

## SCIENCE AND MATH CONCEPTS

<b>Knowledge/Content</b> Recall and understand	<b>Process Thinking</b> How we understand content	<b>Communication</b> Convey content and process thinking
<p><b>Science—study of natural world</b></p> <ul style="list-style-type: none"> <li>• Life Sciences—living things</li> <li>• Physical Sciences—physical properties of objects</li> <li>• Earth &amp; Space Sciences—earth environment, weather, solar system</li> <li>• Use of Tools—uses tools and technology to perform tasks and to investigate</li> </ul>	<ul style="list-style-type: none"> <li>• Observing and investigating</li> <li>• Exploring                             <ul style="list-style-type: none"> <li>○ How things work</li> <li>○ Different perspectives</li> </ul> </li> <li>• Questioning</li> <li>• Wondering</li> <li>• Predicting/Hypothesizing</li> <li>• Noticing cause and effect</li> <li>• Experimenting</li> <li>• Collecting data</li> <li>• Analyzing data</li> <li>• Drawing conclusions</li> <li>• Estimating</li> <li>• Comparing/contrasting</li> <li>• Sequencing</li> <li>• Noticing, continuing, making patterns</li> <li>• Problem solving</li> <li>• Thinking creatively</li> <li>• Making connections</li> <li>• Exploring different perspectives</li> </ul>	<p><b>Includes both adults modeling the behaviors and children using the behaviors</b></p> <ul style="list-style-type: none"> <li>• Using non-verbal and verbal language</li> <li>• Saying what observed</li> <li>• Saying what happened</li> <li>• Explaining reasoning</li> <li>• Sharing/reporting discoveries, ideas, challenges, conclusions</li> <li>• Asking for help</li> <li>• Asking open-ended questions</li> <li>• Using science and math vocabulary</li> <li>• Using process thinking vocabulary</li> <li>• Representing including drawings, pictures, photos, charts</li> <li>• Learning collaboratively</li> </ul>
<p><b>Math—Measurement, Quantity, Relationships</b></p> <ul style="list-style-type: none"> <li>• Numbers and Operations</li> <li>• Characteristics, Classification, Patterns</li> <li>• Geometry and Spatial Relationships</li> <li>• Comparison and Measurement</li> <li>• Time and Sequence</li> </ul>		