

Instructor's Notes

Lesson: Healthy Hearts

Objectives:

- Encourage healthier lifestyles by showing how the heart functions and the importance of good health for your heart
- Increase knowledge in all of the content areas by using the heart as a focus for instruction
- Utilize various critical thinking skills related to the heart
- Foster a love for learning by providing hands-on activities

Subjects: Reading, writing, science, math, social studies, health, and critical thinking

Procedure:

1. Introduce "A Prescription for Living" and the following pages, which outline what is important for a healthy life. Discuss what they know about heart disease, what causes it, and how to prevent it.
2. Read the handout, "American Heart Disease". As a math extension, and to reinforce who is at the greatest risk for heart disease, ask students to graph the percentages of groups who die from heart disease. Fifty million Americans have high blood pressure. What percentage is this of the total population? This reading also lists countries at the greatest risk for cardiovascular death. As a social studies extension, find those countries on the globe. What, if anything, do those countries have in common? Who has the lowest occurrence? Why do you think this is true?
3. Read and discuss the handout, "Can You Beat It?" concerning diabetes. While diabetes is not actually a form of heart disease, it often contributes to heart disease. Most people know someone who has diabetes. How has it changed their life? Use this as a writing prompt to write on "ways an illness changes someone's life" or "ways one can deal with an illness or disability".

4. Use the diagram of a heart, its valves, ventricles, and atriums to show students what their heart looks like. Discuss where the heart is located in the human body. What is its function and why is it so important to take care of our heart? Read "An Explosive Situation" and discuss heart attacks, the warning signs, and what to do in this situation. If students wish, they can pursue some further research on the Internet of how the heart is connected with the rest of the body through the circulatory system.
5. Conduct an experiment with "Measuring Your Pulse Rate". Ask students to measure their heart rate lying down, walking, and after jumping jacks. This exercise is not only effective to show how our hearts are affected by everything we do, it also lends itself to some math extensions figuring percentages with the numbers and creating and reading graphs with the information the students have generated.
6. Give a clear visual and kinesthetic representation of the importance of an efficiently working heart. Use the "Move those Beans" Heart Healthy Activity to have the students work as a group to show the difference between an efficiently and an inefficiently working heart.
7. A fascinating website, <http://hin.nhlbi.nih.gov/atpiii/calculator.asp>, will calculate your 10-year risk of having a heart attack. Students have to know their cholesterol level to use this site, but if there is a local screening available, this could be a valuable tool to use in class.
8. Read the article, "Patient Gets First Totally Artificial Heart". Discuss pros and cons of this procedure. Are there any dangers? Would they want a loved one or themselves to have this procedure? What kinds of research had to be completed before this procedure could be developed? Where did this procedure take place? Further research on the Internet could be completed to find the most recent findings in this area.
9. Cut out the heart tangram and allow students to rearrange them to make different things! This is a great critical thinking exercise and lots of fun!