students then access a website to view the digestive system components and learn more about their functioning.

Suggested Timeline: 1.5 hours

Instructional Document(s):

- An Introduction to Digestion (Student Handout)
- QUIZ – An Introduction to Digestion (Student Handout)

Supporting Resources:

1. p. 629 *Heath Biology*

2. p. 393 *BSCS Biology*

3. Nutrition and the Digestive System, pp. 43-46 *Human Biology and Health Activities*

4. How is Food Digested?, pp.52-56 *Biology Science Workshop Series*

5. How Do Enzymes Help Digestion?, pp. 58-62 *Biology Science Workshop Series*

6. What is Absorption?, pp. 66-68 *Biology Science Workshop Series*

7. http://www.pennhealth.com/health_info/animationplayer/digestion.html - online digestive system animation

Lesson 2.2 – Carbohydrates, Lipids and Proteins

Learning Objectives:

- Compare the digestion of carbohydrates, lipids, and proteins.
- Use terminology related to the digestion of carbohydrates, lipids, and proteins: carbohydrate, organic compound, monosaccharide, dissacharide, polysaccharide, starch, glycogen, lipids, saturated, unsaturated, polyunsaturated, fats, oils, protein, amino acid, dipeptide, and polypeptide.

Lesson Overview:

In this lesson, students learn about the main groups of organic compounds found in food – carbohydrates, lipids and proteins. Students then research what food sources in their diet can provide them with each type of compound and why each compound is important to their body. Students are encouraged to include ethnic foods as examples and to consider which types of foods come with a lower environmental impact.

Suggested Timeline: 1 hour

Instructional Document(s):

- Carbohydrates, Lipids and Proteins (Student Handout)

Supporting Resources:

1. Carbohydrates, Lipids and Proteins, pp. 8-12 *Biology Coloring Workbook*

2. The Building Blocks of Life, pp. 166-171 *Glencoe Science Biology*

Lesson 2.3 – Measuring Food Energy

Learning Objectives:

- Investigate the heat content of particular foods
- Gain proficiency in manipulating laboratory equipment.
- Collect and interpret data.
- Express physical quantities using appropriate units, converting when necessary.
- Calculate the heat content of particular foods using **$Q = mc\Delta T$.**

Lesson Overview:

In this laboratory activity, students will learn to measure calories in food by burning the food and completing calculations.

Suggested Timeline: 1 hour

Instructional Document(s):

- Measurement of Food Energy Lab (Student Handout)

Supporting Resources:

1. The Process of Nutrition, pp. 149-154 *Prentice Hall Biology: The Study of Life*

2. Measuring Energy in Foods, pp. 71-75 *Prentice Hall Biology: The Study of Life Laboratory Manual*

3. http://www.accessexcellence.org/AE/ATG/data/released/0335-HeidiHaugen/ - organic compounds lab

Lesson 2.4 – Calorie Counting

Learning Objectives:

- Identify the amount of food energy contained in various foods.
- Realize the effect that food choices can have on a person's health (body weight, body fat, blood pressure, and liver).
- Interpret quantitative information from various sources.

Lesson Overview:

Thorough research, students will learn about the caloric content of common foods and fast foods. Students will also have an opportunity learn about the effects of fast food on the body by watching the video *Super Size Me*.

Suggested Timeline: 2 hours

Instructional Document(s):

- Calorie Counter (Student Handout)
- Fast Food Calories (Student Handout)
- *Super Size Me* Video Viewing Guide (Student Handout)

Supporting Resources:

1. http://www.foodfacts.info/ - fast food calorie information

2. http://www.NewYorkScienceTeacher.com/movies - *Super Size Me* video worksheet

Lesson 2.5 – How Many Calories Do I Burn?

Learning Objectives:

- Realize the effect of various physical activities on a person's health (body weight, body fat, blood pressure, and liver).
- Determine food energy in personal meals.
- Demonstrate ability to access information from a variety of resources.

Lesson Overview:

Using internet resources, students find the number of calories burned during various activities, learn about their metabolism and investigate options for burning calories. After a class outing to a restaurant, students then have the opportunity to consider the approximate number of calories they consume.

Suggested Timeline: 1 hour

Instructional Document(s):

- Calorie Calculations (Student Handout)
- Calories in My Meal (Student Handout)
- Sample Field Trip Form (Teacher Support Material)

Supporting Resources:

The following websites provide information on calories burned while performing various activities.

1. http://www.primusweb.com/fitnesspartner/jumpsite/calculat.htm

2. http://www.nutristrategy.com/activitylist.htm

3. http://www.coolnurse.com/calories_burned.htm

The following websites allow for calculations of metabolic rates and recommended caloric intake given activity level.

1. http://www.everything2.com/index.pl?node=calorie

2. http://www.caloriesperhour.com/index_burn.html

Lesson 2.6 – Disorders of the Digestive System

Learning Objectives:

- Identify common digestive system disorders.
- Create a presentation on a digestive system disorder.
- Explore issues or topics which address personal interests and concerns related to body systems.

Lesson Overview:

In this lesson, students research one digestive system disorder, prepare a handout on the disorder and present their information to the class. Alternatively, students present their information on a poster to be displayed in the classroom.

Suggested Timeline: 3 hours research time + presentation time (if applicable)

Instructional Document(s):

- Digestive Disorders (Student Handout – Individual)
- Digestive Disorders (Student Handout - Group)

Supporting Resources:

1. http://pennhealth.com/health_info/animationplayer/digestion.html - list of digestive system disorders

Lesson 3.1 – An Introduction to Respiration

Learning Objectives:

- Use terminology related to the components of respiration: respiration, breathing, diaphragm, trachea, bronchi, and alveoli.
- Differentiate between breathing and respiration.
- Explain how the process of breathing occurs.
- Describe the pathway that the air takes as you inhale and exhale.

Lesson Overview:

In this introductory lesson, students reflect on their experiences of a respiratory illness or episode. Students also have an opportunity to share what they already know about their respiratory system and what they are interested in learning. Students then work on an introductory vocabulary, reading and question package on the respiratory system.

Suggested Timeline: 1.5 hours

Instructional Document(s):

- Reflections on the Respiratory System (Student Handout)
- An Introduction to Respiration (Student Handout)
- QUIZ – An Introduction to Respiration (Student Handout)

Supporting Resources:

1. Lesson 15 - What is Breathing and Respiration? pp. 90-94 *Biology Science Workshop Series*

2. Lesson 16 – What is the Respiratory System? pp. 96-99 *Biology Science Workshop Series*

3. www.medindia.net/know/ur/body/ressystem.asp - respiratory system facts

4. www.fortunecity.com/campus/leftback/1037/respiratory_system.htm - respiratory system facts

5. The Respiratory System, pp. 85-87 *Human Biology and Health Activities*

Lesson 3.2 – Exploring Your Respiratory System

Learning Objectives:

- Identify the sound of normal and abnormal breath sounds.
- Perform an activity to measure a person's lung capacity.

Lesson Overview:

Students are given the opportunity to listen to what their breath sounds like and compare this sound to internet audio files of normal and abnormal breath sounds. They also measure the amount of air they are able to exhale in a normal breath and after deep inhalation.

Suggested Timeline: 1 hour

Instructional Document(s):

- Exploring Your Respiratory System (Student Handout)

Supporting Resources:

1. Getting Enough Oxygen, *Isis*

Lesson 3.3 – A Close-Up Look at Your Respiratory System

Learning Objectives:

- Investigate the function of various components of the respiratory system: nose, teeth, mucus, cilia, and trachea.
- Locate and select appropriate resources to conduct research.

Lesson Overview:

In this lesson, students have the opportunity to learn more about their respiratory system by examining some of their body parts and using online resources for research.

Suggested Timeline: 1 hour

Instructional Document(s):

- Close-Up Look at Your Respiratory System (Student Handout)

Supporting Resources:

1. www.penhealth.com/health_info/animationplayer/swallowing.html - animation of a person swallowing

2. Respiratory System, pp. 1000-1004 *Glencoe Science Biology*

3. Gas Exchange, pp. 219-235 *Prentice-Hall Biology: The Study of Life*

Lesson 4.1 – An Introduction to the Endocrine System

Learning Objectives:

- Identify the location and function of the components of the endocrine system.
- Differentiate between endocrine glands in males and females.
- Use terminology related to the components of the endocrine system: ovaries, pituitary gland, thyroid gland, thymus gland, hormones, testes, adrenal glands, pancreas, hypothalamus, and parathyroid glands.

Lesson Overview:

Thorough research, students determine the location and function of the major endocrine glands in the male and female body and consider some endocrine system disorders.

Suggested Timeline: 1 hour

Instructional Document(s):

- An Introduction to the Endocrine System (Student Handout)
- QUIZ – The Endocrine System (Student Handout)

Supporting Resources:

1. http://health.howstuffworks.com/adam-200091.htm - endocrine system introductory video

2. The Endocrine System, pp. 89-90 *Modern Biology – Holt, Reinhart and Winston*

3. Endocrine System, pp. 108-109 *The Anatomy Coloring Book*

4. Hormones and the Endocrine System, pp. 127-128 *Human Biology and Health Activities*

Lesson 4.2 – Human Reproduction

Learning Objectives:

- Identify the location and function of male and female reproductive organs.
- Explain how male and female reproductive systems change during puberty.
- Use terminology related to the male reproductive organs: testes or testicles, scrotum, vas deferens, prostate, urethra, penis, semen, seminal vesicles.
- Use terminology related to the female reproductive organs: endometrium, uterus, ovary, vagina, menstruation, fallopian tube, hymen, and cervix.
- Describe the female's menstruation cycle, fertilization, and pregnancy.
- Explain the process of conception in humans.

Lesson Overview:

Students consider facts and fallacies about reproduction and, in a group setting, discuss changes that occur during puberty. Students then learn about male and female anatomy, the menstrual cycle and fetal development and birth.

Suggested Timeline: 2.5 hours

Instructional Document(s):

- Human Reproduction – Fact or Fable? (Student Handout)
- Introducing Terry (Student Handout – Group)
- Reproduction in Males and Females (Student Handout)
- QUIZ – Human Reproduction (Student Handout)

Supporting Resources:

1. Male and Female Reproductive Systems, p.109 *Anatomy Coloring Book*

2. Reproduction and Development, p. 141-143 *Human Biology and Health Activities*

3. Reproduction, pp. 7-14, 28-40 *Tambrands Guide to Puberty and Menstrual Health*

Lesson 4.3 – Development of the Embryo

Learning Objectives:

- Investigate the stages in the development of an embryo.
- Compare the development of animal and human embryos.
- Use terminology related to the development of an embryo: yolk, blastodisc, vitelline membrane, albumen, chalaza, air space, somite, amnion, allantois, shell, chorion, and neural tube.

Lesson Overview:

Students observe a chicken egg at three stages of development, consider the function of the extra embryonic membranes and compare the anatomy of a chicken egg to the embryo of a human.

Suggested Timeline: 1.5 hours

Instructional Document(s):

- Investigating the Development of the Embryo – Using Fertilized Chicken Eggs (Student Handout)
- Investigating the Development of the Embyro - Using Online Resources (Student Handout)

Supporting Resources:

1. How Does an Embryo Develop?, pp. 293-296 *Biology Investigations*

2. Embryonic Membranes, pp. 284-285 *Biology Coloring Workbook*

3. External and Internal Development, pp. 446-449 *Prentice Hall – Biology the Study of Life*

Lesson 5.1 – An Introduction to the Nervous System

Learning Objectives:

- Describe the structure and function of a neuron.
- Describe the similarities and differences between reflexes and instincts.
- Explain how the components of the nervous system function together.
- Use terminology related to the nervous system: neuron, glial cell, cell body, dendrite, axon, myelin sheath, synapse, neurotransmitter, central nervous system, peripheral nervous system, cerebrum, cerebellum, diencephalon, brain stem, spinal cord, autonomic nervous system, somatic nervous system, reflex, and instinct.

Lesson Overview:

Students are introduced to the nervous system thorough a five senses writing activity and concept mapping. They then work thorough a reading and question package which introduces them to the components of the nervous system, reflexes and instincts.

Suggested Timeline: 2.5 hours

Instructional Document(s):

- *Sens*ible Writing (Student Handout)
- What is the Nervous System? (Student Handout – Individual)
- What is the Nervous System? (Student Handout – Group)
- QUIZ – An Introduction to the Nervous System (Student Handout)

Supporting Resources:

1. Exercise 29 - Writing With the Five Senses, *Fearon's General Science Workbook*

2. What is the Nervous System?, pp. 136-141 *Science Workshop Series - Biology*

3. What is a Reflex?, pp. 164-168 *Science Workshop Series - Biology*

4. The Nervous System, pp. 113-116 *Human Biology and Health Activities*

5. The Sense Organs, pp. 99-101 *Human Biology and Health Activities*

Lesson 5.2 – Investigating Your Senses

Learning Objectives:

- Perform activities to investigate touch, smell, temperature perception, taste, and vision.
- Follow directions for completing a specific task.
- Work collaboratively and cooperatively with others to collect and interpret data.

Lesson Overview:

Students learn about their senses in hands-on laboratory activities.

Suggested Timeline: 2 hours

Instructional Document(s):

- *Sensing* Your Surroundings – A Laboratory Investigation (Student Handout)
- Playing with Perception – An Investigation of Vision (Student Handout)

Supporting Resources:

1. Touch, Temperature, Smell and Taste, pp. 193-200 *Addison-Wesley Biology – A Systems Approach*

2. Visual Perception, pp. 201-204 *Addison-Wesley Biology – A Systems Approach*

3. Investigating Senses: Sight, Touch, and Taste, pp. 115-119 *Prentice Hall Biology – The Study of Life*

4. The Taste Map: All Wrong, *Scientific American Magazine, March 18, 2001*

Lesson 5.3 – Testing the Nervous System

Learning Objectives:

- Differentiate between stimulus and response.
- Investigate the effect of different cues on personal reaction time.
- Work collaboratively and cooperatively with others to collect and interpret data.

Lesson Overview:

Students will learn about nervous system conditioning thorough a stimulus-response activity and complete an activity to test their reaction time.

Suggested Timeline: 2 hours

Instructional Document(s):

- Training Your Virtual Dog (Student Handout – Individual)
- Stimulus and Response – Conditioning the Nervous System (Student Handout - Group)
- Can You Catch Me? - Testing Your Reaction Time (Student Handout)
- Testing the Nervous System (Teacher Support Material)

Supporting Resources:

1. The Stimulus-Response Action, p. 449 *Invitations to Science Inquiry, 2nd Ed.*

2. Catch the Dollar Bill, p. 447 *Invitations to Science Inquiry, 2nd Ed.*

3. How Fast Can You React?, p. 448 *Invitations to Science Inquiry, 2nd Ed.*

4. Testing Reflexes and Reactions, p. 111-114 *Prentice-Hall Biology: The Study of Life – Laboratory Manual*

5. http://nobelprize.org/educational_games/medicine/pavlov/ - online game on nervous system conditioning

Lesson 5.4 – Neurological Disorders

Learning Objectives:

- Investigate neurological disorders.
- Create a presentation to educate others about a specific neurological disorder.

Lesson Overview:

Students will research a neurological disorder and develop an informative brochure about the disorder.

Suggested Timeline: 3 hours

Instructional Document(s):

- Neurological Disorders (Student Handout)

Supporting Resources:

1. http://www.ninds.nih.gov/disorders/disorder_index.htm - online comprehensive list of neurological disorders

2. http://www.computorcompanion.com/LPMArticle.asp?ID=143 – online resource on how to use Microsoft Word to create a tri-fold brochure