



# Science

## 2022

### Year 9 – New Technologies

### Exposition Task

<b>Title:</b>	Science	<b>Term:</b>	3	<b>Task Type</b>	Exposition Task
<b>Weighting of Task:</b>	20%	<b>Marks:</b>	Task will be marked out of 24		
<b>Date Set:</b>		<b>Date Due:</b>		<b>Class:</b>	
<b>Student's Name:</b>		<b>Teacher's Name:</b>			
<b>Description of Outcomes Assessed:</b>					
CW4d	analyse how social, ethical and environmental considerations can influence decisions about scientific research related to the development and production of new materials				
SC5-9WS:	presents science ideas and evidence for a particular purpose and to a specific audience, using appropriate scientific language.				
<b>Learning areas Assessed:</b>					
Chemical World / New Technologies					
<b>Assessment Task:</b>					
<b>DESCRIPTION OF TASK (OVERVIEW)</b>					
<p>You are required to research background information and present scientific ideas and information for the purposes stated below. You are encouraged to use the attached scaffold to construct evidence-based arguments using appropriate scientific language. This task requires you to research, explain and give your opinion. You will require evidence and references to help justify your opinion.</p> <p>The following questions should be addressed.</p> <ul style="list-style-type: none"> <li>➤ What is 3D printing?</li> <li>➤ What could 3D printing be used for in science?</li> <li>➤ What are the possible side effects of using 3D printing?</li> <li>➤ What is stopping 3D printing from being used now?</li> </ul> <p>Use the space on the <u>next page</u> to start making notes for your justification.</p> <p><b>2. On the conclusion of your research provide a justified response as to why you think government should or should not fund 3D printing, You will need to write your response in a single text. The format of the text should be:</b></p> <p><u>Introductory paragraph</u> - what 3D printing is and what are and your position on whether governments should or should not fund research into 3D printing.</p> <p><u>Paragraphs</u> – giving arguments that support your position. Each supporting argument should be given in a separate paragraph. Each paragraph should have evidence and reasoning to support this argument.</p> <p><u>Concluding paragraph</u> – summing up the arguments and justifying your position.</p> <p><b>You may handwrite your text or word process it.</b>  <b>Students must hand in the both the written text and research scaffold on the due date</b></p>					

<b>Question</b>	<b>Research</b>
What is 3D printing?	
What can 3D printing be used for in science?	
What are the possible side effects of using 3D printing?	
What is stopping 3D printing being used now?	
What do you think ?  Should governments be funding research into 3D printing for scientific purposes?  Why/Why not?	

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**ASSESSMENT CRITERIA:**

Mark	A – Outstanding (4)	B – Very Good (3)	C – Good (2)	D – Satisfactory (1)	E – Insufficient Detail (0)
<b>What is a 3D printing?</b>	Student defines and describes features of 3D printing and how it is produced in detail.	Student defines and describes 3D printing and how they are produced.	Student defines and describes features of 3D printing.	Student defines what 3D printing is.	Student does not clearly identify what 3D printing is.
<b>What can 3D printing be used for in science?</b>	Student clearly identifies and describes and examines 3 uses for 3D printing in science.	Student identifies and describes 3 uses for 3D printing in science	Student identifies and describes 2 uses for 3D printing in science.	Student identifies 1 use for 3D printing in science.	Student does not identify any uses for 3D printing in science.
<b>What are the possible side effects or hazards from using 3D printing?</b>	Student critically examines possible side effects or hazards associated with 3D printing in science.	Student describes 2 or more side effects or hazards associated with 3D printing.	Student identifies 2 or more side effects or hazards with 3D printing.	Student identifies 1 side effect or hazard	Student does not mention any side-effects or hazards from using 3D printing technology.
<b>What is stopping 3D printing being used now?</b>	Student provides 3 comprehensive reasons detailing what is stopping 3D printing being used now and explains how to overcome this problem.	Student provides 3 reasons as to what is stopping 3D printing being used now	Student provides 2 reasons as to what is stopping 3D printing being used now	Student provides 1 reason as to what is stopping 3D printing being used now	Student does not provide any reason as to what is stopping 3D printing being used now
<b>Should governments be funding research into 3D printing for scientific purposes?</b>	Student critically evaluates if government funding for 3D printing research should be made and justifies their opinion based on evidence.	Student justifies why/ why not government funding should be made for 3d printing research	Student identifies 2 reasons for government funding into 3D printing.	Student identifies 1 reason for/against government funding	Student does not provide any reason or view regarding government funding of 3D printing.
<b>References</b>	Student produces a formatted bibliography with at least 3 appropriate references	Student produces a formatted bibliography with at least 3 references.	Student produces a formatted bibliography with at least 2 references.	Student produces a bibliography.	Student does not produce a bibliography.