**Heart Dissection**                    Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Aims**

* To study the external and internal structure of the heart
* To relate the structures of the heart to their functions

**Equipment**

Sheep’s heart

Cutting board

Scalpel

Forceps

Disposable gloves

Disinfectant

**Safety**

Take care when using a scalpel – make sure you do not cut yourself by mistake. Always cut away from yourself.

Even though these hearts are food grade, it is recommended you wear gloves and wash your hands at the end of the dissection.

All scalpels and forceps should be placed in disinfectant after use.

Benches should be wiped down with disinfectant at the end of class.

**Method**

Gently squeeze each side of the heart. The softer side is the right side of the heart. The muscles on this side of the heart are thinner so it feels softer when it is pressed.

Place the heart on the cutting board so that the softer, right side of the heart is on your left.

The upper most side of the heart is the ventral (front) side of the heart. The ventral side of the heart is more rounded than the dorsal (back) side of the heart.

Look carefully at the surface of the heart. **Describe the surface of the heart. Why is it shiny and slippery?**

Can you find any arteries or veins coming out of the heart (they may have been cut off). **Where are they found? Describe what they look like (colour, texture, size etc). What is their function?**

|  |  |  |
| --- | --- | --- |
| Aorta | http://eduspace.free.fr/vs_pages/heart_dissection_fichiers/heart_1.gif | Pulmonary artery |
| The two vena cava go into the right atrium on the other side (dorsal side) | The pulmonary vein goes into the left atrium on the dorsal side. |
|  | Coronary artery and vein |
| When you need to see inside the right ventricle, cut here. |  |
| When you want to open the left ventricle cut here. |

Cut open the right ventricle by following the line on the diagram. Open the ventricle using the forceps.  **Estimate the thickness of the muscle.** Find the valve separating the atrium from the ventricle. **Describe the appearance of the valve.**

Cut open the left ventricle by following the line on the diagram. Open the ventricle using the forceps. **Estimate the thickness of the muscle.** **Describe how this is different from the right ventricle in terms of volume and muscle thickness.**

Cut into the atria and estimate the muscle thickness.  **Is the muscle wall thicker or thinner than the ventricles?  Explain why this is the case.**