### Table 2. Steam concepts and skills explored during the Steam-Ed project

<table>
<thead>
<tr>
<th>CONCEPTS</th>
<th>Science</th>
<th>Technology</th>
<th>Engineering</th>
<th>Art (Visual Arts):</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sound</strong></td>
<td>Energy, Sound (sources of different sounds, reflection, pitch, loudness), Sound Waves, Transmission of Sound Through Materials, Muffling Sound, Properties &amp; Characteristics of Materials</td>
<td>Designing &amp; Creating Prototypes, Electrical Circuits, Makey Makey Kits, Sensors</td>
<td>The Engineering Design Process</td>
<td>Drawing, Construction, Properties and character of materials, Textiles (art elements and principles shape, form, texture, pattern &amp; rhythm, space, balance)</td>
<td>Shape &amp; Space (patterns, spatial awareness), Measure (length, area), Data (representing and interpreting data interpreting data)</td>
</tr>
<tr>
<td><strong>Movement</strong></td>
<td>How different Sources of energy Move, Simple Machines, Forces, Friction &amp; Momentum</td>
<td>Designing &amp; Creating prototypes (simple machines), Electrical Circuits, Movement of Light &amp; Sound Waves, Bee Bots</td>
<td>The Engineering Design Process</td>
<td>Drawing, Color, Construction, (art elements and principals -shape, form, color and tone, texture, pattern &amp; rhythm, space, balance, movement and how these interplay)</td>
<td>Shape &amp; Space (patterns, spatial awareness, 3-d shapes, 2-d shapes, symmetry, lines &amp; angles), Measure (length, area, capacity), Data (representing and interpreting data interpreting data)</td>
</tr>
</tbody>
</table>

**STEAM Practices**
- Asking Questions & Defining Problems
- Making Observations
- Looking for Patterns
- Problem Solving
- Critical Thinking
- Planning & Carrying Out Investigations
- Constructing Explanations & Designing Solutions
- Developing Possible Solutions
- Data Collection
- Optimizing the Design Solution
- Developing & Using Models
- Spatial Awareness
- Drawing for Design
- Communicating & Expression
- Engaging in Argument from Evidence
- Reasoning
- Integrating & Connecting
- Understanding & Recalling