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Resource provided as an example of good practice from Joanne Ormisher, The Blue Coat School, Oldham

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Lesson 3

Required Practical 5 Heart Dissection



Objective: To develop the following practical assessment skills	
AT(e)	To produce scientific drawings from observation with annotations
AT(h)	To safely and ethically use organisms to measure physiological functioning
AT(j)	To safely use instruments for dissection of an animal organ
CPAC1	Correctly follows written instructions to carry out experimental techniques or procedures
CPAC3a	Identifies hazards and assesses risks associated with these hazards
CPAC3b	Uses appropriate safety equipment and approaches to minimise risks with minimal prompting
CPAC4a	Makes accurate observations relevant to the experimental or investigative procedure
CPAC5b	Cites sources of information demonstrating that research has taken place

Pre-practical Activity

Read through the method then write a risk assessment using the table format shown below.

Hazards	Risks	Measures to control risk

Include your references below the table, including full URL with date and time of access for websites.

This will form part of your CPAC3a and CPAC5b assessment.

Practical Activity - Heart Dissection

You are provided with the following:

- a sheep's heart
- dissecting tray and board
- dissecting instruments
- sticky labels
- Cocktail sticks or dissection pins
- Laminated dissection guide cards (PS21)

You should read these instructions carefully before you start work. **You will be assessed on CPAC1 and CPAC3b during the practical.**

1. Before you cut the heart examine its external features.

- Identify the coronary arteries
- Run water into the top of the heart and see if you can see the valves in the aorta and pulmonary arteries close.
- Squeeze the heart gently and these valves should open and the water will come out.

2. Cut down each side of the heart to open up the left atrium and left ventricle and the right atrium and right ventricle.

- Look for the tendinous cords holding the atrio-ventricular valves, and lift the weight of the heart by holding one of these cords over a dissecting needle.
- Look how thin the atrio-ventricular valves are.
- Examine the thickness of the walls of the ventricles.
- Which side is thicker, and why?
- Look at the walls of the atria, they are much thinner, can you think why?
- Push the handle of the dissecting needle up behind the atrio-ventricular valves. You should notice that the aorta and pulmonary arteries cross over.

3. Make some little flags from pins and sticky labels and label the parts of the heart that you can identify. Make sure they are legible and visible as you look down on your dissection.



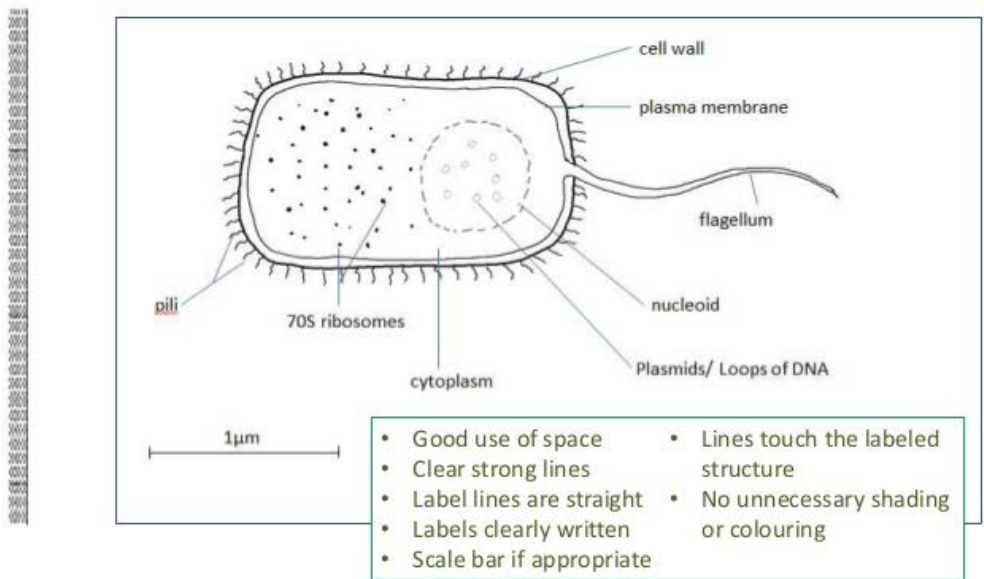
Ask your teacher to check your labelling and take a photograph so you can include it in your notes.

Packing away: Follow the steps to minimise risk of contamination identified in your risk assessment.

Post Practical Activities

Stick a photograph of your labelled heart into your lab book.
 Use your photograph to produce a biological drawing. Remember to use a sharp pencil, include a title and the magnification. **This will form part of your CPAC4a assessment.**

A Good Drawing...



CPAC Assessment

CPAC	Description	No evidence	Some evidence	Mastery
1	Correctly follows written instructions to carry out experimental techniques or procedures			
3a	Identifies hazards and assesses risks associated with these hazards			
3b	Uses appropriate safety equipment and approaches to minimise risks with minimal prompting			
4a	Makes accurate observations relevant to the experimental or investigative procedure			
5b	Cites sources of information demonstrating that research has taken place			

Teacher signature _____

Date _____