

 Project 4.3.3 Cruising With a Blood Cell**Purpose**

On a recent trip to the mall, you picked up a bright and interesting travel brochure for a cruise. The pages were filled with descriptions of each stop, documenting the location, attractions, and highlights of the destination. It was a good tool to explain the route and benefits of the trip. Could this tool be used to describe body systems?

Like a cruise, there is a specific sequence of stops that are followed within the circulatory system. At each stop along the way, a specific function is completed so the system works efficiently. Oxygen rich blood is pumped to the rest of the body to fuel cells. Oxygen depleted blood is pumped to the lungs to replenish oxygen levels, and then back to the heart for distribution to the rest of the body. Charting the flow will lead to a better understanding of the circulatory system.

Materials**Per pair of students:**

- Computer with Internet access and Microsoft® Publisher or comparable program
- Agriscience Library
- Sample travel brochures
- Pencil
- *Agriscience Notebook*

Procedure

In this project, you will develop a travel brochure mapping the course of blood through the circulatory system. You will describe each “attraction” or part of the circulatory system in detail as the journey moves along.

1. On a piece of paper, map the route the blood travels through the components of the circulatory system and the functions of those components. This will serve as an outline as you complete the brochure.
2. On a computer, open Microsoft® Publisher and select a trifold brochure as your publication type.
3. Place information about each component and its function into the brochure as if each were a separate attraction on a tour. Attractions in a real travel brochure are written to sound fun and appealing in order that travelers will be excited about stopping there. Utilize the same language and style in your brochure.
4. Use *Project 4.3.3 Evaluation Rubric* as a reference while developing your brochure.
5. The parts of the heart are the main attractions; extra emphasis should be placed on these components.
6. Add a diagram of the entire system and other pictures and diagrams as necessary.
7. Print your brochure, attach the front to the back and fold it accordingly.

Resources

The following resources will be useful in helping you design and develop your “Cruising With a Blood Cell” brochure:

Books:

Lawhead, J., & Baker, M. (2005). *Introduction to veterinary science*. Clifton Park, NY: Delmar.

Romich, J.A. (2006). *An illustrated guide to veterinary medical terminology* (2nd ed.). Clifton Park, NY: Thompson Delmar Learning.

Websites:

- Boston Scientific Heart Smart found at:
<http://www.lifebeatonline.com/en-US/explore-heart-conditions/heart-smart.html>
- How Stuff Works Circulatory System Channel found at:
<http://health.howstuffworks.com/human-body/systems/circulatory>
- Your Heart and Circulatory System found at:
<http://kidshealth.org/kid/htbw/heart.html>

Conclusion

1. Describe the flow of blood through the heart.

The blood takes oxygen to the left side of the heart where the arteries take blood around the body. When the blood is done transporting oxygen it travels to the right side of the heart with carbon dioxide.

2. How do arteries and veins connecting with the lungs differ from arteries and veins connecting with other organs?

Arteries and veins that connect to the lungs transport oxygen filled blood and carbon dioxide blood from heart to lungs.