An integrated, interdisciplinary unit for third through fifth grade gifted and talented students examining the functioning, physical fitness, technology, and emotions of the heart.

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OVERVIEW

I. CONTENT:
Heart disease is the number one killer of Americans. This unit is designed to educate students about the functions of the heart and how to maintain a heart-healthy lifestyle. In addition, students will learn about the history of medical advances in heart surgery and transplants. Finally, students will gain an understanding of emotions associated with the heart.

II. PROCESS:
Students will have the opportunity to engage in activities that promote divergent thinking skills. Students will work independently, as well as in small groups and as a whole class, to form creative associations of ideas across discipline lines.

III. PRODUCT:
Students will understand the complexity and interrelationships of the circulatory system. Students will be able to apply this knowledge by maintaining a healthy lifestyle and recognizing the need for emotional wellness.

Unit Overview: Alignment with State/District Pupil Performance Outcomes

GOAL 1: Students will identify the parts of the circulatory system and demonstrate how it works.

GOAL 2: Students will recognize the relationship between a disease-free heart and healthy eating habits, exercise, and choosing not to use tobacco.

GOAL 3: Students will discuss the history and debate the ethical issues associated with the technological advances in heart transplants.

GOAL 4: Students will understand the different cliches that explore various emotions of the heart.

I-SEARCH INDEPENDENT RESEARCH PROJECTS FOR GIFTED AND TALENTED STUDENTS

1. PARADOXES:
Staying physically fit has been proven to help prevent heart disease. However, Jim Fixx, the author of The Ultimate Book of Running and Florence Griffith Joyner were runners in great physical shape who died of heart failure. You are an editor of a physical fitness magazine who has received letters from readers saying that physical fitness must not really help prevent heart disease if these people died. Write an article for your magazine exploring these ideas.

2. ATTRIBUTES:
Challenge students to research on tobacco companies’ knowledge and denial of the addictive nature of nicotine and the FDA’s attempts to regulate tobacco as a drug. Students will then give closing statements for the defense and the prosecution on a case taken to court on these issues. As a result of your case, write a new law for the tobacco companies.

3. ANALOGIES:
Students will do in-depth research of the heart. They will then create illustrations depicting at least 10 heart analogies.

4. **DISCREPANCIES:**
Research the progression of transplants – from animal hearts to current artificial hearts. Write a science fiction story about your findings.

5. **PROVOCATIVE QUESTIONS:**
Explore the pros and cons of finding cures for heart disease. Create a political cartoon portraying your viewpoint on the issue.

6. **EXAMPLES OF CHANGE:**
Find evidence that a healthy diet prevents heart disease. Create a cross-word puzzle using heart healthy terms (or interview a person who has had a heart attack and has changed their eating habits)

7. **EXAMPLES OF HABIT:**
Exercise is important for good health. How much is necessary to remain heart healthy? Construct a survey for at least ten people to see if they are exercising enough. Show your results.

8. **ORGANIZED RANDOM SEARCH:**
Love between two people creates a family structure. Investigate how families grow and change. Create a family tree, making as many branches as possible.

9. **SKILLS OF SEARCH:**
Research blood pressure and its connection to your heart health. Create an experiment showing the benefits of having a healthy blood pressure.

10. **TOLERANCE FOR AMBIGUITY:**
Why do people continue to smoke when it has been proven to cause heart disease? Include statistics. Make a videotape as a public service message convincing people to quit smoking or not to start in the first place.

11. **INTUITIVE EXPRESSION:**
Observe people in a variety of situations and photograph ways in which people show emotion through body language. Create a photo essay that includes at least ten photos portraying these emotions.

12. **ADJUSTMENT TO DEVELOPMENT:**
Research the problem of bodies rejecting heart transplants. Why are heart transplants successful now? (Include information on the progress made possible by animal research and drug therapies. Students will present findings in a PowerPoint presentation.

13. **STUDY CREATIVE PEOPLE AND PROCESS:**
Research a creative person who has made contributions to heart research. Present information to the class in costume as that person.

14. **EVALUATE SITUATIONS:**
Research the role of the conscience in fairy tales. Create a fairy tale of your own in which there is conflict as to which conscience to follow.

15. **CREATIVE READING SKILL:**
Research the function of the heart. Create a flip book demonstrating the functioning of the heart.

16. **CREATIVE LISTENING SKILL:**
Listen to a variety of songs about the heart. Make a chart recording the way each song makes you feel. Create a class exhibit that displays the emotions elicited by the songs.
17. **CREATIVE WRITING SKILL:**
Read a piece of literature related to the heart. Rewrite the last chapter.

18. **VISUALIZATION SKILL:**
Research exercise that is appropriate for young children. Illustrate three types of exercises for young children. The illustration should be detailed enough so that a non-reader can easily perform the exercises.

**ANALYZING HUMAN ACTIVITIES! (AHA!)**

1. **PRODUCING, EXCHANGING, AND DISTRIBUTING [ECONOMICS]**
(Textbook or Database: Heart Power Readers; Nutrition for Life)

**KNOWLEDGE:**
Anticipatory Set: Students figure out the coded message displayed on transparency. Write the alphabet in a row and number each letter. Write the letter that corresponds to each number in the code to find the secret message.

\[
5 1 20 \quad 13 15 18 5 \quad 6 18 21 9 20 19 \quad 1 14 4 \quad 22 5 7 5 20 1 2 12 5 19
\]
(Eat more fruits and vegetables)

Students will: recognize the contributions that healthful food habits make to heart health and identify the external factors, such as parents, friends, advertising and economics, that influence choices about food.

**COMPREHENSION:**
Read “Food Fight” and “Eating on the Run” articles from Heart Power booklet. Students will use labels from various foods to create bar graphs comparing price, calories, carbohydrates, sugar, protein and fat of two similar products, ex: milk and soda, chips and pretzels.

**APPLICATION:**
Anticipatory Set: Video clip “Shop ‘til you Drop” TV Show PAX

Students will: In small groups, students will create an ad pyramid based on the food pyramid. Using the food section or grocery ads from a newspaper, mark each food group with a different color. Analyze your results to determine which food groups are on sale.

**MULTICULTURAL and/or ESL and/or BILINGUAL LINK:** What are heart healthy snacks from other cultures?

**MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK:** Compare and contrast generic and name brand products for price.

**SCHOOL-TO-CAREER/TECH PREP LINK:** Share an article written by a nutritionist.

**HIGHER ORDER THINKING SKILLS (H.O.T.S.):**
Anticipatory Set: Recite together the poem “Jack Sprat”

Students will: How are your food choices affected by where you live? Students will research which foods are native to an assigned location.

Class/team/individual product: Plan a menu for dinner from your location.

**INDIVIDUAL JOURNAL ASSIGNMENT:**
List factors that influence personal food choices

**HOMELINK:**
Students prepare a low fat snack and bring a recipe to share with class. Compile class cookbook.

2. **TRANSPORTATION**
(Textbook or Database: The Heart by Seymour Simon)
KNOWLEDGE:
Anticipatory Set: Read poem “Hearts” by Lois Simmie.
Students will: Identify the parts of the heart and explain how blood is pumped through the body; discuss what the author meant when she says she has “hearts all over the place, places where the pulse can be felt, and facts about the heart identified in the poem.

COMPREHENSION:
Students label the parts of the heart and demonstrate that the heart is a pump. Demonstrate that the heart is a pump by squeezing water through your palms and letting the water squirt all over. The heart pumps blood not all over, but transports it through the veins and arteries. Students will describe the transportation mechanism of the heart so that blood is channeled to all parts of the body.

APPLICATION:
Anticipatory Set: Video clip “Patch Adams” (Patch clowning around with patients using a stethoscope)
Students will: Locate three pulse points on themselves (neck, wrist, heart, behind knee).
Class/team product: In small groups, students will explore and use the stethoscope to hear their own and others heartbeat.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Learn the Spanish word for heart—corazon.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: If we have 5 quarts of blood in our body, and 3 million quarts are transported a year through our blood vessels a year, determine how many times does your blood cycle through your body?

SCHOOL-TO-CAREER/TECH PREP LINK: Invite a phlebotomist to class to demonstrate how to take and give blood.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory set: Play song clip “Every beat of My Heart” by Gladys Knight
Students will: Create their own model of the heart using materials such as different colored yarn to distinguish arteries, and veins and or balloons and rubber tubing to show arteries, ventricles and blood vessels of the heart.

INDIVIDUAL JOURNAL ASSIGNMENT:
Why is giving blood important?

HOMELINK:
Locate a family members pulse in at least two places.

3. COMMUNICATIONS (Textbook or Database: Classroom library)

KNOWLEDGE:
Anticipatory Set: Sing along adapted version of “The More We Work Together”
Students will: Overview the different systems of the body and see how they work together including the digestive, circulatory, nervous, respiratory, reproductive and skeletal systems. Students will review one system in a small group and then choose a way to present it to the whole class.
COMPREHENSION:
How have the systems of your body communicated with one another so far today? or to get you here today?

APPLICATION:
Anticipatory Set: Video clip “The Paper” scene showing how all parts of the newspaper are put together
Students will: review newspaper format and differentiate communication styles. Have the class produce a body newspaper. Each group creates a section of the paper (an editorial, comic, advertisement, etc) that explains how their system communicates with the other body systems.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Discuss similarities and differences in body language throughout the world.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: The systems of your body communicate with each other silently. How and why do some people communicate silently? (American or International Sign Language)

SCHOOL-TO-CAREER/TECH PREP LINK: Generate a list of jobs in which lives depend on appropriate communication.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: audio clip “Emotions” by the BeeGees
Students will: find ten pictures from magazines, newspapers, etc. that provoke an emotional response. Create an emotion response worksheet listing approximately ten emotions. Conduct a research project with family members, friends, neighbors, etc. to see if the pictures stir up the same emotion in everyone. Share your results with the class.

INDIVIDUAL JOURNAL ASSIGNMENT:
Which picture elicited the strongest emotion in you and why?

HOMELINK:
Conduct or share the research from your emotional response worksheet.

4. PROTECTING AND CONSERVING

KNOWLEDGE:
Anticipatory Set: audio clip “Heart Attack” by Billy Joel
Students will: identify heart disease as the number one killer of Americans, and will describe what happens when a person has a heart attack or a stroke. Read “Mending a Broken Heart” from Kids Discover.

COMPREHENSION:
Have students write a short script for three characters: a person who is having a stroke or heart attack, or who is choking: a person who is with the first person: and a third person helping with the emergency—a 911 dispatcher, a paramedic, or an emergency room doctor. Encourage students to be specific in their depiction of the stricken person’s symptoms. Invite them to perform their scripts for their classmates, who can critique them for clarity.

APPLICATION:
Anticipatory Set: Book “Pump the Bear” by Giselle Washington
Students will: Invite a cardiologist to the class to speak. Discover what a cardiologist’s job entails.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Share statistics on heart disease of different ethnic groups in our countries.
MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Interview five people to determine how many people they know who have been affected by heart disease. Present findings as a graph or ratio.

SCHOOL-TO-CAREER/TECH PREP LINK: Doctors who specialize in cardiac medicine help people who are suffering from heart disease. Ask students if they would like to be a cardiac doctor. Explain. How do you think you would react in life-or-death situations in which your thinking could make the crucial difference? What qualities do you think people need in order to succeed in such situations?

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: Video clip of actual heart surgery or audio clip “Heart Trouble” by Martina McBride
Students will: construct a model of a clogged artery using flexible rubber tubing and cotton. Discuss that fatty deposits, containing cholesterol, which can stop blood flow, causing a heart attack. Cardiologists correct this problem by performing a coronary bypass. Student will use another piece of tubing to complete a bypass on their model.

INDIVIDUAL JOURNAL ASSIGNMENT:
How are you living to prevent heart disease?

HOMELINK:
Find out if anyone in your family (extended) has suffered from stroke and/or heart disease.

5. PROVIDING EDUCATION
(HeartPower Readers: No Ifs, ands or Butts)

KNOWLEDGE:
Anticipatory Set: Poem “Smoking in the Cellar” by Jack Prelutsky
Students will: identify the effects of smoking on the heart, (firsthand and second hand) and recognize that the use of tobacco represents a choice. Discuss the article “No Ifs, Ands or Butts.”

COMPREHENSION:
Watch the Heart Power video “Game Show” about smoking and have students write down the different effects of tobacco use with the video contestants.

APPLICATION:
Anticipatory Set: Have 32 ounces of dark molasses. Tell students it represents tar. Have students predict how much tar a person’s lung would receive if he smokes a pack of cigarettes a day for one year. Pour molasses into a clear glass container. (Any amount between 4 and 32 ounces is correct).
Students will: In small groups, students will compose a jump rope rhyme that tells about some of the negative aspects of smoking.
Class/team product: Students share their rhymes.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Explore another culture’s views on smoking.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Worksheet “Smoker’s Math” from American Heart Association

SCHOOL-TO-CAREER/TECH PREP LINK: Research the effect of tobacco farming in America.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: Poem “The Smoking Yokadokas” by Jack Prelutsky
Students will: write letters to the local government offices defending a smoke free policy for public places.

**INDIVIDUAL JOURNAL ASSIGNMENT:**
Write an article describing how you feel about smoking and how you think your attitude has been shaped by others.

**HOMELINK:**
Interview someone about his/her smoking habits. Does this person smoke? Why or why not?

6. **MAKING AND USING TOOLS AND/OR TECHNOLOGY**

**KNOWLEDGE:**
**Anticipatory Set:** Hold up a brown bag full of tools (spoon, vegetable peeler, sharp knife, cutting board, and butter knife). Have students guess what the tools are for, as the teacher pulls them out one at a time. Make “Ants on a Log” (celery with peanut butter and raisins). Can leave knife or one of the tools out of the bag and discuss how important it is to be prepared, especially in surgery.

**Students will:** learn about various tools and technology used by physicians: stethoscope, EKG or ECG, pacemaker, transplants

**COMPREHENSION:**
Place large scale paper models of the heart and lungs on the floor. Students act like blood cells entering the heart (right atrium) holding the blue paper and leave through the lower vena cava and go into the lungs and trade in the blue paper for red paper symbolizing the gain of oxygen. Students return to the heart entering the left atrium and flowing back out to the body. Have students move at a regular pace and then move slowly showing that the bioelectrical triggering system is malfunctioning. Teacher will act as a pacemaker by providing a stimulus (snap or clap) to the heart so that blood can flow smoothly again.

**APPLICATION:**
**Anticipatory Set:** Students in small groups receive cards listing moments in medical history relating to heart health. Students try to construct an accurate timeline by putting the cards in order from the earliest event to the most current.

**Students will:** research the medical history of heart care and glue their cards in order and add the date to create their timeline.

**MULTICULTURAL and/or ESL and/or BILINGUAL LINK:** Which country has had the most significant influence, discovery or contribution to heart related medicine throughout history?

**MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK:** Compare cost of different heart care procedures.

**SCHOOL-TO-CAREER/TECH PREP LINK:** Operating Room technician

**HIGHER ORDER THINKING SKILLS (H.O.T.S.):**
**Anticipatory Set:** audio clip “Change of Heart” by Cyndi Lauper

**Students will:** predict what new technology and tools might be available in 30 years to preserve the heart and quality of life. Design a brochure that advertises your new technology and its benefits.

**INDIVIDUAL JOURNAL ASSIGNMENT:** How has technology changed our quality of life?

**HOMELINK:** Ask a parent or grandparent how medical related tools and technology have changed over their lifetime.

7. **PROVIDING RECREATION**
KNOWLEDGE:
Anticipatory Set: Video clip from movie “Rocky” showing his training or running up the steps
Students will: recognize that physical activity creates a healthy heart and lifestyle by reading “Why Should I Exercise” from the Heart Power Reader.

COMPREHENSION:
Distinguish the difference between aerobic and anaerobic by reading “Fit for Fun.” Discuss that muscles, like the heart, can be made stronger with regular physical exercise. As a group, have students brainstorm activities and distinguish whether they are aerobic or anaerobic.

APPLICATION:
Anticipatory Set: Poem “Who Invented Running” by Pete Garvey
Students will: check their resting pulse. Have students run in place for two and four minutes and take their pulse after each run.
Class/team product: Students will participate in an organized fitness event (ex: Jump Rope for the Heart).

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: How does the lifestyle of a Sumo wrestler affect the health of his heart?

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Calculate the cost of a night at a professional sporting event for a family of four, including parking and snacks.

SCHOOL-TO-CAREER/TECH PREP LINK: List the occupations that you could have based on the skills you have acquired through your recreational activities.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: audio clip “Wind Beneath My Wings” by Bette Midler
Students will: discuss athletes that they admire and explain why.
Class/team/individual: Challenge students to design a trading card for themselves. On one side of the card have students draw pictures of themselves engaged in a physical activity they enjoy. On the other side, have them write appropriate captions and statistics.

INDIVIDUAL JOURNAL ASSIGNMENT:
Write a letter to an athlete whom they admire in which they describe their own physical activity habits.

HOMELINK:
Interview family and friends about why they exercise.

8. ORGANIZING AND GOVERNING
(Textbook or Database: Kids Discover Heart)

KNOWLEDGE:
Anticipatory Set: Use “webanatomy.com” to show animated clip of the circulatory system or transparency of “Round and Round You Go” diagram (Heartpower! Reader)
Students will: understand the process of how the heart works with the brain and lungs to operate the circulatory system.

COMPREHENSION: Students will trace the top half of their bodies on butcher paper and illustrate the organization of the circulatory system by labeling and drawing the brain, lungs, heart, and flow of blood.

APPLICATION:
Anticipatory Set: video clip from “Magic School Bus-Human Body” showing the circulatory system
Students will: create an original jingle or song that will introduce the circulatory system to a younger class.
Class/team product: Students will present their songs to their classmates.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Research laws regarding alternative medicine in other countries.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK:
Your body has 60,000 miles of blood vessels. Starting at your home city, use a map to plan a round trip vacation that takes 60,000 miles.

SCHOOL-TO-CAREER/TECH PREP LINK: Discuss why nurses or medical assistants listen to your heart.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: 3rd-4th grade : Read “The Principal From the Black Lagoon” or 4th-5th grade: Read “How the Government Works” by Syl Sobel
Students will: formulate an analogy comparing the way the heart governs the circulatory system to the way the principal governs a school or the way the local government is organized.

INDIVIDUAL JOURNAL ASSIGNMENT:
If you could be any part of the circulatory system, which part would you be and why?

HOMELINK:
Share body diagram and tell how the circulatory system is organized.

9. MORAL, ETHICAL, AND SPIRITUAL BEHAVIOR

KNOWLEDGE:
Anticipatory Set: Poem “The Homework Machine” by Shel Silverstein, from A Light in the Attic
Students will: generate a list of the pros and cons of the prevalence and use of technology in today’s society.

COMPREHENSION:
Discuss the quality of life issue surrounding technological advances in heart medicine. Students create a cartoon depicting their view on the quality of life issue.

APPLICATION:
Anticipatory Set: Video clip “Rain Maker” showing trial scene
Students will: Hold a mock trial where Betty Brilliant has discovered a cure for a leaky heart valve, but has used the medical school lab and equipment for her research. Her two alter egos are on trial. Betty A wants to work with the school to make her discovery known; Betty B wants to go off and make her money alone.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: In what countries did heart technology originate?

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Discuss roles that students play in the mock trial: judge, lawyer, bailiff, court reporter.

SCHOOL-TO-CAREER/TECH PREP LINK: Medical ethics

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: audio clip “I Will Survive” by Gloria Gaynor

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Students will: write a short essay telling which patient should be first in line to get a heart transplant—the sickest, the youngest, the most famous, the one most likely to survive the operation, the first to sign up?

**INDIVIDUAL JOURNAL ASSIGNMENT:**
Why do you think people would want to donate their organs when they die? Why do you think some people are unwilling to donate their organs? How do you feel about it? Explain.

**HOMELINK:**
Discuss if family members have signed their drivers license giving permission to be an organ donor. Why or why not?

10. **AESTHETIC NEEDS**
(Textbook and Database: Kids Discover! Magazine “Heart” issue)

**KNOWLEDGE:**
*Anticipatory Set:* video clip of “Wizard of Oz” showing the Tinman explaining why he wants a heart; Play Kenny Chesney’s “The Tin Man”.
*Students will:* understand different cliches that explore various emotions of the heart. Students should choose a “hearty” expression to illustrate and define (example: “The heart of the matter” means get to the point.)

**COMPREHENSION:**
Read “Love Potions and Other Emotions.” (article from Kids Discover!) Play “Pictionary” or “Charades” using various heart words and phrases.

**APPLICATION:**
*Anticipatory Set:* audio clip “Heartland” by George Strait
*Students will:* read “Heartland” by Diane Siebert and illustrated by Wendell Minor. Discuss the title of the book, its meaning, and find a correlation between the “heartland” and the human heart.
*Class/team product:* Adapt the “Heartland” story format to write a poem expressing your feelings about a special event or place.

**MULTICULTURAL and/or ESL and/or BILINGUAL LINK:** Post the Chinese proverb “Keep a green tree in your heart and perhaps a singing bird will come.” What do you think it means? Put the saying in your own words. Do you agree with the idea expressed? Explain.

**MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK:** Observe several paintings by Mary Cassat and ask students to discuss the emotions her painting elicit.

**SCHOOL-TO-CAREER/TECH PREP LINK:** Have the school counselor come and speak about her job and education required.

**HIGHER ORDER THINKING SKILLS (H.O.T.S.):**
*Anticipatory Set:* video clip “Diary of A Young Girl” Anne Frank story showing Anne writing in her diary
*Students will:* review who Anne Frank was. Discuss that she and her family were forced to hide from Hitler’s Nazis. What do you feel is meant by her quote “In spite of everything, I still believe that people are really good at heart.” Do you think that if you had lived as Anne Frank did (hiding for several years), would you believe people are good at heart? Do you believe that people are good at heart? Students hold a debate on these issues.

**INDIVIDUAL JOURNAL ASSIGNMENT:**
Does “absence make the heart grow fonder” or is it more like “out of sight, out of mind?” Which saying holds true for you?
HOMELINK:
Ask your parents or a married couple how they knew that they were in love.

11. SOCIAL SCIENCE OR Valentine’s Day
(Kids Discover! “Heart” issue)

KNOWLEDGE:
Anticipatory Set: Ask “What is the only organ to have its own holiday?” Pass out conversation heart candy. Create Valentine sentences and questions using the candy.

Valentine’s Day honors two different saints named Valentine. Our customs, however, come from the Roman festival called Lupercalia. This festival honored Pan, Roman god of nature, and Juno, Roman goddess of woman and marriage. During this festival, young people drew names from a box and exchanged gifts. This custom was gradually replaced with sending cards. The first commercial Valentine’s Day cards produced in the U.S. were designed by Ester A. Howland in 1840.

COMPREHENSION: Read “Arthur’s Valentine’s Day” by Marc Brown. Give examples of Valentine’s Day traditions that are common in today’s society. Does your family have any unique or special way to celebrate? (ex: flowers, cards, candy, dinner, gifts)

APPLICATION:
Anticipatory Set: Poem “Valentine’s Day”
If I could be the postman for just one single time,  
I’d chose to carry Valentines so lovely and so fine.  
I would not mind the heavy load, or mind my tired feet,  
If I could scatter happiness all up and down the street.

Student will: make a booklet or pop-up card showing what they know about Valentine’s Day.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Learn to say “I love you” in five different languages. OR Is Valentine’s Day an international holiday? How many different countries can you find that celebrate? OR Create a Valentine in another language.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Candy is frequently received as a Valentine’s Day gift. Sugar is a simple carbohydrate that provides quick energy but no nutrients. List other healthy food options that would make a nice gift.

SCHOOL-TO-CAREER/TECH PREP LINK: Graphic designer, card maker, sales clerk, candy maker, mail carrier

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: audio clip “She Loves You” by the Beatles or poem “Love is…” by Greg Scelsa
Students will: answer the question “What is love?” Give dictionary definitions, then have students compose their own definition of love. Then ask, “Why do people love each other?” Have students analyze and compare their answers to both questions.

INDIVIDUAL JOURNAL ASSIGNMENT:
Write a Valentine to your family. Tell them how and/or why they are special to you.

HOMELINK:
Ask family members to tell about the first, or a special, Valentine that they received.

12. MATHEMATICS OR Careers
KNOWLEDGE:
**Anticipatory Set:** audio clip “Career Choice” by Ben Lee
**Students will:** brainstorm a list of possible careers pertaining to the heart, heart medicine or healthy living in regards to the heart. (Ex: 911 operator, paramedic, doctor, nurse, surgeon, cardiologist, counselor, aerobic instructor, ambulance driver, acupuncturist, bioengineer, clinical lab technologist, nutritionist, physician assistant)

**COMPREHENSION:**
Read about a person with a career in heart medicine and summarize his/her life, including the amount of education they needed to obtain their job and any special accomplishments.
Ex: Robert Jarvek – designed artificial heart
Daniel Hart Williams – African-American doctor who performed the first successful heart surgery
Denton Cooley – first heart transplant surgery

**APPLICATION:**
**Anticipatory Set:** audio “Doctor, Doctor, Give me the News” by the Who
**Students will:** Have students choose two careers from brainstorming session and make a Venn diagram showing the similarities and differences between the two jobs. Share/present to the whole group.

**MULTICULTURAL and/or ESL and/or BILINGUAL LINK:** Is medicine a respected career in all communities? OR How might the health of non-English speaking Americans suffer?

**MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK:** If an average doctor made $0 during four years of college and four years of medical school, and $30,000 during five years of residency, and then $150,000 for seven years, what is his average salary for the 20 years worked?

**SCHOOL-TO-CAREER/TECH PREP LINK:** See brainstorm list from knowledge activity.

**HIGHER ORDER THINKING SKILLS (H.O.T.S.):**
**Anticipatory Set:** Have two students dramatize parts of Dr. Cooley’s interview.
(www.achievement.org/autodoc/page/coo)int-1
**Students will:** defend or revise the quote by Edison that “genius is 1% inspiration and 99% perspiration.”

**INDIVIDUAL JOURNAL ASSIGNMENT:**
Would you like a career in medicine? Why/why not?

**HOMELINK:**
Ask family members to tell about their first job and their favorite job.

13. **SCIENCES: Animal Hearts**
**Anticipatory Set:** Sing along “Three Blind Mice”
**Students will:** identify rats, mice, monkeys and pigs as animals being used in heart disease research. Discuss how research in animals has led to longer lives in humans. Also discuss the effect this has on animals.

**COMPREHENSION:**
We know that animals are being used to prolong human lives through heart research. In what other ways are animals being used to prolong human lives. (ex: dogs visiting hospitals). Use Time For Kids, May 4, 2001 issue (Vol.6, No. 26)

**APPLICATION:**
**Anticipatory Set:** video clip “Where the Red Fern Grows” showing the part where Dan, the dog stays by Ann’s grave
Students will: demonstrate an understanding of the love shown by the dog by making a diary entry by the boy describing his compassion for his dog.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: What animals are used for heart research in other countries?

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Make a graph comparing the heart rates of yourself, rats, mice, monkeys and pigs.

SCHOOL-TO-CAREER/TECH PREP LINK: Veterinarian

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: Quote by Charles Darwin “I know that physiology cannot possibly progress except by means of experiments on living animals, and I feel with the deepest conviction that he who retards the progress of physiology commits a crime against mankind.”
Students will: deliver a commentary either for or against the use of animals in scientific research.

INDIVIDUAL JOURNAL ASSIGNMENT:
Write about a time when you have seen an animal show emotion.

HOMELINK:
Ask a family member how he/she feels about animals being used for scientific research.

14. READING OR HUMANITIES/LITERATURE

KNOWLEDGE:
Anticipatory Set: Read the “Kissing Hand” by Audrey Penn
Students will: describe the meaning of unconditional love. Discuss that love is one emotion that comes from the heart and ask students to brainstorm other examples.

COMPREHENSION:
Students create cartoon drawings of the heart distinguishing different emotions that come from the heart. (green heart=jealousy, happy face heart)

APPLICATION:
Anticipatory Set: Students watch video “Parent Trap”
Students will: list feelings of the heart that they see being portrayed throughout the movie.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Find a poem from another culture that shows the emotions emanating from the heart.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Describe how artists try to show in two dimensions the power of the heart. (halos, heart lights, E.T.’s finger)

SCHOOL-TO-CAREER/TECH PREP LINK: Students discuss favorite authors.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: Read “A Taste of Blackberries” by Doris Buchanan Smith.
Students will: write a fiction book for primary students showing an emotion that comes from the heart.

INDIVIDUAL JOURNAL ASSIGNMENT:
Describe your favorite book.
HOMELINK:
Ask a family member to tell you about their favorite book about friendship.

15. **Emotional Response: Heartbreak**

**KNOWLEDGE:**
**Anticipatory Set:** Audio clip “Achy Breaky Heart” by Billy Ray Cyrus
**Students will:** Discuss the term “heartbreak”; Students define a “broken heart” and a “heartbreaker”; Inform students that there are places called Heartbreak Ridge and Heartbreak Hill. Discuss why these places have these names.

**COMPREHENSION:**
Relate the term “heartbreak” to your own life. Give examples of times when you’ve been heartbroken.

**APPLICATION:**
**Anticipatory Set:** Audio clip “Don’t go Breaking my Heart” by Elton John.
**Students will:** Read Emily Dickinson’s poem which begins, “If I could stop one heart from breaking…”
**Class/team product:** Students restate what they believe Dickinson is saying and illustrate what they believe Dickinson means.

**MULTICULTURAL and/or ESL and/or BILINGUAL LINK:** Locate Heartbreak Ridge and identify where it’s located.

**MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK:** Look through art books to find paintings that depict a heartbreaking scene.

**SCHOOL-TO-CAREER/TECH PREP LINK:** List careers that you believe help people feel good about themselves (prevent heartbreak like Dickinson)

**HIGHER ORDER THINKING SKILLS (H.O.T.S.):**
**Anticipatory Set:** Show scene from “Wild Hearts Can’t Be Broken” (heartbreaking scene where the character realizes she can’t ride horses again)
**Students will:** analyze what it really means to have a broken heart and what the title of the movie really means. Let students know that in the movie, the girl does come back and defy the odds. Plan a course of action to prevent a disappointing experience from turning to heartbreak. Use modern day “heroes”, such as Christopher Reeve for inspirational examples.

**INDIVIDUAL JOURNAL ASSIGNMENT:**
Define the term “bleeding heart”. Respond to the question “Can someone have too much pity?”

HOMELINK:
Ask family members if they know of anyone who they consider to be a “bleeding heart”. Discuss. Inform family where the term derives from. (flower)

16. **FINE ARTS OR THE TELL-TALE HEART**

**KNOWLEDGE:**
**Anticipatory Set:** Students enter a candlelit room to hear audio clip of heart beating.
**Students will:** name as many songs, poems, and books that they can think of that personifies the heart. (ex: My heart belongs to Daddy, My Heart Will Go on).

**COMPREHENSION:**
Is the heart in literature used more to convey positive love images or negative images? Give examples of each.
APPLICATION:
Anticipatory Set: video clip “Liar, Liar” Jim Carey (scene where the character is in conflict with his alter egos)
Students will: create a Venn diagram showing Jim Carey’s good heart/conscience demanding he tell the truth for a day vs. his evil heart making him lie and not tell the truth.

MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Discuss why Aztecs sacrificed a beating heart to their gods.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: How long can a person live without a beating heart?

SCHOOL-TO-CAREER/TECH PREP LINK: Ask school nurse to explain why CPR must keep blood circulating even though the heart isn’t beating.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: Sing along “Every breath you take” by Police (change words to “beating of the heart”)
Students will: write an ode to their heart on why it’s a good heart and why they’re going to keep it good with a good conscience

INDIVIDUAL JOURNAL ASSIGNMENT:
Write about a time when your heart skipped a beat.

HOMELINK:
Ask your parents about a time when they were very scared.

PHYSICAL ED OR VOCATIONAL/TECHNICAL ARTS

KNOWLEDGE:
Anticipatory Set: View training scene from “Vision Quest”
Students will: List physical activities that promote fitness on an individual and non-competitive level. Share examples of famous people who promote fitness (Arnold Schwartznegger, Kevin Sorbo-A World Fit For Kids)

COMPREHENSION:
Class divides into two teams to perform skits where one team illustrates good sportsmanship (people who just want to have fun and be healthy) and the other team should illustrate some negative points of being too competitive. Discuss qualities of good sportsmanship.

APPLICATION:
Anticipatory Set: Watch or read Marc Brown’s “Arthur Makes the Team”
Students will: discuss positive and negative aspects of the video characters
Class/team product: Apply cooperative learning skills to play “Alaskan Baseball”. Teacher explains that in this game, teams must work cooperatively. A pitcher rolls a ball to the kicker who kicks the ball to the outfield. The kicker then begins to run around his team that is lined up together behind home plate, and the team counts each time the kicker returns to the front of the line. Meanwhile, an outfield team member catches the ball and freezes in that spot where the ball is caught. His/her teammates run to line up behind him/her. When the outfield team is lined up, the “catcher” yells “STOP!” The kicker’s team stops counting. It is now time for the next player to kick. Cumulate points for each team. Teams switch places when all players have had a turn to kick. Play as many innings as you’d like. Winning team is that team with the most cumulative points.
MULTICULTURAL and/or ESL and/or BILINGUAL LINK: Name popular fitness activities in other countries or have one of your students from another country teach an ethnic game to the class.

MATHEMATICS/SCIENCE LINK and/or HUMANITIES LINK: Review how to count your pule rate.

SCHOOL-TO-CAREER/TECH PREP LINK: Have your school physical education teacher come to talk about how to make choices that will keep students fit for life.

HIGHER ORDER THINKING SKILLS (H.O.T.S.):
Anticipatory Set: Audio clip “Eye of the Tiger” by Survivor
Students will: monitor their heart rate once each month to evaluate whether or not their fitness plan is effective.
Class/team/individual product: Each student will develop a personal fitness action plan consisting of a goal for improving heart health

INDIVIDUAL JOURNAL ASSIGNMENT:
Decide whether or not your fitness plan is working for you. Keep an update in your journal a few times a month throughout the semester.

HOMELINK:
Share your fitness plan with your parents.

MORAL/ETHICAL/ SPIRITUAL REASONING AND DILEMMAS

1. Producing, Exchanging, and Distributing [Economics]
DILEMMA: A thirteen year old child has parents who have deserted him and his siblings. His younger brother and sister are hungry and the food and money has run out. He is desperate and does the only thing he can think of, stealing food from the local grocery store. You are the police officer on duty. What would you do?

2. Transportation
DILEMMA: You are a doctor faced with an AB blood type shortage at the hospital. One of your terminally ill patients needs this kind of blood transfusion to prolong his life. If you give him this blood, you will not have this type available for emergency patients whose lives may be saved. What do you do?

3. Communications
DILEMMA: Several of your family members have died in the past from a debilitating illness. A test is now available to you to see if you are a carrier of this disease and will acquire this illness as you grow older. Do you take the test?

4. Protecting and Conserving
DILEMMA: You had a stroke and doctors have determined the cause to be your high stress job. After several months of therapy, you are able to work again. You know you must provide income for your family. You cannot find a job that provides your family with the same standard of living that they are used to. Do you return to the same high stress job?

5. Providing Education
DILEMMA: You are the CEO of a struggling advertising agency that is near bankruptcy. A huge cigarette company loves your work and has offered you a contract to create advertisements promoting their products. Your mother died from lung cancer from second hand smoke exposure at her workplace. But this contract would save your business and give you valuable exposure and contacts. What would you do?
6. Making and Using Tools and/or Technology
DILEMMA: You are a research scientist who has developed a drug that will prevent heart disease. Your husband runs the factory that manufactures surgical supplies for many hospitals. You know that your discovery will eliminate the need for large quantities of surgical supplies. Many people and neighbors who work at these factories would lose their jobs. Do you release the drug?

7. Providing Recreation
DILEMMA: You have the deciding vote at a City Council meeting. The issue is how to spend tax dollars. Half of the council believes the money should go to building a new arena for your professional basketball team. This team will generate more money for the city. The other half of the council wants to attract quality teachers by providing a needed pay raise. How do you vote?

8. Organizing and Governing
DILEMMA: You are running for President of Student Council. The vote has been tallied and you are declared the winner. Then you find one class ballot on the floor that was not counted. This ballot would make your opponent win. What do you do?

9. Moral, Ethical, and Spiritual Behavior
DILEMMA: You are a patient with a terminal illness. You have the opportunity to prolong your life through an experimental treatment that may or may not work. Do you attempt the experimental treatment?

10. Aesthetic Needs
DILEMMA: Your best friend has asked you to help paint graffiti on the football field at your rival school. You refuse, but your friend proceeds to paint obnoxious words. The principal expels someone who is innocent. Your friend has not stepped forward. Do you turn him in, knowing that he could be arrested?

PRODUCTIVE THINKING SKILLS
DIVERGENT/Creative Thinking

1. BRAINSTORM MODEL
A. BRAINSTORM ALL OF THE ________________:
   AHA #1. heart-healthy foods that you can purchase at fast food restaurants
   AHA #2. parts of the heart
   AHA #3. ways people communicate
   AHA #4. ways to preserve your heart
   AHA #5. negative aspects related to smoking
   AHA #6. artificial products
   AHA #7. things that make your heart beat faster

B. BRAINSTORM AS MANY ____________ AS YOU CAN THINK OF.
   AHA #8. pumps
   AHA #9. things that can be transplanted
   AHA #10. expressions that have the word “heart” in them
   AHA #11. ways to express your love
   AHA #12. careers that affect
   AHA #13. ways that animals show emotion
   AHA #14. books that have heart

C. HOW MANY WAYS CAN YOU COME UP WITH TO ________________?
   AHA #15. break the heart
   AHA #16. make your heart beat faster
   AHA #17. encourage others to participate in physical activities

2. VIEWPOINT MODEL (Human or Animate) (Use Cultural Literacy Terms)
A. HOW WOULD A(N) ____________ LOOK TO A(N) ____________?
AHA #1. strawberry fruit roll-up strawberry
AHA #2. stethoscope chest
AHA #3. heart brain
AHA #4. pacemaker heart
AHA #5. tobacco lungs
AHA #6. chest scalpel
AHA #7. oxygen blood cells
AHA #8. circulatory system digestive system

B. WHAT WOULD A(N) ____________ MEAN FROM THE VIEWPOINT OF A(N)______?
AHA #9. donor heart the new body
AHA #10. farmer the heartland
AHA #11. conversation heart Cupid
AHA #12. cardiologist diseased heart
AHA #13. researcher rat
AHA #14. child book
AHA #15. hug heart
AHA #16. lie conscience
AHA #17. pulse rate veins

C. HOW WOULD ____________ VIEW THIS?
1. Anne Frank (receiving Hitler’s heart)
2. Denton Cooley (receiving a heart transplant)
3. Mary Cassatt (domestic violence)
4. Imhotep (advances in medical technology)
5. Robert Jarvik (using an artificial heart to save the life of a criminal)
6. St. Valentine (divorce)

3. INVOLVEMENT MODEL (Personification/Inanimate object brought to life)
A. HOW WOULD YOU FEEL IF YOU WERE A(N)__________?
AHA #1. unhealthy heart
AHA #2. heart
AHA #3. blood cell
AHA #4. plaque
AHA #5. cigarette
AHA #6. artificial heart
AHA #7. pair of tennis shoes

B. IF YOU WERE A(N) ________, WHAT WOULD YOU (SEE, TASTE, SMELL, FEEL)?
AHA #8. ventricle smell
AHA #9. transplanted heart feel
AHA #10. tear hear
AHA #11. chocolate feel
AHA #12. ambulance see
AHA #13. animal research laboratory see
AHA #14. page of a book taste

C. YOU ARE (A) _________________. DESCRIBE HOW IT FEELS.
AHA #15. jealousy
AHA #16. conscience
AHA #17. sweat

4. CONSCIOUS SELF–DECEIT MODEL
A. SUPPOSE _________________. WHAT __________________.
AHA #1. Suppose all foods are heart healthy. What would you eat?
AHA #2. Suppose your heart could take a break. What would it do with its free-time?
AHA #3. Suppose the skeletal and respiratory systems traded places. What would happen?
AHA #4. Suppose plaque was beneficial to arteries. What would happen?
AHA #5. Suppose your lungs were lined with tar. What would you do to get rid of it?
AHA #6. Suppose you were a medical tool. What would you choose to cure?
AHA #7. Suppose you were a jump rope. Where would you go?
AHA #8. Suppose you were a blood cell and you wanted to go the wrong way.
AHA #9. Suppose you were a donor heart. Who would you choose to be in?

B. YOU CAN __________________. WHAT __________________________?

AHA #10. You can have all of the love in the world. How would you use it to create harmony?
AHA #11. You can have all of the chocolate that you want. How could you use it to defend yourself?
AHA #12. You can be anything you want to be. What would you choose to be?
AHA #13. You can be inside any animal. What would you choose?
AHA #14. You can be any character in a book. Who would you choose?
AHA #15. You can prevent hearts from breaking. Whose would you choose to mend?
AHA #16. You can make one bad choice without having a guilty conscience. What would it be?
AHA #17. You can have all of the sports balls. What would you choose to play?

5. FORCED ASSOCIATION MODEL (Use cultural literacy terms here)
A. HOW IS A(N) _________ LIKE A(N) _________?
   AHA #1. vegetable heart
   AHA #2. arteries highway
   AHA #3. brain mail carrier
   AHA #4. disease computer
   AHA #5. cigarette tree
   AHA #6. stethoscope pitcher
   AHA #7. pulse rate cow

B. GET IDEAS FROM _______ TO IMPROVE _________.
   AHA #8. the vena cava circulation
   AHA #9. immune system the military
   AHA #10. heartland government
   AHA #11. Cupid attitude
   AHA #12. doctors the environment
   AHA #13. rats sandwiches
   AHA #14. Edgar Allen Poe gardens

C. I ONLY KNOW ABOUT _______. EXPLAIN _______ TO ME.
   AHA #15. sorrow happiness
   AHA #16. goodness evil
   AHA #17. exercise rest

6. REORGANIZATION MODEL
A. WHAT WOULD HAPPEN IF _________ WERE TRUE?
   AHA #1. the food pyramid was reversed?
   AHA #2. your heart helped you to breathe?
   AHA #3. your body systems spoke different languages?
   AHA #4. no one had heart disease?
   AHA #5. smoking was illegal?
   AHA #6. artificial hearts were invented 100 years ago?
   AHA #7. there were no organized sports?
B. SUPPOSE _________________ (HAPPENED)
WHAT WOULD BE THE CONSEQUENCES?
AHA #8. lungs pumped blood?
AHA #9. you could pick who got your heart?
AHA #10. Anne Frank had not been so optimistic in her diary?
AHA #11. everyday was Valentine’s Day?
AHA #12. no one wanted to be a doctor?
AHA #13. no animals had ever been used for research?
AHA #14. all stories had happy endings?

C. WHAT WOULD HAPPEN IF THERE WERE NO _____?
AHA #15. pain
AHA #16. conscience
AHA #17. playgrounds

CULTURAL LITERACY

<table>
<thead>
<tr>
<th>Names</th>
<th>Phrases</th>
</tr>
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<tbody>
<tr>
<td>Imhotep</td>
<td>mending a broken heart</td>
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<td>Hippocrates</td>
<td>the heart of the matter</td>
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<td>Erasistratus</td>
<td>absence makes the heart grow fonder</td>
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<td>Leonardo Da vinci</td>
<td>love at first sight</td>
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<td>William Harvey</td>
<td>does my heart good</td>
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<td>Willem Einthoven</td>
<td>have a heart</td>
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<td>Daniel H Williams</td>
<td>to my heart’s content</td>
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<td>Deneton Cooley</td>
<td>heart of stone</td>
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<td>Robert Jarvik</td>
<td>by heart</td>
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<tr>
<td>Pan</td>
<td>cross my heart</td>
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<tr>
<td>Juno</td>
<td>wears his heart on his sleeve</td>
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<td>Saint Valentine</td>
<td>his heart is in the right place</td>
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<tr>
<td>Mary Cassat</td>
<td>had a broken heart</td>
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<tr>
<td>Anne Frank</td>
<td>everything your heart desires</td>
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<td>home is where the heart is</td>
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<td>queen of hearts</td>
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<td>Deep in the heart of Texas</td>
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<td>change of heart</td>
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<td>from the bottom of my heart</td>
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Vocabulary

911                     coronary bypass
aerobic                 corazons
anaerobic               digestive system
donor heart             emotion
atria                   exercise
arteries                food pyramid
artificial heart        heart
atrium                  heart attack
balanced diet           heart beat
blood                   heart disease
blood clot              heart failure
blood vessels           heart rate
cardiologist            heart transplant
circulatory system
nervous system  rejection
nutritionist  respiratory system
oxygen  skeletal system
pacemaker  stethoscope
paramedic  surgeons
phlebotomist  symptoms
pulse  tobacco
pulse points  Valentine’s Day
pulse rate  vena cava
pump  ventricles

RESOURCES

I. Bibliography – Teacher/Professional Books and Resources

II. Bibliography – Student Books on loan from Media Center for classroom use
19. Vander Hook, Sue, Heart Disease, Smart Apple Media, Minnesota, 2001

III. Educational Films/Videos
1. Anne Frank
2. Heart Power! Game Show
3. Heart Power! Talk Show
4. The Magic School Bus Inside the Human Body

IV. Commercial Films/Videos
1. Arthur Makes the Team
2. Inside the Human Body

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3. The Paper
4. Parent Trap
5. Patch Adams
6. Rainmaker
7. Rocky
8. Shop 'Til You Drop
9. Vision Quest
10. Where the Red Fern Grows
11. Wild Hearts Can’t Be Broken
12. Wizard of OZ

V. Literature/Language Arts (on reserve in Media Center)

Fiction
1. Brown, Marc. Arthur Makes the Team,
2. Brown, Marc. Arthur’s Valentine’s Day,
3. Penn, Audrey. The Kissing Hand,

Non–Fiction
2. Beres, Samantha. 101 Things Every Kid Should Know about the Human Body.

Poetry
1. “Hearts” by Lois Simmie
2. “Homework Machine” by Shel Silverstein
3. “Love Is..” by Greg Scelsa
4. “If I Can Stop One Heart From Breaking” by Emily Dickinson
5. “Smoking in the Cellar” by Jack Prelutsky
7. “The Spratt Family” by Father Gander
8. “Valentine’s Day”
9. “Who Invented Running” by Pete Garvey

Art Works
The work of Mary Cassat

Music
1. “Achy Breaky Heart” by Billy Ray Cyrus
2. “Career Choice” by BenLee
3. “Change of Heart” by Cyndi Lauper
4. “Doctor, Doctor, Give Me the News” by The Who
5. “Emotions” by BeeGees
6. “Every Beat of my Heart” by Gladys Knight
7. “Heart Attack” by Billy Joel
8. “Heartland” by George Strait
9. “Heart Trouble” by Martina McBride
10. “I Will Survive” by Gloria Gaynor
11. “The More We Get Together” Traditional
12. “Three Blind Mice” Mother Goose, Traditional

VI. Resource People/Mentors
Nutritionist
Phlebotomist
Operating Room Technician
School counselor
Candy maker
Card maker
Veterinarian
Physical Education teacher
Cardiologist

VII. Field Trips
Hospital
Research Lab

VIII. Other Material (CD–ROM, Laser Disc, Internet sites, etc.)
3. “Gene Transfer Improves Function of Aging Hearts in Animals”
   http://www.science daily.com
4. “Many Animals Contribute to Medical Research Advances”
   http://www.pirweb.org/animalhelp.
10. “Crusades for Kids: TV’s ‘Hercules’ is a Real-Life, Modern-day Hero”
    http://www.findarticles.com
13. “Artificial Heart Recipient Improving” and “Artificial Heart Maker Criticized”
    http://www.msnbc.com/news
14. “Heart Functions, Structures, and History and Diseases” http://encarta.msn.com
17. “High Cholesterol and Heart Disease in Women” http://www.menopausersx.com