

Have a Heart!

Just in time for Valentine's Day,
here are some scientific investigations of the heart
for those who are young or just young at heart!

There are so many misconceptions about the human heart – the first being that it is shaped, well, like a heart - it is actually shaped much more like a ball. Often we are told to place our right hand over our heart for the Pledge of Allegiance – it is actually more in the middle of the body. As always, you can begin your investigation at the library where there are many simple books with illustrations of the human body and the circulatory system.

Materials:

Empty dish soap bottle
Water
Celery stalk
Food Coloring (esp, red)
Cup
Toy stethoscope or toilet paper tube



Now Let's Find out How the Heart Works

The heart is a pump that pushes blood through blood vessels throughout our body.

- ❖ We can demonstrate this for children with an empty dish soap bottle and some water (died red if you prefer). Fill the sink with some water and allow your child to squeeze the bottle pushing water in and out. Explain that the heart is a muscle, like their hand, that squeezes the blood and pushes it through the veins.
- ❖ To demonstrate how the blood goes through the veins, use a piece of celery with the leafy bits still attached. Fill a cup with water and a bit of red food coloring. Place the celery in the water and watch as the red water travels up the “veins” of the celery and turns the leaves red. (This can also make a nice bouquet for Valentine's Day.)
- ❖ Help your child find the veins in her own body. If you squeeze your hand into a fist several times it is easier to see the veins in your wrist.

How do we know if your heart is working?

- ❖ Help your child find her pulse by placing her fingers on her wrist or neck. See if she can count the pulses.
- ❖ Have your child run in place for 30 seconds and try again. Use the stethoscope that came with your child's doctor kit, or a toilet paper tube placed on the heart (remember the heart is more toward the center of the chest). Children as young as 3 can recognize when their heart is “racing.” After vigorous exercises have your child sit very still and feel her heart beating.



Finally, make some Valentines, because the heart is really much more than a muscular pump!