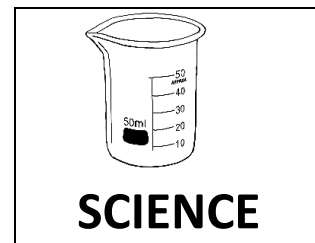


Research Task



Subject:	Biology		
Year:	12		
Task:	# 3		
Date Issued:	14/05/2020	Due Date:	03/06/2020
Mark:	/30		
Weighting:	20%		
Assessment Mode:	Research		

Outcomes

BIO12-4: selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media

BIO12-7: communicates scientific understanding using suitable language and terminology for a specific audience or purpose

BIO12-14: analyses infectious disease in terms of cause, transmission, management and the organism's response, including the human immune system

Marking Criteria: (attached)

Students will be assessed on their ability to:

- Choose a specific pathogen including its scientific name
- Create a model to show how the human body would respond to this pathogen if it were to gain entry
- Communicate your understanding using an engaging model
- Valid and Accurate references used to source information

Task Instructions:

You are to model the third line of defence of the human immune system to explain how the body would respond if the specific pathogen were to gain entry into a host human.

In your model you are to select a pathogen and explain **ONE** of the following:

- Adaptive response- humoral
- Adaptive response- cell mediated

Choose a form of your model: Here are some suggestions:

- 3D model with annotations or video
- 2D model such as poster
- Board game that incorporates the cells and their functions
- A storyboard or series of cartoons

Your model should demonstrate an accurate understanding of the following:

- Identify the specific pathogen
- Identify the chemical and cellular components of the immune response including correct adaptive response
- Outline the circumstances that trigger the response
- Identify the speed of the response (minutes/hours/days)
- Explain the presence or absence of memory formation from this response
- Describe the site of these reactions (e.g. tissues, in lymph nodes)
- Evaluate the limitations of the model created

Verbs – Definitions

Identify: Recognise and name

Describe: Provide characteristics and features

Apply: Use, utilise, employ in a particular situation

Outline: Sketch in general terms; indicate the main features of

Explain: Relate cause and effect; make the relationships between things evident; provide why and/or how

Evaluate: Make a judgement based on criteria; determine the value of

Submission / Late Policy

Students will be required to submit the task on the due date. If students require further support, they will be required to contact their teacher before the due date, so that an alternative arrangement can be organised. All issues relating to the non-submission of tasks will be dealt with by the process outlined in your Assessment Booklet. A copy of the Year 12 Assessment Booklet is located on the school's website.

Marking Guidelines

Outcome	Developing	Elementary	Substantial	High	Marks
<p>BIO12-4: selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media</p>	<ul style="list-style-type: none"> - Data or information is disorganised and limited resources have been accessed <p>Marks 1-3</p>	<ul style="list-style-type: none"> - Selects appropriate qualitative and/or quantitative data and information and represents them using a range of digital technologies and/or appropriate media <p>Marks 4-5</p>	<ul style="list-style-type: none"> - Selects appropriate qualitative and/or quantitative data and information and represents them using a range of formats, digital technologies and/or appropriate media - Applies quantitative process where appropriate <p>Marks 6-8</p>	<ul style="list-style-type: none"> - Selects appropriate qualitative and/or quantitative data and information and represents them using a range of formats, digital technologies and/or appropriate media - Applies quantitative process where appropriate <p>Marks 9-10</p>	
<p>BIO12-7: communicates scientific understanding using suitable language and terminology for a specific audience or purpose</p>	<ul style="list-style-type: none"> - Attempts to design model - Demonstrates limited knowledge and understanding to explain biological concepts <p>Marks 1-3</p>	<ul style="list-style-type: none"> - Does not express information clearly in model - Demonstrates sound knowledge and understanding to explain biological concepts - Some references cited <p>Marks 4-5</p>	<ul style="list-style-type: none"> - Presents a well-organised model - Selects and uses suitable forms of digital, visual written and/or oral forms of communication - Selects and applies appropriate nomenclature and scientific language - Demonstrates thorough knowledge of biological concepts - References: cited correctly <p>Marks 6-8</p>	<ul style="list-style-type: none"> - Presents a logical, well-organised model - Uses effective forms of digital, visual, written or oral forms of communication - Uses scientific language to communicate comprehensive knowledge - Communicates scientific understanding succinctly, logically, and consistently using correct and precise scientific terms and application - Demonstrates an extensive knowledge of biological concepts - References: Valid and accurate sources cited correctly using the Harvard method <p>Marks 9-10</p>	

<p>BIO12-14: analyses infectious disease in terms of cause, transmission, management and the organism's response, including the human immune system</p>	<ul style="list-style-type: none"> - Identify the specific pathogen - Identifies the circumstances that trigger the response - Identify the speed of the response <p>Marks 1-3</p>	<ul style="list-style-type: none"> - Identify the specific pathogen - Identifies the circumstances that trigger the response - Identify the speed of the response (minutes/hours/days) - Identifies the site of these reactions (e.g. tissues, in lymph nodes) <p>Marks 4-5</p>	<ul style="list-style-type: none"> - Identify the specific pathogen - Identify the chemical and cellular components of the immune response including correct adaptive response - Identifies the circumstances that trigger the response - Identify the speed of the response (minutes/hours/days) - Describes the presence or absence of memory formation from this response - Identifies the site of these reactions (e.g. tissues, in lymph nodes) <p>Marks 6-8</p>	<ul style="list-style-type: none"> - Identify the specific pathogen - Identify the chemical and cellular components of the immune response including correct adaptive response - Outline the circumstances that trigger the response - Identify the speed of the response (minutes/hours/days) - Explain the presence or absence of memory formation from this response - Describe the site of these reactions (e.g. tissues, in lymph nodes) - Evaluate the limitations of the model created <p>Marks 9-10</p>	
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