

Teacher(s)	Allen	Subject group and discipline	Science		
Unit title	Cells	MYP year	1	Unit duration (hrs)	10

### Inquiry: Establishing the purpose of the unit

Key concept	Related concept(s)	Global context
Systems, Relationships	Function	Identities and Relationships
<b>Statement of inquiry</b>		
Models and diagrams are used to explore and understand how cells function.		
<b>Inquiry questions</b>		
<b>Factual—</b> What are the functions of the parts of a cell? <b>Conceptual—</b> If humans had chloroplasts in our cells, how might that our lives change? <b>Debatable—</b> Rank the importance of the functions of the parts of the cell. What if one part of the cell stopped functioning?		
Objectives	Summative assessment	
Criterion A: Knowing and Understanding i. outline scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations. iii. interpret information to make scientifically supported judgements	Outline of summative assessment task(s) including assessment criteria: -Construction Paper Cells <b>Goal:</b> <ul style="list-style-type: none"> <li>Your task is to create and label both plant and animal cells using prior knowledge and information found in your notebook.</li> </ul> <b>Role:</b> <ul style="list-style-type: none"> <li>You are a teacher creating a model for a student in your class who is having a difficult time understanding the parts of a cell.</li> </ul> <b>Audience:</b>	Relationship between summative assessment task(s) and statement of inquiry:  Students created a model/diagram using construction paper to identify the different parts of a cell and the ways that plant and animal cells are different.

	<ul style="list-style-type: none"> <li>You need to convince the students of the difference between plant and animal cells, using the model you created.</li> </ul> <p><b>Situation:</b></p> <ul style="list-style-type: none"> <li>The challenge involves dealing with a student who is having a difficult time distinguishing the differences between plant and animal cells.</li> </ul> <p><b>Product Performance and Purpose:</b></p> <ul style="list-style-type: none"> <li>You will create a model in order to demonstrate knowledge of the cell parts and distinguish between plant and animal cells.</li> </ul> <p><b>Standards and Criteria:</b></p> <ul style="list-style-type: none"> <li>A successful result will accurately label and portray the parts of the cells.</li> </ul>	
<b>Approaches to learning (ATL)</b>		
Self Management: Understand and use sensory learning preferences (learning styles). Communication: Reading, writing, and using language to gather and communicate information. Thinking: Combine knowledge, understanding and skills to create products or solutions.		
<b>Action: Teaching and learning through inquiry</b>		
<b>Content</b>	<b>Learning process</b>	
<b>Grade Level Expectations:</b>  GLE 0507.1.1 Distinguish between the basic structures and functions of plant and animal cells.	<b>Learning experiences and teaching strategies</b>  See attached outline.	

<b>Checks for Understanding</b>  0507.1.1            Label drawings of plant and animals cells.  0507.1.2            Compare and contrast the basic structures and functions of plant and animal cells.  <b>State Performance Indicators</b>  SPI 0507.1.1            Identify the major parts of plant and animal cells such as, the nucleus, cell membrane, cell wall, and cytoplasm.  SPI 0507.1.2            Compare and contrast basic structures and functions of plant and animal cells.	<b>Formative assessment</b>  group discussions, interactive notebook, journaling, observations, reflective writing, oral quizzes over parts of the cells, label cells on the board, construct edible cells, foldables, tests, label cells in notebook/journal, identify differences between plant and animal cells	
	<b>Differentiation</b>  Peer tutoring, pre-labeling, modified grading, guided vs. inquiry, Enrichment possibility	
<b>Resources</b>		
Cells Alive, textbook, Brainpop, Teacher created flipchart, teacher created tests, teacher created diagrams, teachertube, youtube, Uncovering student ideas in science probes		
<b>Reflection: Considering the planning, process and impact of the inquiry</b>		
<b>Prior to teaching the unit</b>	<b>During teaching</b>	<b>After teaching the unit</b>
Give pre-test over standards to find prior knowledge, only 40% of the students were proficient or advanced before we started.	During teaching, I used a variety of methods for teaching to make sure I reached each student with their specific learning type.	Using the post-test, I was able to see that now 79% of my students are proficient or advanced in this standard. I would make sure that the students that need modified tests are given those before and possibly read aloud the test to more students.

	Interactive notebooks, foldables, discussion, journals, teacher created materials, other hands on activities	
--	--	--