

FOI OF INSTRUCTIONAL MATERIALS

	Structural Critical Components		Instructional Critical Components	
	Procedural	Educative	Pedagogical	Student Engagement
Common to Mathematics and Science	<p><i>Time</i></p> <ol style="list-style-type: none"> <li>Duration of unit</li> <li>Time spent on instruction</li> </ol> <p><i>Order</i></p> <ol style="list-style-type: none"> <li>Lesson order</li> <li>Order of segments and activities within lesson</li> </ol> <p><i>Inclusion</i></p> <ol style="list-style-type: none"> <li>Inclusion of all essential segments within lesson</li> <li>Inclusion of all essential lessons</li> </ol> <p><i>Pre-Lesson</i></p> <ol style="list-style-type: none"> <li>Lesson overview</li> <li>Lesson preparation</li> </ol> <p><i>Essential Program Elements</i></p> <ol style="list-style-type: none"> <li>Materials presence</li> <li>Writing structures</li> <li>Readings</li> <li>Assessments and assessment tools</li> <li>Content of lesson                             <ol style="list-style-type: none"> <li>Procedures</li> <li>Facts</li> <li>Concepts</li> <li>Processes</li> </ol> </li> <li>Use of class structures</li> <li>Use of instructional delivery formats</li> </ol> <p><i>Non-Essential Program Elements</i></p> <ol style="list-style-type: none"> <li>Projects*</li> <li>Extensions*                             <ol style="list-style-type: none"> <li>Discipline-related</li> <li>Non-discipline-related</li> </ol> </li> <li>Additional resources*</li> <li>Homework*</li> </ol>	<ol style="list-style-type: none"> <li>Content background information</li> <li>Pedagogy background information</li> <li>National standards and benchmarks information*</li> <li>Lesson notes</li> </ol>	<p><i>Facilitating student engagement with others</i></p> <ol style="list-style-type: none"> <li>Teacher facilitation of group work</li> <li>Teacher facilitation of student discussion</li> </ol> <p><i>Facilitating student engagement with content</i></p> <ol style="list-style-type: none"> <li>Teacher facilitation of students doing potentially intellectually challenging work</li> <li>Teacher emphasis on types of content</li> </ol> <p><i>Facilitating student role as learner</i></p> <ol style="list-style-type: none"> <li>Teacher facilitation of student autonomy</li> <li>Teacher facilitation of students taking risks</li> <li>Teacher facilitation of student interest</li> </ol> <p><i>Pedagogical strategies</i></p> <ol style="list-style-type: none"> <li>Teacher facilitation of materials, manipulatives and tools</li> <li>Teacher use of assessment to inform instruction</li> <li>Teacher use of differentiation</li> </ol>	<p><i>Students engage with others</i></p> <ol style="list-style-type: none"> <li>Students contribute to small group work</li> <li>Students engage in discussion</li> </ol> <p><i>Students engage with content</i></p> <ol style="list-style-type: none"> <li>Students do potentially intellectually challenging work</li> </ol> <p><i>Students develop role as learner</i></p> <ol style="list-style-type: none"> <li>Students demonstrate autonomy</li> <li>Students take risks</li> </ol> <p><i>Students use the materials</i></p> <ol style="list-style-type: none"> <li>Students do/complete essential activities</li> <li>Students do/complete optional or non-essential activities</li> </ol>
Common to Science		A. Safety	A. Teacher facilitation of data collection	A. Students collect data
Common to Mathematics	A. Unit Order		A. Teacher supports multiple solution strategies	A. Students use multiple solution strategies