### The Literacy-infused Inquiry Model *(Italics denote emphasis on literacy)*

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5E Model</strong></td>
<td><strong>Literacy Inquiry Model</strong></td>
</tr>
</tbody>
</table>
| Engage  | • Engaging students in experiments that trigger their prior knowledge  
• Engaging students in problems or situations that they need to solve  
• Engaging students in experiments, video demonstration, and/or *reading activity to explore a phenomenon*  
• Students or teacher introduce a problem to explore and solve |
| Explore | • Students exploring the earlier activity further through hands-on activities  
• Students exploring and *discussing the activity/problem further*  
• *Students presenting their initial understanding* |
| Explain | • Students providing explanation  
• Teacher providing the necessary vocabulary, concepts, and explanation  
• *Students learning the necessary vocabulary, concepts, and epistemic practices involved in constructing explanation (using the PRO strategy)*  
• *Students writing explanation* |
| Elaborate | • Students applying their new knowledge to related but new situations  
• Students applying their new knowledge to related but new situations  
• *Students presenting their ‘elaboration’* |
| Evaluate | • Teachers evaluating students’ conceptual understanding  
• Teachers or students evaluating conceptual understanding |

## The Inquiry Process and Literacy Features Integrated

<table>
<thead>
<tr>
<th>5E Stage</th>
<th>Inquiry features</th>
<th>Literacy features</th>
</tr>
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</table>
| Engage   | • Framing driving questions  
          | • Carrying out experiments | • Reading articles  
          |                  | • Writing prediction and initial explanation  
          |                  | • Having class discussion |
| Explore  | • Carrying out experiments  
          | • Collecting evidence | • Writing observations and hypothesis  
          |                  | • Translating inscriptions across multiple modes |
| Explain  | • Explaining observed phenomena  
          | • Applying content knowledge | • Teaching / learning structure of explanations (using PRO)  
          |                  | • Writing explanations (using PRO) |
| Elaborate| • Explaining new but related phenomena | • Writing explanations (using PRO)  
          |                  | • Presenting explanations (using PRO) |
| Evaluate | • Evaluating explanations | • Presenting explanations  
          |                  | • Critiquing explanations |