## Evaluation Rubric to assess presence of constructivist principles of learning.

Use the following criteria:

- 0 = Not Present
- 1 = Weakly Present
- 2 = Adequately Present
- 3 = Strongly Present

	Criteria	Score		
Prior knowledge				
a.	Students are given opportunities to access prior knowledge.			
b.	Students are given opportunities to reorganize/reconstruct prior knowledge.			
C.	Students are given opportunities to discuss prior knowledge.			
d.	Students have opportunities to elicit and correct misconceptions in prior knowledge			
e.	Students have opportunities to resolve lesson problem based on prior knowledge.			
Learning Environment				
a.	Students are given opportunities to discuss learning in groups			
b.	Students are given opportunities to discuss learning as a whole class.			
C.	The teacher provides continuous formative assessment.			
d.	Students are given choices in process and product.			
e.	Students are encouraged to share learning through dialogue.			
f.	Teacher provides scaffolding through comments, lesson sequence and worksheet layouts.			
	Learning Activities			
a.	Learning is couched in a problem-, project-, issue-, or case-based environment.			
b.	The overarching problem is real-life, relevant, engaging and motivating.			
C.	The overarching problem can have multiple solutions.			
d.	The learning activities simulate reality.			
e.	Students are expected to obtain, record and organize information through self-determination and regulation.			

f.	Students have provide opportunities for cooperation and collaboration through the learning activities.	
g.	Students have access to a variety of resources and perspective during the learning activity.	
h.	Students are expected to develop arguments based on evidence rather than seeking 'right answers'.	
Reflection & Metacognition		
a.	Students are given opportunities to compare new knowledge to prior knowledge.	
b.	Students are given opportunities to justify problem solutions to others.	
C.	Students are given opportunities to analyze learning through individual, group and whole-class reflection.	
d.	Students are given opportunities to assess their own and each other's learning.	
e.	Teacher feedback focuses on process and products of student learning.	

These criteria have been developed from a variety of sources:

Baviskar, S., Hartle, R. T., & Whitney, T. (2009). Essential Criteria to Characterize Constructivist Teaching:

Derived from a review of the literature and applied to five constructivist-teaching method articles. *International Journal of Science Education*, *31*(4), 541-550.

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Learning Resources Unit at BCIT (2003) Constructivist e-learning methodologies: A module development guide. A Pan-Canadian Health Informatics Collaboratory. Retrieved from:

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- So, W. W-M (2002) Constructivist Teaching in Primary Science. *Asia-Pacific Forum on Science Learning and Teaching*. 3(1) Retrieved from:

  <a href="http://www.ied.edu.hk/apfslt/v3">http://www.ied.edu.hk/apfslt/v3</a> issue1/sowm/index.htm#introduction</a>
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