

## KD Module 2

### Webquest Unit Lesson Plan Template

<b>Teacher Name:</b>	PAUL K TONUJ
<b>Name of your school:</b>	MURKAN SECONDARY SCHOOL
<b>Name of your country:</b>	KENYA
<b>Name of your master trainer:</b>	JOHN NAPUA

<b>Form:</b>	TWO
<b>Subject:</b>	BIOLOGY
<b>Topic:</b>	TRANSPORT IN ANIMALS
<b>Webquest Sub-topic:</b>	STRUCTURE AND FUNCTIONS OF THE HEART
<b>Rationale</b> (Why should the project be taught? What should the students learn from the project?):	
<b>Objectives: By the end of the lesson the learner should be able to</b> <ul style="list-style-type: none"><li>• State the external features of the heart</li><li>• State the internal features</li><li>• Relate the structure of the heart and the blood vessels to their functions.</li><li>• Trace the path taken by the blood to all parts of the body and back to the heart</li></ul>	
<b>Pre-requisite Knowledge:</b>	The learner to recall major functions of the mammalian body such as lung , the liver and the heart
<b>21<sup>st</sup> Century Skills:</b>	Collaboration, communication ,creative thinking
<b>Time required (# lessons):</b>	3 lessons of 40 min each
<b>Resources – ICT:</b>	Laptops, computer, modem
<b>Resources – Non ICT:</b>	Chalk board/flip charts

## Lesson Unit Part 1: The Webquest 'introduction', 'task', 'process' and 'guidance'

This part of the webquest unit can cover a number of lessons – depending on the project topic and learning objectives (x1, x2, x3, x4 lessons)

LESSON PLAN ACTIVITIES		
<i>The lesson is divided into 3 main activity stages – Introduction, Main Activities, Conclusion</i>		
Lesson Stages	Time	Activities
Introduction		The introduction
Main Activities <i>New Knowledge</i>		<p><b>The task</b></p> <ul style="list-style-type: none"> <li>This web quest is designed to help you acquire advance understanding of the structure of the heart, functions and blood flow from the heart to all parts of the body and back .</li> <li>You will be required to work in groups of five (5) in order to efficiently complete the task at hand. You are expected to make a booklet from the information provided in this web quest. Your booklet will be displayed in the Biology Department Open Day. The students, parents and teachers will be able to view your booklet.</li> <li>Your booklet should not exceed twenty-five (25) pages.</li> </ul>
		<p>The Resources</p> <ul style="list-style-type: none"> <li>Internet resources</li> <li>Computers</li> <li>Laptops</li> <li>Speakers</li> <li>phones</li> <li>A whiteboard</li> </ul>
Reinforcement		<p><b>The process</b></p> <ul style="list-style-type: none"> <li>Visit the following website links to remind yourselves some of the key terms in communication</li> <li><a href="https://www.youtube.com/watch?v=3Nnpyf4ni3E">https://www.youtube.com/watch?v=3Nnpyf4ni3E</a></li> <li><a href="https://www.youtube.com/watch?v=M5agXgyN1ng">https://www.youtube.com/watch?v=M5agXgyN1ng</a></li> <li><a href="https://www.youtube.com/watch?v=tQyyOCm9uMY">https://www.youtube.com/watch?v=tQyyOCm9uMY</a></li> <li><a href="https://www.youtube.com/watch?v=M5agXgyN1ng">https://www.youtube.com/watch?v=M5agXgyN1ng</a></li> <li></li> </ul>
Reflection		<p>The guidance</p> <p>Write your notes based on the following headings</p> <ul style="list-style-type: none"> <li>External features of heart</li> <li>The internal structure of the heart</li> <li>The blood flow from heart to all parts of the body and back to the heart</li> <li>Conclusion</li> </ul>
Conclusion		<p>Summary – the student web quest project</p> <p>Each group to present the findings based on the following questions</p> <ul style="list-style-type: none"> <li><b>State the external features of the heart</b></li> <li><b>State the internal features</b></li> </ul>

		<ul style="list-style-type: none"> <li>• Relate the structure of the heart and the blood vessels to their functions.</li> <li>• Trace the path taken by the blood to all parts of the body and back to the heart</li> <li>•</li> </ul>
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## Lesson Unit Part 2: The Webquest student presentation ‘product’ and ‘evaluation’

This part cover the **final lesson** of the webquest unit – where the student present their final project to the class

LESSON PLAN ACTIVITIES			
<i>The lesson is divided into 3 main activity stages – Introduction, Main Activities, Conclusion</i>			
Lesson Stages	Time	Activities	
		<ul style="list-style-type: none"> <li>• Visit the following website links to remind yourselves some of the keys features of the heart</li> <li>• <a href="https://www.youtube.com/watch?v=3Nnpyf4ni3E">https://www.youtube.com/watch?v=3Nnpyf4ni3E</a></li> <li>• <a href="https://www.youtube.com/watch?v=M5agXgyN1ng">https://www.youtube.com/watch?v=M5agXgyN1ng</a></li> <li>• <a href="https://www.youtube.com/watch?v=tQyyOCm9uMY">https://www.youtube.com/watch?v=tQyyOCm9uMY</a></li> <li>• <a href="https://www.youtube.com/watch?v=M5agXgyN1ng">https://www.youtube.com/watch?v=M5agXgyN1ng</a></li> <li>•</li> </ul> <p>You will be required to work in groups of five (5) in order to efficiently complete the task at hand. You are expected to make a booklet from the information provided in this web quest. Your booklet will be displayed in the Biology Department Open Day the students, parents and teachers will be able to view your booklet.</p> <ul style="list-style-type: none"> <li>• Your booklet should not exceed twenty-five (25) pages.</li> </ul>	
<b>Introduction</b>		<p><b>The web quest project – student presents</b></p> <ul style="list-style-type: none"> <li>• You will be required to work in groups of five (5) in order to efficiently complete the task at hand. You are expected to make a booklet from the information provided in this web quest. Your booklet will be displayed in the Biology Department Open Day the students, parents and teachers will be able to view your booklet.</li> <li>• Your booklet should not exceed twenty-five (25) pages.</li> </ul>	
<b>Main Activities</b> <i>New Knowledge</i>		<p><b>Reflection on the project – pivotal questions</b></p> <p>Do you think structure and function of the heart is important?</p>	
<b>Conclusion - Assessment</b> <i>And follow-up.</i>		<p><b>Evaluation rubric/ conclusion</b></p>	

Student product evaluation	Fair 1	Satisfactory 2	Good 3	Excellent 4	Score
Organization	Presentation <u>does not clearly communicate the topic information</u> – even with spoken explanation	Presentation <u>communicates quite clearly</u> topic information – but needs a lot of spoken explanation	Presentation <u>communicates clearly</u> topic information – but needs spoken explanation	Presentation is well organized, neat and <u>communicates very clearly</u> the topic information	
Quality of content	Answers <u>very few questions or none at all</u>	Answers <u>some questions well</u>	Answers <u>all questions well</u>	Answers <u>all questions very well</u> and contains other interesting facts or conclusions	
Quality of group presentation	Visuals and effects in the presentation <u>are not effective</u> – and they are distracting from the content	Visuals and effects in the presentation <u>are quite effective</u> – and do not distract from the content	Visuals and effects in the presentation <u>are effective</u> and do not distract from the content	Presentation visuals and effects <u>are very effective</u> and improve the content – – and do not distract from the content	
Quality of group research	Group has difficulty to <u>organize and analyze information even with help</u>	Group can <u>with help organize and analyze information</u> from a variety of sources	Group can <u>organize, analyze and with help can synthesize information</u> from a variety of sources	Group can <u>organize, analyze and synthesize information</u> from a variety of sources	
Quality of group communication	Group members <u>have difficulty to work collaborate and effectively together</u> even with teacher guidance	Group members with <u>a lot of teacher guidance can work collaboratively and effectively together</u> to produce an original project	Group members with <u>some teacher guidance can work collaborative and effectively together</u> to produce an original project	Group members <u>interact, collaborate and work effectively together</u> to produce an original project	
<b>Total score</b>					