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| **Educator Rubric** | | | |
| **Evaluation Criteria** | **Excellent** | **Good** | **Needs Improvement** |
| Lesson Format and Content | Lesson format is clear, logical and easy to follow and comprehend. Demonstrates a high level of understanding, comprehension and organization | Lesson format demonstrates good quality work with no major weaknesses. Improvement is required as demonstrates some lack of content and organization | Adequate format and content. Fair comprehension however some weaknesses are evident in content and organization |
| **Constructivist Instructional Model** | | | |
| Construction of Knowledge | The environment provides the necessary components to successfully construct knowledge, including examining conceptions/pre-conceptions and access to resources, including multimedia and hypermedia. This includes the opportunity to problem solve, make decisions and produce a product | The environment provides most of the necessary components to successfully construct knowledge, including examining conceptions/pre-conceptions and access to resources, including multimedia and hypermedia. Work is required in exploiting the environment to provide the necessary means for the construction of knowledge | The environment does not provide the necessary components to successfully construct knowledge, including examining conceptions/pre-conceptions and access to resources, including multimedia and hypermedia |
| Process of learning | The strategy focuses on the process and not the end product of learning. Learners are encouraged to transform and evaluate information through authentic activities and explore their interests | The strategy focuses on the process and not the end product of learning. Activities need to provide a clearer process to encourage the transformation and evaluative processes of learning | The strategy focuses on the end product and not the process. Activities do not encourage the transformation of knowledge through authentic learning tasks |
| Multiple Perspectives | Learners are provided with the opportunity for social collaboration and negotiation. Collaborative learning is evident for the mutual construction of knowledge | Learners are provided with the opportunity for social collaboration and negotiation. Some collaborative learning is evident, however, activities do not support re-construction of knowledge | Learners are not provided with the opportunity for social collaboration and negotiation. Collaborative learning is not evident for the mutual construction of knowledge |
| Situated Cognition | Situated Cognition is evident through the context and culture in which activities are presented. Authentic, real-world, engaging tasks are presented in a constructivist learning environment | Situated Cognition is somewhat evident through the context and culture in which activities are presented. Tasks are not engaging and\or authentic. Environment requires more constructivist strategies | Situated Cognition is not evident through the context and culture in which activities are presented. Authentic, real-world, engaging tasks are not presented |
| Reflexive Cognition | Learners are encouraged to be self-regulatory, self-aware and self-managed. Content is constructed to encourage learners to articulate personal theories and problem-solving processes | Learners are more or less encouraged to be self-regulatory, self-aware and self-managed. Content needs clarification in regards to allowing learners the opportunity to articulate personal theories and problem-solving processes | Learners are not encouraged to be self-regulatory, self-aware and self-managed. Content is not constructed to encourage learners to articulate personal theories and problem-solving processes |
| Cognitive Apprenticeship | Behavioral and cognitive modeling, along with coaching, are present in the lesson plan | Behavioral and cognitive modeling, along with coaching, are present in the lesson plan, however, a stronger presence is required | Behavioral and cognitive modeling, along with coaching, are not present in the lesson plan |
| Process-Based Evaluation | Learners are encouraged to be self-regulated | Learners are somewhat encouraged to be self-regulated | Learners are not encouraged to be self-regulated |
|  | Assessments examine learning outcomes | Assessments examine learning outcomes, however, use of new skills are not determined | Assessments do not examine learning outcomes |
| Driver and Oldham Model / 5 E Strategy | | | |
| Orientation (Engage) | | | |
| Orientation to course material | Objectives of this course are clearly identified and understood by the learner | Objectives of this course are somewhat identified and understood by the learner | Objectives of this course are not identified or understood by the learner |
|  | Course material is introduced in a clear and concise manner | Course material is introduced adequately however a clearer direction is required | Course material introduction is unclear and needs improvement |
| Elicitation of Ideas (Explore) | | | |
| Examination of Prior Conceptions | Previous ideas and preconceptions are prompted from the learner in a meaningful way | Previous ideas and preconceptions are prompted from the learner, however, more work is required to uncover prior conceptions | Previous ideas and preconceptions are not prompted from the learner |
| Restructuring of Ideas – Clarification and Exchange (Explain) | | | |
| Assist learners in understanding their own concepts and how they compare to others | Learners are given the opportunity to clarify their presently held beliefs and compare them to other individual’s concepts and beliefs. Self-regulatory behavior is encouraged | Learners are given limited opportunity to clarify their presently held beliefs and compare them to other individual’s concepts and beliefs | Learners are not given the opportunity or have limited exposure to clarify their presently held beliefs and compare them to other individual’s concepts and beliefs |
| Restructuring of Ideas – Exposure to Conflict | | | |
| Exposure to conflict assists in restructuring of ideas | Learners are exposed to a conflict situation to test their own perceptions | Learners are exposed to a conflict situation, however, a clearer connection needs to occur to assess if the presently held conception aligns with the presented concepts | Learners are not exposed to a conflict situation |
| Restructuring of Ideas - Construction of New Ideas | | | |
| Conceptual Structuring [See Assimilation and Accommodation] | The learner is given the opportunity to amend, exchange or ignore presented concepts. Enough time is allowed for self-reflection and higher level thinking to connect new knowledge to existing concepts | The learner is given the opportunity to amend, exchange or ignore presented concepts, however a clearer comparative analysis of their own concepts compared to others needs to be made. Limited attempt at re-structuring of new concepts is made | The learner is not given the opportunity to amend, exchange or ignore presented concepts |
| Restructuring of Ideas - Evaluation | | | |
| Conceptual Structuring | Learners are provided with the opportunity to examine the accuracy of the concepts learned | Learners are provided with the opportunity to examine the accuracy of concepts learned, however, a stronger evaluative process needs to be identified for examination of new concepts to occur | Learners are not provided with the opportunity to examine the accuracy of the concepts learned |
| Application of Ideas (Elaborate) | | | |
| Application of new concepts | Reinforcement of new behavior is encouraged through authentic real-world tasks to apply newly acquired learning | Learners are presented with authentic real-world tasks, however new learning concepts are not applied | Learners are not presented with authentic real-world tasks; new learning concepts are not tested |
| Review Change in Ideas (Evaluate) | | | |
| Review Conceptual Change | Learners have the opportunity to clearly assess their understanding (or change in ideas) in a meaningful way | Learners have the opportunity to assess their learning (or change of ideas), however a stronger mechanism is required to evaluate learning that occurred | Learners are not provided with the opportunity to assess their understanding (or change of ideas) in a meaningful way |
| Conceptual Change Model | | | |
| Assimilation and Accommodation | Learners are provided with the opportunity to allow for assimilation and accommodation through analyzing new knowledge to prior conceptions and allowing time for reflective thought on current/presented concepts. Alternatives need to be realistic, plausible and fruitful | Learners are provided with the opportunity to allow for assimilation and accommodation through analyzing new knowledge to prior conceptions, however, more time for reflective thought on current/presented concepts needs to occur | Learners are not provided with the opportunity to allow for assimilation and accommodation through analyzing new knowledge to prior conceptions and allowing time for reflective thought on current/presented concepts. Alternatives are not realistic, plausible and fruitful |

Components taken from:

Beers, M & Belfar, K. (2012). Set criteria for constructivist elements. University of British

Columbia, ETEC 530.

So, W. (2002). Constructivist Teaching in Primary Science.*Asia-Pacific Forum on Science*

*Learning and Teaching,* 3 (1). Retrieved from

<http://www.ied.edu.hk/apfslt/v3_issue1/sowm/sowm3.htm>