Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Grade 3: Lesson Plan 1

Anatomy: What Does The Heart Do?

Goals

Students will understand the basic function of the heart and identify its main parts.

Instructional objectives

Students will be able to

1. Identify the heart in relation to other main structures in the body, including the lungs, brain, and stomach.
2. Identify the basic physical characteristics of the heart.
3. Identify the main parts of the heart.

Background information

The heart sits between the two lungs, slightly to the left of the center of the chest. It acts as a pump, pushing blood through the body. The heart's walls are made of thick muscle. The heart has four chambers. The left and right side of the heart are separated by a thick wall of muscle called the septum. Within the heart, there are 4 heart valves, which regulate blood flow. When the heart squeezes (or contracts), it pushes oxygen-rich blood out of the heart and through the arteries to the organs, tissues, and cells of our bodies. The largest artery in the body is called the aorta. All blood that travels out of the heart passes through the aorta on its way to other parts of the body. This blood reaches the rest of the body through arteries that branch out and become smaller the farther they are located from the heart. The veins carry oxygen-poor blood back to the heart. The arteries and veins carry blood in a circle. The process of blood flow within your body is called circulation. The heart beats each time blood flows in and out.

Materials

1. Chart paper and markers
2. Illustration: Car (Activity 3–A)
3. Illustration: "The Main Organs" (Activity 3–B)
4. Worksheet: "Where Is Your…?" (Activity 3–C)
5. Worksheet: "What Does My Heart Look Like?" (Activity 3–D)
6. Worksheet: "The Inside of Your Heart: The Chambers" (Activity 3–E)
7. Worksheet: "The Inside of Your Heart: The Septum" (Activity 3–F)
8. Worksheet: "The Inside of Your Heart: The Valves" (Activity 3–G)
9. Worksheet: "The Inside of Your Heart" (Activity 3–H)
10. Rubber tubing, kitchen basting utensil, plastic bottles, funnel (or eye droppers and straws), water
11. Optional: Classroom computer with Internet access
12. Optional: Stethoscope

Introduction

Place illustrations of a car and the human body on posters at the front of the room (Activities 3–A and 3–B). On chart paper, have a T-chart prepared. Label one side of the T with the word "Car." Down the side of the chart, write the following:

- What does it use for fuel?
- What keeps it in good condition?
- What causes it to have problems?

Ask students to think about a car when considering the questions on the chart. Allow students to share their ideas through group discussion, as you record their responses on

©2011 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 1

Anatomy: What Does the Heart Do?

the T-chart. Ask students how they would answer if asked the same questions about the human body. Write the word "Body" on the T-chart, and record students' ideas. What do our bodies use for fuel? What keeps our bodies and hearts in good condition? What causes our bodies to become sick or tired? Expand on the car-body analogy, as students discuss how a car pumps oil through its parts, just as the heart pumps blood to parts of the body. Discuss how the ways in which we take care of a car determine its condition—just as our behaviors affect the health and functioning of our bodies.

Lesson procedures/activities

1. Explain to students that to take care of a car—to keep it running well—we need to have information about its parts and how they work. Likewise, we need to have information about the body and how it functions so we can take care of ourselves. Make another T-chart with the "Car" and "Body" labels at the top. Ask the class to brainstorm parts of a car and then try to think of similar parts of the body that have similar functions. (For example, many cars are controlled by computerized systems. The brain functions as the control center for our bodies.) After students have developed a list that indicates they understand the concept of body parts and systems, present an illustration of the human body with the main parts and structures identified (Activity 3–B). Discuss the general functions of the brain as the control center of the body, including reflexes; automatic functions, such as blinking, breathing, and digestion; sensory perception; and thinking processes, such as decision-making, etc. Discuss the general function of the lungs as the organs involved in the exchange of gases in the body—taking in oxygen and releasing carbon dioxide. Discuss the general function of the digestive system, which involves the breaking down of food into small parts so that the body's cells can receive the nutrients. Tell students they will be focusing on the function of the heart and its parts.

2. Have students complete the worksheet "Where Is Your ….?" (Activity 3–C). Have them draw the brain, lungs, heart, and stomach in the correct locations and write a brief description of the function of each. You may offer the students a "word bank" or vocabulary list to help them in writing their descriptions.

3. Ask students if they recall how to describe the size of the heart. Have them hold up their fists and explain that their hearts are about the size of their fists and that both will continue to grow at the same rate.

   Show them that the heart sits between the lungs, just to the left of the center of the chest (reference Activity 3–B). Ask students if they know what the heart is made of. Have students flex their biceps muscle and then relax it. Tell them to use the hand on their other arm to feel the difference in the muscle. Explain that the muscles in the arms and legs are *skeletal muscles*, and that you have to think to control their movement. But the muscle in the heart is a *smooth muscle*, which contracts and relaxes on its own, even while a person is sleeping. Ask students if they have to think about their heart pumping. Ask what would happen if they had to think about making their heart pump, and what would happen if they forgot or needed to sleep. Students may think of other body functions that occur without our having to think about it. (Some were mentioned earlier regarding brain function: blinking, digesting, breathing.)

4. Display the worksheet "What Does My Heart Look Like?" (Activity 3–D) as a transparency. Discuss the arteries that lead from the left side of the heart that take oxygen and nutrients through the blood vessels of the body. Show how the blood travels in a circular path back to the right side of the heart, where the blood is then pumped to the lungs. Oxygen-rich blood is then pumped back to the heart. (Ask students if they remember the part of the car that pumps oil to its parts.) Give students the opportunity to experiment with a pumping action by using rubber tubing and a kitchen basting utensil; an eye dropper and a straw; or some similar device. Have them use the device to pump water from a cup and release it into a plastic bottle.

5. If your classroom has a computer with Internet access*, go to the Texas Heart Institute's website (texasheart.org/projectheart) and give students the opportunity to view an animated version of the heart. Explain that the four chambers of the heart are like rooms in a house. The heart also has four valves, which act like doors, allowing blood to flow in and out of each chamber. Show students the wall

©2011 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 1

Anatomy: What Does The Heart Do?

between the right side and the left side of the heart, and identify this thick wall of muscle as the septum. Explain to students that every time the heart beats, blood flows in and out of the heart. When the heart beats, its valves open and close, making the lub-dub sound that you hear when you listen to the chest. Ask what instrument doctors and nurses use when they listen to the heart. Using an actual stethoscope (or a model made from rubber tubing and a funnel or the top section of a plastic bottle), allow students to listen to their own heartbeats. Show them how they can feel their heartbeat at pulse points on the inside of the wrist and the front of the neck and explain that this is the blood being pushed through the arteries. Help students in locating their pulse by having them place two fingers from one hand on the wrist of the opposite hand.

* *(If a classroom computer is not available, Activities 3–E, 3–F, and 3–G may be used as transparencies for instruction.) Provide Activity 3–H for students to complete.*

6. As students are sitting, ask them to find their pulse again. Ask them to stand and march in place for one minute and then have them check their pulse again. Then ask them to do jumping jacks for 30 seconds and have them check their pulse again. Draw their attention to other signs of an increased heart rate. Do their faces feel warmer? When they put their hands in front of their mouths, do they find that they are breathing harder? Are they perspiring a little? Is their pulse quicker? Guide them in a discussion about the types of activities that would increase the heart rate and exercise the heart. Have them rate from slowest to quickest which activities will raise the heart rate and explain their ideas. Tell students that they will have the opportunity to test their predictions in a later lesson. (Students can also visit Project Heart online and listen to a normal heartbeat and a heartbeat after exercise in the Listen section.)

Guided practice

Using their worksheets and observations, ask students to Think-Pair-Share with a partner about the different things they have learned about the heart and other parts of the body. Tell the class they will each have one minute at a time to talk. You will call "time" when it is time to switch. Have partners switch after one minute of talking until it appears they have covered the information. Partners should put a check mark by each item on their worksheets when that information is covered by their partner.

Independent practice

Have students name the system and the parts of the system that circulate blood in the body. Have them identify the main parts of the heart and write a description of how the heart works.

Adaptations

Students who have difficulty with writing may have their assignments adapted by allowing them to verbalize their responses, demonstrate, or illustrate in drawings. Students with physical challenges can approximate physical activities, such as swinging their arms instead of marching.

Extension

Have students conduct a Web search to research the heart structures of other animals. Have them compare and contrast the hearts of other animals with the human heart, and then prepare a report to share with the class. Students will be encouraged to include pictures and illustrations.

Assessment

You may use observations of students during class activities and responses for written activities to determine their understanding of the lesson objectives.

Objective	Demonstrated lesson objective	Partially demonstrated lesson objective	Did not demonstrate understanding of the objective
Identify by location the heart, brain, lungs, stomach	X		
Identify the heart's physical characteristics		X	
Identify the main parts of the heart	X		

©2011 Texas Heart Institute
texasheart.org

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Grade 3: Lesson Plan 2

Nutrition: Making Healthy Food Choices–Go Heart!

Goals

Students will understand that personal health decisions and behaviors affect their health. They will recognize that the body needs foods from all the food groups to receive the nutrients it needs to grow and stay healthy.

Instructional objectives

Students will be able to

1. Identify the basic food groups.
2. Discriminate healthy food choices from unhealthy food choices.
3. Describe the effects of eating too much fat and sugar.
4. Recognize that the size of food portions depends on the age and activity level of a person.

Background information

The basic food groups have been modified over the years. Essentially foods are categorized as fruits, vegetables, grains, meat (including eggs, beans, and nuts), milk, and oils (fats). It is important to include foods from all of the basic food groups in our daily diet to provide our bodies with the nutrients we need for growth and health maintenance. Nutrients include vitamins, minerals, proteins, carbohydrates, fiber, and fats. The amount of food that a person should eat depends on his or her age and activity level. Foods high in saturated fats and sugar should be limited. Saturated fats raise our cholesterol levels. A diet that does not restrict saturated fat can lead to heart disease. Foods that are high in sugar content should be limited or restricted because they are "empty-calorie" foods, with little or no nutritional value. High-sugar foods can also lead to cavities in our teeth.

Materials

1. Poster or transparency of a traffic light
2. Red, yellow, and green hula hoops
3. Pictures of different foods, mounted on index cards
4. Poster of the basic food groups or MyPyramid
5. Worksheet: "Heart-Smart Meals and Snacks" (Healthy) (Activity 3–K)
6. Worksheet: "Heart-Smart Meals and Snacks" (Unhealthy) (Activity 3–L)
7. Worksheet: "Today's Lunch" (Activity 3–M)
8. Worksheet: "Heart-Smart Choices"/"Heart-Smart Student" certificate (Activity 3–N)
9. Scissors, glue, crayons

Introduction

Present a poster or transparency showing a traffic light. Ask students what they would do if they were driving a car and came to a red light (stop). Follow with the other traffic signals, asking about the meaning of the yellow light (slow down) and the green light (go). What if we could use the same type of signals to tell us what to eat to be healthy? It would be great if we could make choices that simply.

Lesson procedures/activities

1. Explain to the students that healthy foods, such as fruits and vegetables, are good for our hearts and that junk food and desserts usually are not. If we used traffic signals to help us make healthy choices, what signal could we use for fruits and vegetables?

©2011 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 2

Nutrition: Making Healthy Food Choices–Go Heart!

(Green for "go".) Tell students we should have 3 to 5 servings of fruits and vegetables every day. Ask students to look at a chart of the basic food groups or of MyPyramid and try to decide which foods we need to eat in moderation. What traffic signal would we use for foods like pork chops, eggs, and hamburger? (Yellow for "slow down".) What signal would we use for foods that have a lot of butter or sugar in them? (Red for "stop".) Explain to students that we need to eat a variety of foods from each food group to get enough of the nutrients our bodies need to grow and stay healthy. Different foods have different nutrients. Ask students if they would agree that apples are a healthy food. But what would happen if we ate just apples?

Discuss with students the importance of portion sizes and amounts of food. Ask students if "go" means that a person can eat all he or she wants of those kinds of foods. Guide them in recognizing that the amount of food a person eats from any of the food groups should depend on the age and activity level of the person. Ask questions to elicit discussion about specific categories of people. For example, should we expect a baby to eat as much as a 12-year-old girl who plays baseball everyday? Should an elderly adult who gets very little vigorous exercise eat as much as a man who works a construction job everyday? Ask students to consider what would happen if a person eats more or less than he or she should for that person's age and level of activity. Why does age affect the amount of food a person should eat?

2. Explain to the class that some of the nutrients that we need to help us grow and stay healthy are vitamins and minerals that help different parts of our bodies. Protein helps our bodies and muscles grow and stay strong. Carbohydrates give us energy. Fiber helps us digest our food. Fats are also a source of energy. Have students look at the different food groups to see if they can guess which nutrients each group would contain.
   - Fruits: Name some of the fruits that you like to eat. What nutrients do they contain? (vitamins, carbohydrates, fiber)
   - Vegetables: Name some of the vegetables that you like to eat. What nutrients do they contain? (vitamins, minerals, fiber)
   - Grains: Name some grain-containing foods that you like to eat. What nutrients do they contain? (carbohydrates, fiber)
   - Meat and Beans (this group also contains eggs and nuts): Name some of these types of food that you like to eat. What nutrients do they contain? (protein, vitamins, minerals)
   - Dairy (MyPyramid calls this group simply the "Milk" group, though it also contains yogurt and cheese): Name some of these foods that you like to eat. What nutrients do they contain? (protein, vitamins, minerals)
   - Oils (fats): Can you name some types of fats? Saturated fats (explain term; examples are butter, lard, margarine). Unsaturated fats (explain term; examples are olive oil, canola oil).

   Which foods in large amounts would not be good for our bodies? Talk about how foods high in fat are also high in cholesterol, which can lead to heart disease and stroke. High-fat foods also cause weight gain. Also mention that foods high in sugar content are also bad for us. High-sugar foods lead to tooth cavities, can cause diabetes, and lead to weight gain.

   Why would we need to eat some foods, such as meat, eggs, and yogurt, in moderation? (Allow discussion about why we need to choose lean meats and low- or no-fat milk products, etc.)

3. Place 3 hula hoops (red, yellow, green) on the floor. Pass out a folded piece of paper with the name and picture of a food to each student. Line up students in teams of three to four members. Tell them that on the word "Go," they must look at their food on the piece of paper and decide whether it is "go" food, a "slow down" food, or a "stop" food. Have students place the piece of paper in the correct hoop. After they have made their choice, they must tell the class the reasoning behind choosing the red, yellow, or green hoop. They may include in their reasons the nutrients contained in the food or the food group to which the food belongs. Have students continue until all teams have had a turn.

   After all students have had a turn and the foods are placed in the colored hoops, take all of the foods placed in the green hoop and ask the students if anyone wants to make a change. Review with the students that "go"

©2011 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 2

Nutrition: Making Healthy Food Choices–Go Heart!

foods are good for us and can be eaten often. Repeat this process with the foods in the yellow hoop. Review with the students that "slow down" foods can be good for us but need to be eaten in moderation. (For example, meat is a good source of protein, but some meat has more fat in it and should be eaten in moderation.) Repeat this process for foods in the red hoop. Review with students that "stop" foods contain too much fat or too much sugar.

Guided practice

With table groups, have students plan a healthy breakfast, lunch, dinner, and two snacks for a single day. They will plan a pretend trip to the grocery store to purchase items and ingredients needed to prepare the meals and snacks. Remind them to make certain their meals are balanced and include foods from different food groups. Have them write the answers to the following questions:

- What foods did you plan for each meal?
- What foods did you place in your shopping cart?
- Did you make sure each meal included foods from different food groups?
- Were you tempted to buy food items that have little nutritional value or were unhealthy choices? If so, what were they?
- Did commercials or food packaging play a role in your food choices?
- Did you decide to substitute a healthier choice? If so, what was your choice and why did you choose it?

Allow the groups to share their menus and shopping experiences. Lead a group discussion about nutrition with the class.

Independent practice

Have students complete the worksheets "Heart-Smart Meals and Snacks (Healthy Choices)" (Activity 3–K) and "Heart-Smart Meals and Snacks (Unhealthy Choices)" (Activity 3–L) using pictures from magazines.

Extension

Provide labels from various food products that can be purchased in most grocery stores. Allow students who are ready for more complex learning and more difficult tasks to examine the ingredients and nutritional facts listed on those food products to determine both the primary food types represented by the first three ingredients and the nutritional value of the product. Have them look for information about calories per serving; serving size; total protein, carbohydrate, and fat content; types of fats; and cholesterol and sodium content. To help students visualize how much a gram is, tell them that 4 grams=1 teaspoon of sugar. So, if a product lists 8 grams of sugar, they divide that number by 4; they can then visualize 2 teaspoons of sugar in that particular serving of food.

Have students conduct a Web search to find the recommended daily amount of nutrients for different age

Assessment

Students' understanding of the lesson objectives can be measured by observing them in group activities and by assessing their independent practice work.

Objective	Demonstrated lesson objective	Partially demonstrated lesson objective	Did not demonstrate understanding of the objective
Identified the basic food groups	X		
Discriminated between healthy and unhealthy food choices		X	
Described the affects of eating too much fat and sugar			X
Recognized that portion sizes depend on age of person and level of activity	X		

©2011 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 2

Nutrition: Making Healthy Food Choices–Go Heart!

groups and compare those amounts to what a serving of a particular food provides.

Culminating activity

Using the worksheet "Today's Lunch" (Activity 3–M), have students track their lunch choices for a week and evaluate whether those choices are "healthy" or "junk food." The goal of this food diary is to increase their awareness about healthy food choices.

Challenge

For students interested in keeping a food diary for all meals for one week, challenge them to track their "go" foods by including three to five servings of fruits and vegetables each day. Provide the "Heart-Smart Choices" worksheet (Activity 3–N) for recording their results.

©2011 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 3

Exercise: Exercise for a Strong Heart

Goals

Students will understand the relationship between physical activity and a healthy heart.

Instructional objectives

Students will be able to

1. Describe the long-term effects of daily physical activity on the heart.
2. Distinguish between aerobic and anaerobic exercises.
3. Set personal goals for daily participation in physical activities that increase the heart rate.

Background information

The heart works as a pump to push blood through the body. Oxygen-poor blood from the body flows to the right side of the heart and is pumped to the lungs. Oxygen-rich blood from the lungs flows to the left side of the heart and is pumped out to the body. You can feel your pulse, or heartbeat, by placing your fingers over the artery in your wrist. You can find your heart rate by counting the number of times your heart beats in a minute or by counting the number of times it beats in 15 seconds and multiplying by 4. Exercises that increase heart rate and breathing and that are done regularly will strengthen the heart muscle and improve overall health.

Materials

1. Jump rope or mini trampoline
2. Clock or watch with second hand or a stopwatch
3. Pictures for discussion
4. Illustration: "Car" (Activity 3–A)
5. Worksheet: "Your Pulse" (Activity (3–O)
6. Worksheet: "Exercise: Heart-Smart Choices" (Activity (3–P)
7. Worksheet: "My Heart-Smart Journal"/"Heart-Smart Student" certificate (Activity 3–Q)

Introduction

Show students a picture of a car (Activity 3–A). Ask them what they think would happen if a car stayed in the garage and was not driven (it wouldn't run well; the battery would have to be charged; parts may be stuck because oil has not circulated through the engine, etc.). Have them tell you what kinds of things need to be done to make sure the car is in good working condition. Ask them what would happen if we were not active and mostly sat all day (we would grow weak; our muscles would not get any exercise; we might get sick; we would gain weight; we would be out of shape, etc.). Ask students about the kinds of things we need to do to keep our bodies healthy and strong. Reinforce what they have been learning—we need to eat the right kind and amounts of food and we need to exercise to keep our hearts healthy.

Lesson procedures/activities

Ask students what kinds of activities they like to do. Write the activities on the board as they list them. Ask students to decide which activities are active and which are inactive (e.g., watching television, reading, listening to music). Point out that just as we need to balance our diets, we also need to balance the types of activities we do. We need quiet activities for learning, rest, and recreation, but we also need to include vigorous exercise to make our hearts strong. Different physical exercises do different things for our bodies. Show an example from a video or model some stretching (flexibility) exercises for

©2006 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 3

Exercise: Exercise for a Strong Heart

the students. Ask them to follow along. See if they can determine what this type of exercise does for their bodies (makes them more flexible and relaxes the muscles). Show or model an example of a resistance (strength-building) exercise, such as push-ups or lifting hand weights. Ask them to follow along. (They could even take turns lifting cans of food in each hand.) See if they can determine how this type of exercise would help the body (strengthens muscles and increases endurance). Show an example or model a form of aerobic exercise, such as dancing, jumping jacks, or running. Have students follow along for a couple of minutes, and then ask them what they think this kind of exercise would do for the body (exercises the heart and lungs). Explain that this last type of exercise —the type that makes your heart beat faster—is called aerobic exercise. Aerobic exercise involves the increased need for oxygen. Ask students to think about what kind of exercises would be the opposite of aerobic exercise. Explain that exercise that makes the heart beat faster helps make it strong and healthy. How do we find out how fast our hearts are beating?

Guided practice

Reinforce what the students have been learning about the heart: it works as a pump that pushes blood through the body. Oxygen-poor blood from the body flows to the right side of the heart and is pumped to the lungs. Oxygen-rich blood from the lungs flows to the left side of the heart and is pumped out to the body. Tell them they can feel their pulse, or heartbeat, by placing their fingers over the artery in their wrist. They can find their heart rate by counting the number of times their heart beats in a minute or by counting the number of times it beats in 15 seconds and multiplying by 4.

Show students how to find their pulse. Give them time to locate it. Have them place the first two fingers of one hand over the artery in the wrist of the other hand. Make sure all students are able to locate the pulse in the wrist. Remind them that the heart makes a lub-dub sound when it is beating; therefore, it is a two-syllable sound. A heartbeat is a complete contraction and a complete relaxation of the heart muscle. If it helps, have them count "lub-dub 1, lub-dub 2, lub-dub 3, lub-dub 4" and so on, until they get used to the 2-count heartbeat.

After students have found their pulse and have begun to learn how to count the heartbeats, ask them if they think their heart or their parents' hearts beat faster. Explain that on average, a child's heart beats 10 more beats per minute than an adult's heart. While they are sitting at their desks, ask them to begin counting their heartbeats when you say "go." After 15 seconds, say "stop," and tell them to write down the number on a post-it note that you have provided.

Independent practice

Assist students with either repeated addition or multiplication of their number by 4. Provide the worksheet "Your Pulse" (Activity 3–O) and direct them to chart their pulse number in the "Sitting" column. Ask students to predict which activity on the sheet will cause the heart to beat the fastest. Have them put a star in that column. Give each student a clipboard or something to write on, and take the students outside or to the gymnasium. Instruct students to place their clipboards where they can get to them quickly, and then call them together to make a large circle. Tell them they will walk briskly—but not run—around in the circle until you say "stop." They will need to count their heartbeats while they are walking. This may be difficult, because it is hard to do two things at one time, so you may suggest they quietly count aloud. After they have recorded their heartbeat, help them in adding or multiplying their count. If classroom calculators are available, you may let groups of four or five students use them. Follow through with the other exercises, following the same procedure. (For the jumping exercise, you will need individual jump ropes.) After everyone has recorded their heart rate, give students an opportunity to discuss with a partner what they have learned.

Adaptations

For those students who can't use a jump rope, a mini trampoline may be used, but someone will need to monitor or "spot" for the student. For students who are physically challenged and can't walk, run, or jump, plan to have a parent volunteer or classroom aide available to assist with alternative exercises that the student can perform.

Extension

For those students who are ready for more complex learning and more difficult tasks, have them conduct a Web search to find what the average heart rate is for people of different ages and for different animals. Have them share what they have found with their classmates.

©2011 Texas Heart Institute
texasheart.org

Grade 3: Lesson Plan 3

Exercise: Exercise for a Strong Heart

Assessment

Give students the worksheet "Exercise: Heart-Smart Choices" (Activity 3–N) to complete. Have them draw or cut out a picture from a magazine that represents an activity they like to do. Have them describe the activity, determine whether it is an aerobic or anaerobic activity, and explain how the activity helps their heart. Have them repeat the procedure for an activity that they want to learn. Have them describe the activity, determine whether is aerobic or anaerobic, and write how they think it will help their heart.

You will be able to examine their assignment and combine it with observations of the students' responses during group activities to assess their understanding of the lesson objective.

Objective	Demonstrated lesson objective	Partially demonstrated lesson objective	Did not demonstrate understanding of the objective
Described the effects of daily physical activity on the heart	X		
Set a personal physical activity goal that will exercise the heart		X	
Distinguish between aerobic and anaerobic exercises			X

Challenge

Encourage students to think of a personal goal to increase their participation in activities that will exercise the heart. Using the "My Heart-Smart Journal" (Activity 3–Q), ask them to write down their goal. Give them an example, such as "I will increase my heart-healthy exercises to 30 minutes a day, five times a week." Next, ask them to take their "Heart-Smart Journal" home and share their goal with their parents. Encourage students to involve their families in their plans for healthy activities. Have them record their daily results by placing check marks beside the activities they complete each day. At the end of one week, have student bring their journals to school to share with their classmates.

©2011 Texas Heart Institute
texasheart.org

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Grade 3: Lesson Plan Activity Masters

3–A Car (illustration)

3–B The Main Organs (illustration)

3–C Anatomy: Where Is Your…? (worksheet)

3–D Anatomy: What Does My Heart Look Like? (worksheet)

3–E Anatomy: The Inside of Your Heart: The Chambers (worksheet)

3–F Anatomy: The Inside of Your Heart: The Septum (worksheet)

3–G Anatomy: The Inside of Your Heart: The Valves (worksheet)

3–H Anatomy: The Inside of Your Heart (Assessment) (worksheet)

3–I Shopping Cart (illustration)

3–J Grocery Store (illustration)

3–K Nutrition: Heart-Smart Meals and Snacks (Healthy) (worksheet)

3–L Nutrition: Heart-Smart Meals and Snacks (Unhealthy) (worksheet)

3–M Nutrition: Today's Lunch (worksheet)

3–N Nutrition: Heart-Smart Choices (worksheet)
Heart-Smart Student certificate

3–O Exercise: Your Pulse (worksheet)

3–P Exercise: Heart-Smart Choices (worksheet)

3–Q Exercise: My Heart-Smart Journal (worksheet)
Heart-Smart Student certificate

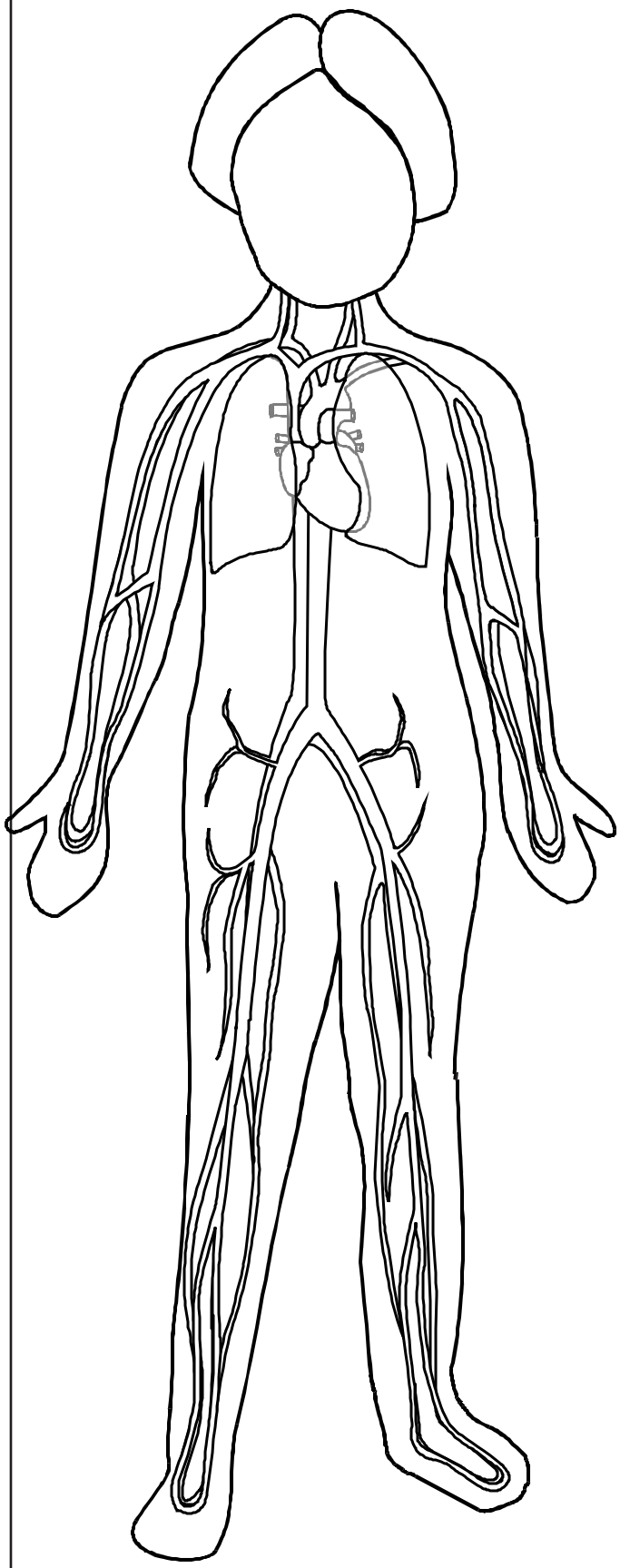
©2011 Texas Heart Institute
texasheart.org

©2011 Texas Heart Institute
www.texasheart.org

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart

Activities for the Classroom



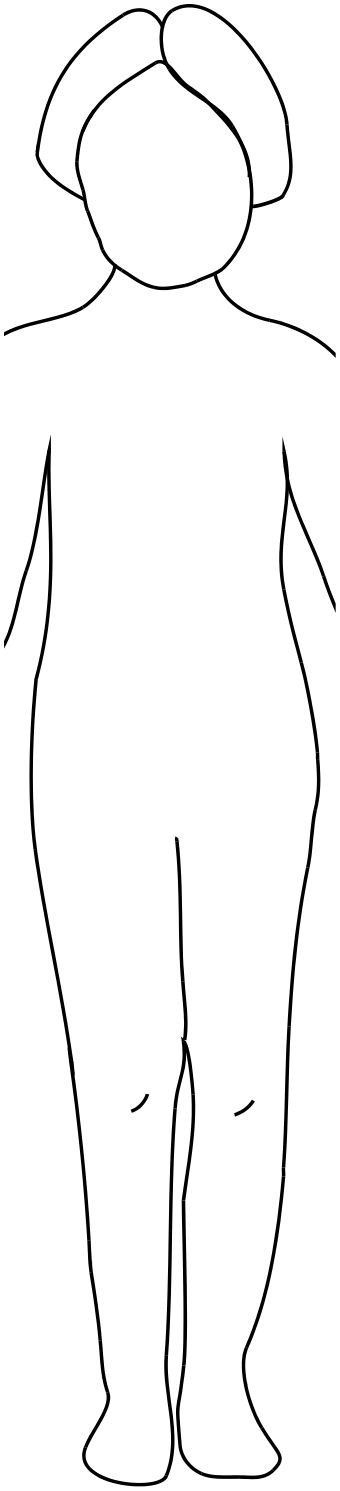
©2011 Texas Heart Institute
www.texasheart.org

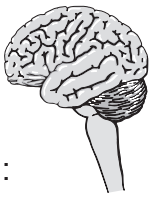
Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

In the picture, draw the brain, heart, lungs, and stomach in their proper place. On the blank lines, write what these organs do.

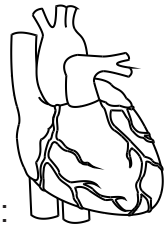
Anatomy
Where is Your ...?





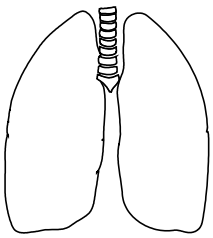
Brain: _____

_____



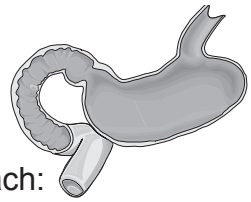
Heart: _____

_____



Lungs: _____

_____



Stomach: _____

_____

©2011 Texas Heart Institute
www.texasheart.org

Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

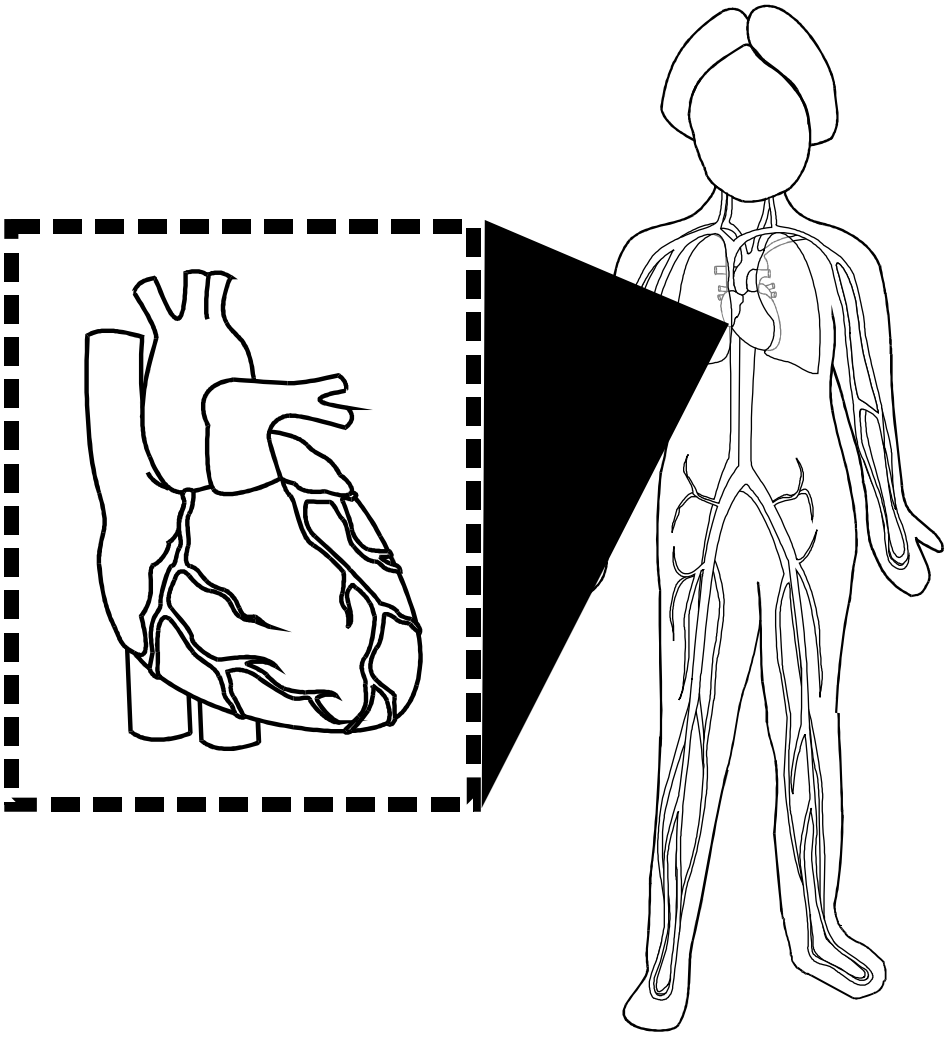
Project Heart
Activities for the Classroom

Anatomy
What Does My Heart Look Like?

Your heart probably doesn't look the way you expected!

Your heart isn't shaped like the ones you see on Valentine's Day cards. In fact, your heart looks very different. It has arteries and veins that move the blood in and out of the heart.

Your heart is about as big as your fist. As you grow, your heart grows too. By the end of a long life, a person's heart may have beat more than 3.5 billion times. In fact, each day, an adult heart beats 100,000 times.



©2011 Texas Heart Institute
www.texasheart.org

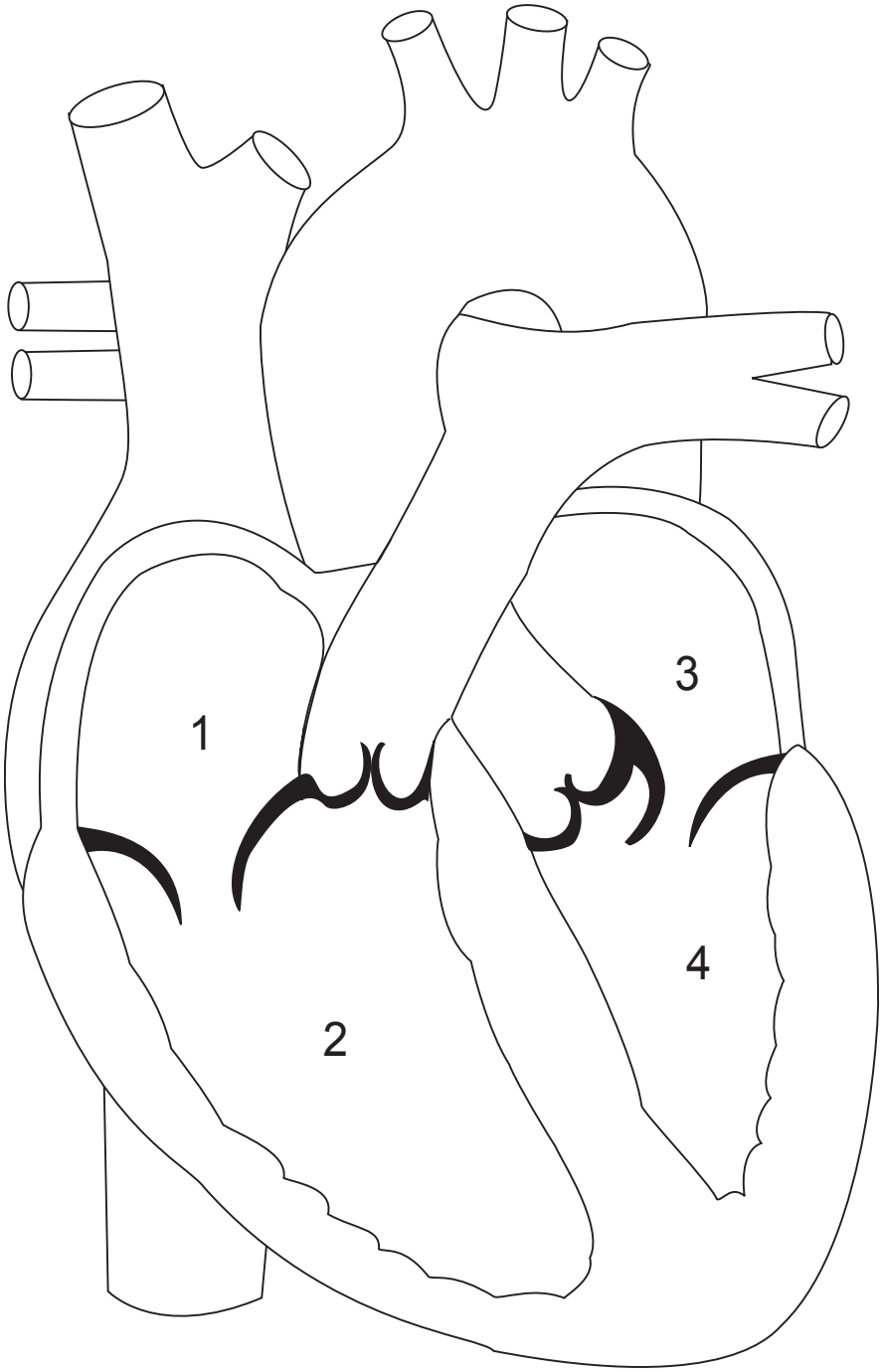
Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Anatomy
The Inside of Your Heart: The Chambers

Imagine that your heart is a house. Inside the house are four "rooms" called chambers.



©2011 Texas Heart Institute
www.texasheart.org

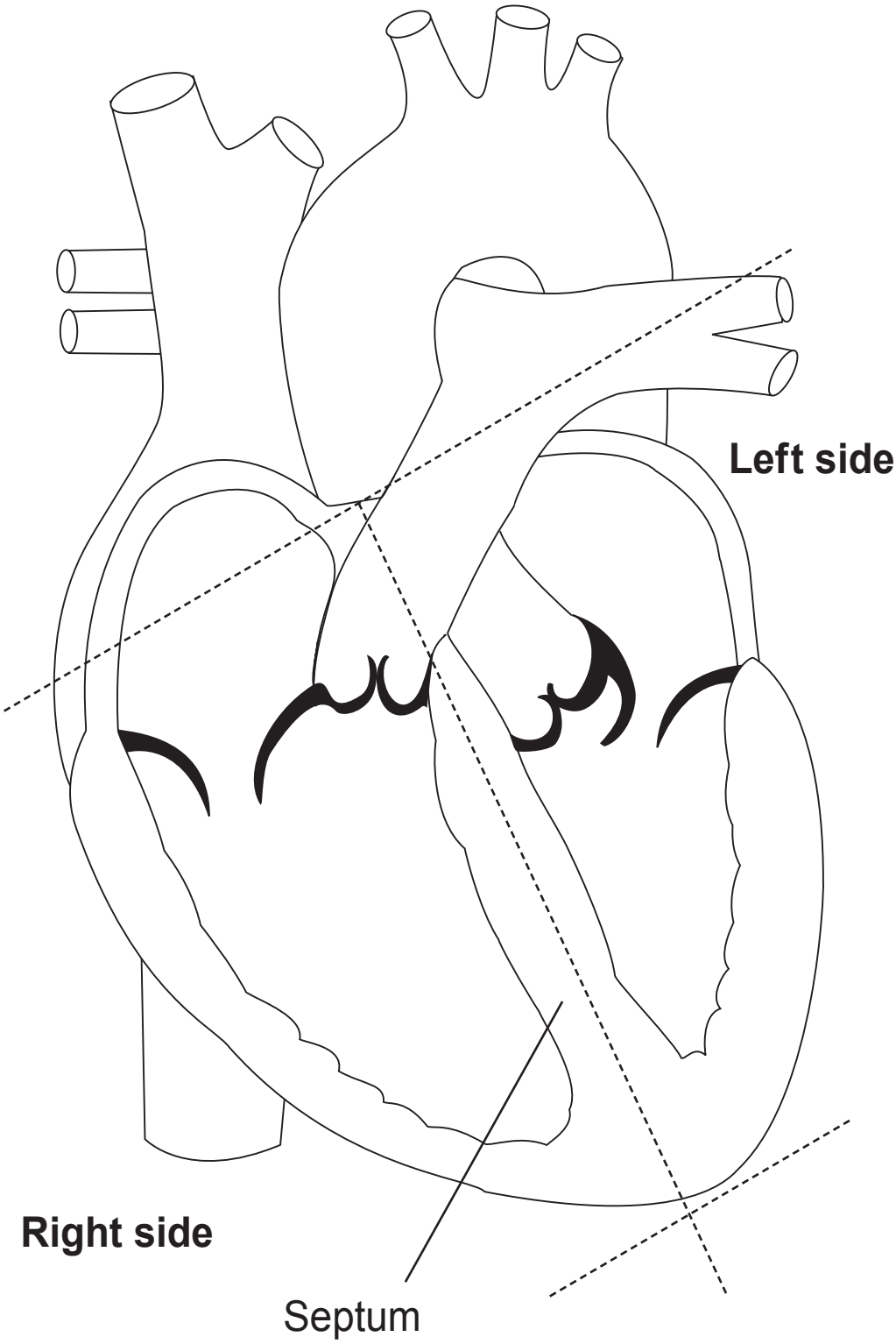
Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

The left side and right side of the house are separated by a wall of muscle called the septum.

Anatomy
The Inside of Your Heart: The Septum



©2011 Texas Heart Institute
www.texasheart.org

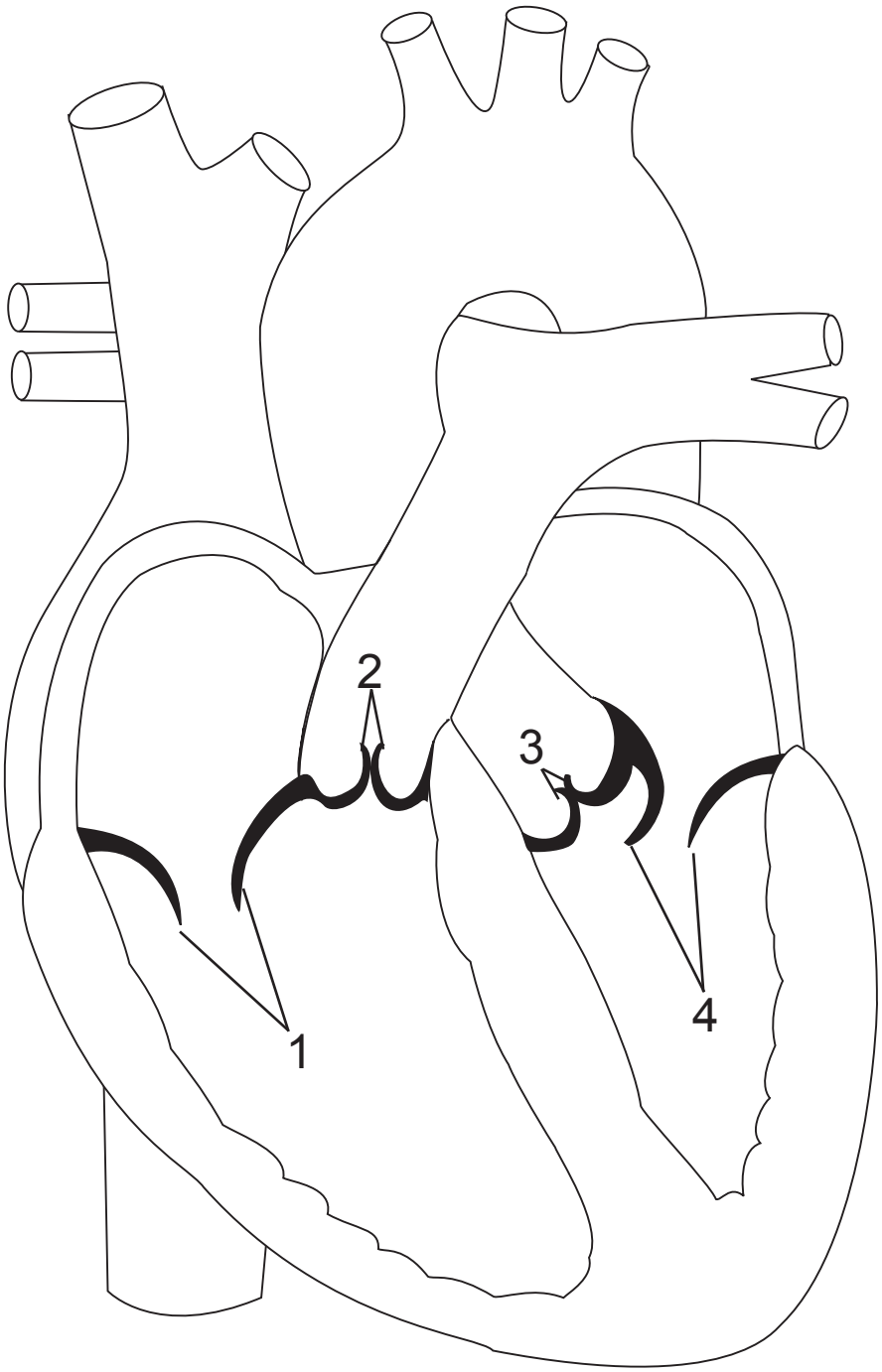
Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Anatomy
The Inside of Your Heart: The Valves

Between each room in the heart is a door called a valve. There are four valves in the heart.



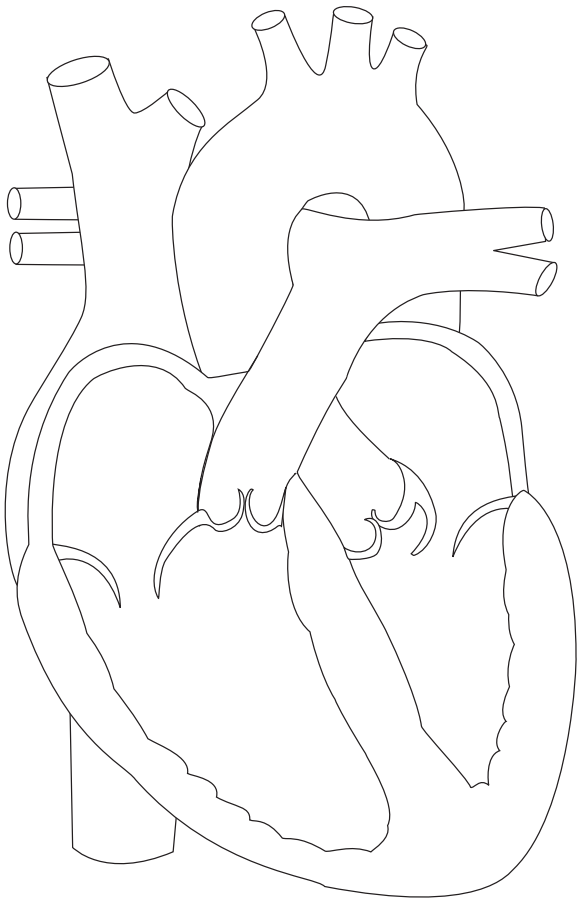
©2011 Texas Heart Institute
www.texasheart.org

Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Anatomy
The Inside of Your Heart: Assessment



1. Chambers are like rooms. Your heart has _____ chambers. (Color the chambers red.)
2. A wall of muscle called the septum separates the _____ sides of the heart. (Color the septum blue.)
3. Valves are like doors that open and close. Your heart has _____ valves. (Color the valves green.)

©2011 Texas Heart Institute
www.texasheart.org

Name: _____

©2011 Texas Heart Institute
www.texasheart.org

©2011 Texas Heart Institute
www.texasheart.org

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Nutrition
Heart-Smart Meals and Snacks

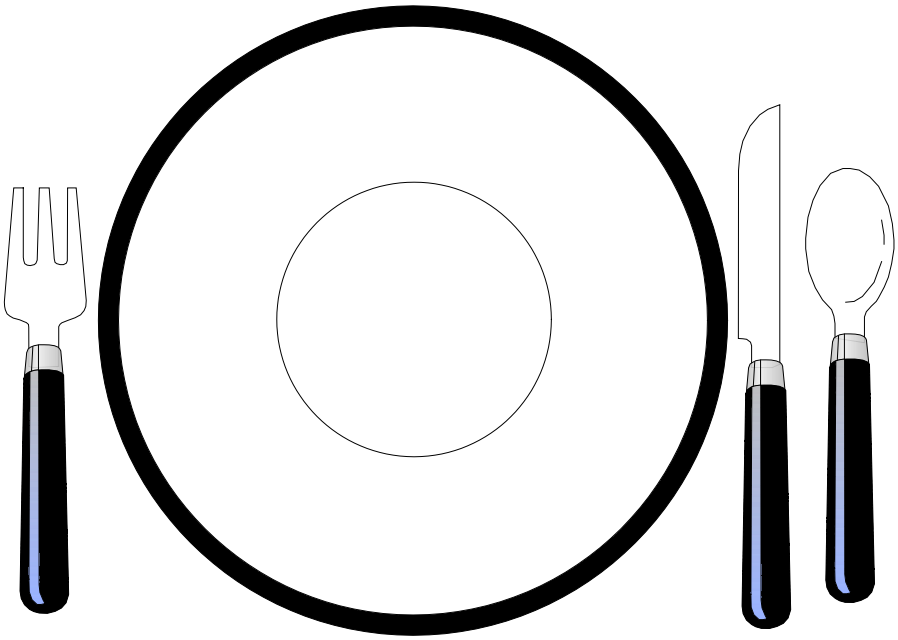
Your heart needs healthy food—not junk food—to stay strong.

Can you choose a healthy meal or snack? Using magazines and newspapers, cut out pictures of healthy foods. Glue the pictures to your plate. (Be sure to include foods from different food groups.)

CHALLENGE: Find unhealthy food choices and glue them to the next page.

Choose:
- Breakfast
- Lunch
- Dinner
- Snack

Healthy_____



©2011 Texas Heart Institute
www.texasheart.org

Name: _____

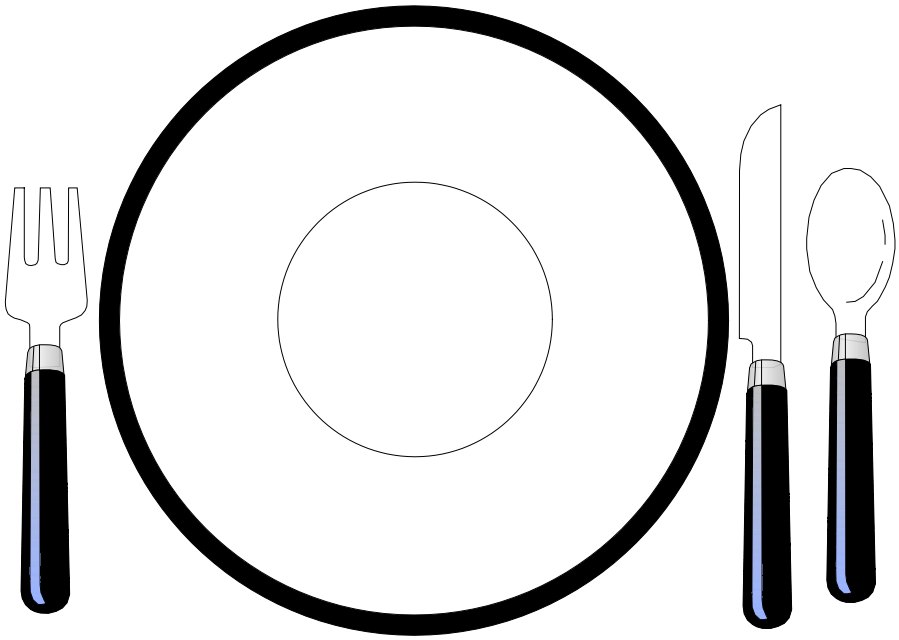
Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Nutrition
Heart-Smart Meals and Snacks

Choose:
- Breakfast
- Lunch
- Dinner
- Snack

Unhealthy _____



©2011 Texas Heart Institute
www.texasheart.org

Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

What are you having for lunch today? Are you eating a healthy lunch (things like fruit, vegetables, yogurt, cheese) or are you eating a lot of junk food (like potato chips, cookies, snack cakes)?

Use this worksheet for one week to keep track of what you are eating at lunchtime. Can you find three healthy foods in your lunch today? Write them down in the "Healthy Food" column. How many items in your lunch are junk food? Write them down in the "Junk Food" column.

(The goal is to eat more healthy food than junk food, so if you discover you eat more junk food at lunchtime, try to eat less the next day.)

At the end of the week, add up how many healthy foods you ate and how many junk foods you ate. If you ate more junk food than healthy food, don't give up. Try to eat more healthy foods next week!

©2011 Texas Heart Institute
www.texasheart.org

Nutrition
Today's Lunch

Day:	Healthy Food:	Junk Food:
Monday	_____	_____
	_____	_____
	_____	_____
	_____	_____
Tuesday	_____	_____
	_____	_____
	_____	_____
	_____	_____
Wednesday	_____	_____
	_____	_____
	_____	_____
	_____	_____
Thursday	_____	_____
	_____	_____
	_____	_____
	_____	_____
Friday	_____	_____
	_____	_____
	_____	_____
	_____	_____
TOTAL	_____	_____

Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Can you eat something healthy every day for one week?

Challenge yourself to eat at least three healthy fruits and/or vegetables every day for one week. Use the list of fruits and vegetables as a guide. (It's okay to eat other fruits and vegetables that are not on the list. It's also okay to eat the same foods more than once in the same week.)

When the week is over, turn your list in to your teacher. Keep up the challenge for 4 weeks and earn a Heart Smart certificate from the Texas Heart Institute.

©2011 Texas Heart Institute
www.texasheart.org

Nutrition
Heart-Smart Choices

Day:	Fruit and/or Vegetable	
Monday	_____	_____
	_____	_____
	_____	_____
Tuesday	_____	_____
	_____	_____
	_____	_____
Wednesday	_____	_____
	_____	_____
	_____	_____
Thursday	_____	_____
	_____	_____
	_____	_____
Friday	_____	_____
	_____	_____
	_____	_____

Fruits		Vegetables		
Apple	Orange	Artichoke	Cucumber	Turnip
Apricot	Peach	Asparagus	Eggplant	Zucchini
Avocado	Pear	Beans	Lettuce	Yams
Banana	Pineapple	Broccoli	Mushroom	
Blueberries	Plum	Brussel sprouts	Onion	
Cherries	Raspberries	Cabbage	Peas	
Grapefruit	Strawberries	Carrot	Potato	
Grapes	Watermelon	Cauliflower	Spinach	
Honeydew		Celery	Squash	
Nectarine		Corn	Tomato	

Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Exercise Your Pulse

You know that your heart is a muscle that pumps blood through your body. But did you know that you can feel the beat of your heart when you touch your wrist? This is called your pulse.

Lightly press your first and second fingers across your wrist. You'll be able to feel your pulse just below your thumb.

Your pulse tells you how fast your heart beats. The more you exercise, the faster your heart beats (and the faster your pulse beats).

Use the graph to chart how fast your heart beats after resting and exercising. Place an "X" in the square closest to the number of beats you count after sitting, walking, running, and jumping.

200				
190				
180				
170				
160				
150				
140				
130				
120				
110				
100				
90				
80				
70				
	Sitting	Walking	Running	Jumping

©2011 Texas Heart Institute
www.texasheart.org

Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Can you identify exercises that are good for your heart?

Think of an exercise that you like to do. Then draw a picture of that exercise in the box (or find a picture in a magazine or newspaper that shows someone doing the activity).

Describe the exercise on the lines beside the picture and tell how the activity helps your heart.

Exercise
Heart-Smart Choices

Exercise I like to do:

_____

_____

_____

_____

How the exercise helps my heart:

_____

_____

_____

_____

Exercise I would like to learn how to do:

_____

_____

_____

_____

How the exercise would help my heart:

_____

_____

_____

_____

©2011 Texas Heart Institute
www.texasheart.org

Name: _____

Texas Heart® Institute
at St. Luke's Episcopal Hospital

Project Heart
Activities for the Classroom

Can you exercise every day for one week?

Challenge yourself to at least 30 minutes of exercise every day for one week. Use the list of suggested activities as a guide. (It's okay to do other exercises that are not on the list. It's also okay to do the same exercise more than once in the same week.)

When the week is over, turn your list in to your teacher. Keep up the challenge for 4 weeks and earn a Heart Smart certificate from the Texas Heart Institute.

©2011 Texas Heart Institute
www.texasheart.org

Exercise
My Heart-Smart Journal

Date: _____

My Personal Goal: _____

_____

_____

_____

Write the name of your activity and place a check mark under the day(s) of the week you exercised. Write where you exercised as well (home, school, YMCA, park, etc.).

Activity	M	T	W	TH	F	S	S	Place

Suggested Activities

Aerobics
Baseball
Basketball
Biking
Bowling
Brisk walking
Cheerleading
Climbing
Dancing
Football
Group games
Gymnastics
Jogging
Jumping rope
Nature walks
Playing in the park
Running
Skating
Soccer
Swimming
Tennis
Tumbling

Name: _____