



The Nation's Favorite Fun Family Newspaper
Kidsville News! Brainworks Worksheet
February Enrichment Activities
Grades 3-6



Students: After reading "Connections," complete the following heart-related science project to create a demonstration on how the heart works.

Heart Pump Project

Use this simple experiment to learn how the muscles that make your heart work bring blood flow to your organs every day.

Note: Children under 8 can choke or suffocate on uninflated or broken balloons. Use adult supervision and keep uninflated balloons from children. Discard broken balloons at once.

What You Need:

beaker or wide-mouth jar
large balloon**
2 drinking straws (bendy straws seem to work best)
wooden skewer
red food coloring (to represent the blood)
scissors
water
tape
large pan or sink

What You Do:

1. Fill the jar half full of water. Add a few drops of the red food coloring.
2. Cut the neck of the balloon off at the part where it starts to widen into a balloon. Set the neck part aside.
3. Stretch the balloon over the opening of the jar, pulling it down as tightly as you can. The flatter you can get the surface of the balloon, the better.
4. Carefully use the tip of a skewer to poke two small holes in the surface of the balloon. Make them about an inch apart from each other and near opposite edges of the jar.
5. Stick the long part of the straw into each hole. The straws should fit securely in the holes so no air can get through around the straws.
6. Slide the uncut end of the balloon neck onto one of the straws and tape it around the straw.
7. Set your pump in a large pan or the sink to catch the pumped water. Bend the straws downward. Gently press in the center of the stretched balloon and watch what happens to the water in the jar.



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Students: After reading "Around the World," fill in the blanks below with the correct terms that describe what you can do to keep your heart healthy and happy.

1. The heart is a _____ that needs _____ to keep it strong.
2. Keep your heart in good _____ is _____.
3. Preschool-age kids need about _____ hours of exercise a day.
4. School-age kids and teens need at least _____ minutes a day of moderate to _____ intensity activity.
5. Avoid _____ fats and _____ fats in your diet.
6. Stay away from sugary _____ and fruit _____.
7. _____ can damage the heart and blood _____.
8. In terms of screen time, _____ is _____.
9. Watch no more than ____ to ____ hours on the TV/_____/_____ games per day.
10. Do these things to keep your heart _____ blood throughout your whole _____.



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Students: After reading "Wildville," read the following statements and determine if they are true or false. On the provided lines, write a T for a true statement and an F for a false statement. Rewrite the statement under each false statement to make it true.

- _____ 1. Studies show that dog owners may live longer than cat owners.
- _____ 2. Owning a dog may reduce your risk of dying from a heart attack or stroke by 50%.
- _____ 3. A link exists between people with prior heart events who had a dog living at home with a 65% reduced risk of death.
- _____ 4. One study showed that dog owners who walk their dogs regularly may face one-third the risk of heart attacks of those who don't own dogs. Dog walking also increases social interactions.
- _____ 5. Dog parents are no more likely to reach their fitness goals than those without canine companions.
- _____ 6. Pet companionship may provide important social support and is a powerful predictor of behavior changes that can lead to weight loss.
- _____ 7. Dogs can help with chronic conditions and prevent headaches.
- _____ 8. Pets provide social support that benefits patients with heart disease or stroke.
- _____ 9. Spending time with pets gives people feelings of responsibility and frustration which lowers stress hormones. They also make us smile.
- _____ 10. Studies show that the mere act of petting a dog decreases blood pressure.



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Answer Key



Students: After reading "Connections," complete the following heart-related science project to create a demonstration on how the heart works.
Parents and Teachers: See explanation below.

Heart Pump Project

What Happened:

You made a simple pump that moved water from the jar through the straws and into the pan. The cut end of the balloon worked as a valve to stop the water from going back down the straw. Your heart pumps blood out into your body through your arteries in a similar way.

Human hearts have four separate chambers inside. This heart model pump shows how one chamber and its valve works.

A valve is used to keep blood that has been pumped from one chamber to another from flowing back into the chamber it came from.

Try taking the balloon valve off of the straw and pump water again. Did you notice anything different? You likely saw that water still came out of the straw, but without the valve, there was nothing to keep some water from going back down the straw.

To keep blood moving through your blood vessels and into your body, your heart needs valves to separate its chambers.

Here is a video to watch to see if the project was performed correctly:

<https://www.bing.com/videos/riverview/relatedvideo?q=heart%20pump%20science%20project%20video&mid=F842F9ED592602DF7C9BF842F9ED592602DF7C9B&ajaxhist=0>



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Answer Key



Students: After reading "Around the World," fill in the blanks below with the correct terms that describe what you can do to keep your heart healthy and happy.
Parents and teachers: Answers are below.

1. The heart is a muscle that needs exercise to keep it strong.
2. Keep your heart in good shape is important.
3. Preschool-age kids need about three hours of exercise a day.
4. School-age kids and teens need at least 60 minutes a day of moderate to _____ intensity activity.
5. Avoid saturated fats and trans fats in your diet.
6. Stay away from sugary soft drinks and fruit drinks.
7. Smoking can damage the heart and blood vessels.
8. In terms of screen time, less is better.
9. Watch no more than 1 to 2 hours on the TV/computer/video games per day.
10. Do these things to keep your heart pumping blood throughout your whole life.



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Answer Key

Students: After reading "Wildville," read the following statements and determine if they are true or false. On the provided lines, write a T for a true statement and an F for a false statement. Rewrite the statement under each false statement to make it true. **Parents and teachers:** Answers are below.

___F___ 1. Studies show that dog owners may live longer than cat owners.

Correction: Studies show that dog owners may live longer than non-dog owners.

___F___ 2. Owning a dog may reduce your risk of dying from a heart attack or stroke by 50%.

Correction: Owning a dog may reduce your risk of dying from a heart attack or stroke by 31%.

___T___ 3. A link exists between people with prior heart events who had a dog living at home with a 65% reduced risk of death.

___T___ 4. One study showed that dog owners who walk their dogs regularly may face one-third the risk of heart attacks of those who don't own dogs. Dog walking also increases social interactions.

___F___ 5. Dog parents are no more likely to reach their fitness goals than those without canine companions.

Correction: Dog parents may be more likely to reach their fitness goals than those without canine companions.

___T___ 6. Pet companionship may provide important social support and is a powerful predictor of behavior changes that can lead to weight loss.

___F___ 7. Dogs can help with chronic conditions and prevent headaches.

Correction: Dogs can help with chronic conditions and prevent chronic disease.

___T___ 8. Pets provide social support that benefits patients with heart disease or stroke.

___F___ 9. Spending time with pets gives people feelings of responsibility and frustration which lowers stress hormones. They also make us smile.

Correction: Spending time with pets gives people feelings of comfort, goodwill, joy and happiness, which lowers stress hormones. They also make us smile.

___T___ 10. Studies show that the mere act of petting a dog decreases blood pressure.