First Author:

## Content Rubric: Learning Cycle Activity

| Content Learning Objectives 0 1 2 3 | Identify at least one strength related to the content learning objectives. Explain why it is a strength. | Identify at least one improvement related to the content learning objectives. Explain why this would be an improvement. |
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| 1a. No more than three key concepts as learning objectives are stated clearly and phrased appropriately on Activity Submission Form. |  |  |
| 1b. Activity is likely to lead students to achieve the content learning objectives. |  |  |
| 1c. Questions in activity allow assessment of student achievement of content learning objectives. |  |  |
| Content Accuracy $\begin{array}{lllll}0 & 1 & 2 & 3\end{array}$ | Identify at least one strength related to the content accuracy. Explain why it is a strength. | Identify at least one improvement related to the content accuracy. Explain why this would be an improvement. |
| 2a. Models and questions lead students to accurate content understanding. |  |  |
| 2 b . Models and questions help students to avoid or explicitly confront common misconceptions. |  |  |
| Learning Cycle Structure $\begin{array}{llll} \hline 0 & 1 & 2 & 3 \end{array}$ | Identify at least one strength related to the learning cycle structure. Explain why it is a strength. | Identify at least one improvement related to the learning cycle structure. Explain why this would be an improvement. |
| 3a. Each model is clearly presented and is an appropriate set of data or exemplars that provides enough evidence or information to achieve intended content objectives. |  |  |
| 3b. Exploration questions require students to engage with the model. |  |  |
| 3c. Invention questions are sequenced to require critical thinking that leads to concept development. |  |  |
| 3d. Application is present and extends ideas in a meaningful and logical manner. |  |  |
| Diversity and Inclusion 000180 | Identify at least one strength related to diversity and inclusion. Explain why it is a strength. | Identify at least one improvement related to diversity and inclusion. Explain why this would be an improvement. |
| 4a. Models promote inclusion by choosing language (i.e. names) and graphics that are audience appropriate and accessible to diverse student populations. |  |  |
| 4 b . Questions promote inclusion by choosing language that is audience appropriate and accessible to diverse student populations. |  |  |
| Clarity and Flow 0 | Identify a least one strength related to clarity and flow. Explain why it is a strength. | Identify at least one improvement related to clarity and flow. Explain why this would be an improvement. |
| 5a. Questions are phrased clearly and are likely to elicit the intended response from students. |  |  |
| 5 b . Sequence of questions flows logically and avoids conceptual leaps, unnecessary repetition, or content unrelated to learning objectives. |  |  |

Assessment Key: $\quad$| $0=$ No explicit evidence regarding this indicator. |
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| 2 = Some evidence of meeting this goal, but significant improvement needed. |
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| 3 |$=$ Substantial or exidence of meeting this goal, but improvements would substantially improve the activitence of meeting this goal. Improvements are not essential.

