

HEART PUMP LAB

Your heart is a pump that pushes blood throughout your body almost 70 times a minute. In this lab, you will see how important it is for your heart to have valves. These valves make sure your heart pushes blood in the correct direction every time it pumps.



MATERIALS

Large Balloon



2 Flex Straws



1 Skewer



Jar/Hard Cup



Tape



Scissors



1 Cut the stem off of your balloon. You will use both pieces in this lab.

2 Fill your jar or cup half way with water. You may add a drop or two of red food coloring or choose to leave the water clear. Securely stretch the large part of your balloon over the top of your jar or cup.

3 Use a skewer to poke two holes in your balloon. The holes should be about an inch apart.

4 Place the pink straw into one of the holes and your blue straw into the other hole.



5 Place your jar/cup in a dish or the sink and push down on the balloon top. You have just made a simple pump! What happens to the liquid in your container?

6 Tape the balloon stem in half and slide it onto your blue straw. Securely tape around the balloon and straw so that the end of the blue straw is closed off. This is your valve.

7 Place your jar/cup in a dish or the sink again and push down on your balloon top. What happens now to the liquid in your container?

8 How is the balloon that covers the blue straw like a valve? The model you made is a simple, single pump while your heart is actually two pumps in one. What would happen to the blood in your body if your heart didn't have valves?