

## Feedback Rubric: Water Filtration Device (Term 2, Week 2B)

**Student Name:**

**Class:**

Course Outcomes	A	B	C	D	E		
	Has achieved a very high level of competence in the processes and skills and can apply these skills to new situations (EXTENSIVE)	A high level of competence in the processes and skills. In addition, the student is able to apply these skills to most situations (THOROUGH)	An adequate level of competence in the processes and skills (SOUND)	A limited level of competence in the processes and skills (BASIC)	Very limited competence in some of the processes and skills (ELEMENTARY)		
	10-9	8-7	6-5	4-3	2-1	0	MARK
Empathy and Define  <u>SC4-4WS</u> Identifies questions and problems	Deep and thoughtful understanding of individuals/communities and their requirements for clean water + Extensive understanding of who the problem affects and how they are affected + Extensively articulated problem statement in relation to identified water issues of a particular individual/community + Extensive use of scientific terminology when communicating problem and defining problem statement	Detailed understanding of individuals/communities and their requirements for clean water + Detailed understanding of who the problem affects and how they are affected + Detailed articulated problem statement in relation to identified water issues of a particular individual/community + Detailed use of scientific terminology when communicating problem and defining problem statement	Good understanding of individuals/communities and their requirements for clean water + Good understanding of who the problem affects and how they are affected + Clearly articulated problem statement in relation to identified water issues of a particular individual/community + Good use of scientific terminology when communicating problem and defining problem statement	Simple understanding of individuals/communities and their requirements for clean water + Displays an understanding of who the problem affects and how they are affected + Some individual/community problems listed + Some use of scientific terminology when communicating problem and defining problem statement	Basic understanding of individuals/communities and their requirements for clean water + Basic understanding of who the problem affects and how they are affected + Individual/community problems listed + Limited use of scientific terminology when communicating problem and defining problem statement	Incomplete /irrelevant	<b>/10</b>
	10-9	8-7	6-5	4-3	2-1	0	MARK
Ideate  <u>SC4-5WS</u> Produce a plan to investigate questions and problems	Two credible science based sources of information used for each device design + Two extensive device designs produced + All required materials for each device provided + All designs are creative and original + All designs are relevant to the selected individual/community + Each diagram is clearly constructed and labelled	Two credible sources of information used for each device design + Two detailed device designs produced + Most required materials for each device provided + At least one design is creative and original + Most designs are relevant to the selected individual/community + Each diagram is clearly constructed and most components are labelled	Two sources of information used for each device design + Two good device designs produced + Some required materials for each device provided + Design is creative OR original + One design is relevant to the selected individual/community + Diagram for each device present with some labels	At least two sources of information provided for any device designs + Two-one simple device designs produced + A few required materials for at least two devices provided + Designs are modified from existing devices + Relevance is provided for one design + Diagram for at least one device contains some labels	One source of information listed for at least one device design + One basic device design produced + A few required materials for one device + Design may be very similar to pre-existing devices + No relevance is provided + Diagram for device is present (may not be labelled)	Incomplete /irrelevant	<b>/10</b>

	5	4	3	2	1	0	MARK
<p>Prototype</p> <p><u>SC4-4WS</u> Produce a plan to investigate questions and problems</p>	<p>Extensive justification of chosen device +</p> <p>Demonstrates deep knowledge of separation techniques in device +</p> <p>All chosen materials are appropriate for task +</p> <p>Device could be cheaply and easily constructed in chosen community +</p> <p>List of three potential risks with extensive risk minimisation strategies for each hazard</p>	<p>Detailed justification of chosen device +</p> <p>Demonstrates deep knowledge of separation techniques in device +</p> <p>Most chosen materials are appropriate for task +</p> <p>Device could be cheaply constructed in chosen community +</p> <p>List of three potential risks with detailed risk minimisation strategies for each hazard</p>	<p>Good justification of chosen device +</p> <p>Demonstrates good knowledge of separation techniques in device +</p> <p>Most chosen materials are appropriate for task +</p> <p>Device could be easily constructed in chosen community +</p> <p>List of three potential risks with a logical risk minimisation strategy for each hazard</p>	<p>Simple justification of chosen device +</p> <p>Demonstrates some knowledge of separation techniques in device +</p> <p>A few chosen materials are appropriate for task +</p> <p>Device could be constructed in chosen community without major issues +</p> <p>Simple list of two to three potential risks with at least two appropriate risk minimisation strategies</p>	<p>Simple justification of chosen device +</p> <p>Demonstrates little knowledge of separation techniques in device +</p> <p>A few chosen materials are appropriate for task +</p> <p>Device could be constructed in chosen community, may face difficulty with sourcing or purchasing materials +</p> <p>A single basic risk minimisation strategy with a somewhat relevant information</p>	Incomplete /irrelevant	/5
	10-9	8-7	6-5	4-3	2-1	0	MARK
<p>Test</p> <p><u>SC4-9WS</u> Presents science ideas using appropriate text types and representations</p>	<p>Extensive explanation of how device worked +</p> <p>Three or more detailed explanations on suitable tests that could be conducted to ensure the water is safe to drink +</p> <p>Extensive explanation of the impacts each hazard may have on humans +</p> <p>Two or more detailed reasons on why the device was or was not successful at filtering the water sample +</p> <p>Water sample is significantly improved after passing through filtration device</p>	<p>Detailed explanation of how device worked +</p> <p>Three detailed explanations on suitable tests that could be conducted to ensure the water is safe to drink +</p> <p>Detailed explanation of the impacts each hazard may have on humans +</p> <p>Two detailed reasons on why the device was or was not successful at filtering the water sample +</p> <p>Water sample is significantly improved after passing through filtration device</p>	<p>Good explanation of how device worked +</p> <p>Three explanations on suitable tests that could be conducted to ensure the water is safe to drink +</p> <p>Suitable explanation of the impacts that each hazard may have on humans +</p> <p>Two appropriate reasons on why the device was or was not successful at filtering the water sample +</p> <p>Water sample is improved after passing through filtration device</p>	<p>Simple explanation of how device worked +</p> <p>At least one explanations on suitable tests that could be conducted to ensure the water is safe to drink +</p> <p>Some explanation of the impacts that each hazard tested may have on humans +</p> <p>One to two appropriate reasons on why the device was or was not successful at filtering the water sample +</p> <p>Water sample is somewhat improved after passing through filtration device</p>	<p>Basic explanation of how device worked +</p> <p>A test that could be conducted to ensure the water is safe to drink is listed +</p> <p>Little to no explanation on the hazards posed to humans from the water sample given +</p> <p>One somewhat relevant reason on why the device was or was not successful at filtering the water sample +</p> <p>Water sample is slightly improved after passing through filtration device</p>	Incomplete /irrelevant	/10
	10-9	8-7	6-5	4-3	2-1	0	
<p><u>SC4-6WS</u> Follows instructions and undertakes investigation types</p>	<p>Extensive description of three problems encountered during investigation and their solutions +</p> <p>Detailed impact with 2 highly appropriate examples +</p> <p>High level use of PEEL scaffold</p>	<p>Detailed description of three problems encountered during investigation and their solutions +</p> <p>Detailed impact with 2 appropriate examples +</p> <p>Sound level use of PEEL scaffold</p>	<p>Good description of two - three problems encountered during investigation and their solutions +</p> <p>Relevant impact with 2 examples +</p> <p>Attempted to use the PEEL scaffold</p>	<p>Simple description of one-two problems encountered during investigation and a solution to at least one provided +</p> <p>Impact stated with an example</p>	<p>Basic description of one problem encountered during investigation with no solution provided +</p> <p>Impact stated with an example</p>	Incomplete /irrelevant	/10

<b>Outcome:</b>	<b>WS4:</b> /15	<b>WS5:</b> /10	<b>WS9:</b> /10	<b>WS6:</b> /10	<b>TOTAL</b> /45
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## Feedback