

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> <p>1. Duration of unit</p> <p>2. Time spent on instruction</p> <p><i>Order</i></p> <p>3. Investigation/Lesson order</p> <p>4. Order of segments and activities within lesson</p> <p><i>Inclusion</i></p> <p>5. Inclusion of all essential segments within a lesson</p> <p>6. Inclusion of all essential lessons</p> <p><i>Pre-Lesson</i></p> <p>7. Lesson overview</p> <p>8. Lesson preparation</p> <p><i>Essential Program Elements</i></p> <p>9. Materials presence</p> <p>10. Writing structures</p> <p>11. Readings</p> <p>12. Assessments and assessment tools</p> <p>13. Content of lesson</p> <p>a. Procedures</p> <p>b. Facts</p> <p>c. Concepts</p> <p>d. Processes</p> <p><i>Non-Essential Program Elements</i></p> <p>14. Projects*</p> <p>15. Non-discipline-related extensions*</p> <p>16. Discipline-related extensions*</p> <p>17. Additional resources*</p> <p>18. Additional computer/web resources*</p> <p>19. Physical environment conducive to student learning*</p>	<p>1. Content background information</p> <p>2. Pedagogy background information</p> <p>3. Assessment background information</p> <p>4. National standards and benchmarks information*</p> <p>5. Lesson notes</p>	<p><i>Facilitating student engagement with others</i></p> <p>1. Teacher facilitation of group work</p> <p>2. Teacher facilitation of student discussion</p> <p><i>Facilitating student engagement with content</i></p> <p>3. Teacher facilitation of students doing intellectually challenging work</p> <p>4. Teacher facilitation of students making connections</p> <p>5. Teacher facilitation of student communication</p> <p>6. Teacher emphasis on types of content</p> <p><i>Facilitating student role as learner</i></p> <p>7. Teacher facilitation of student autonomy</p> <p><i>Pedagogical strategies</i></p> <p>8. Teacher facilitation of materials, manipulatives and tools</p> <p>9. Teacher use of a variety of class structures</p> <p>10. Teacher use of a variety of instructional delivery formats</p> <p>11. Teacher use of assessment to inform instruction</p> <p>12. Teacher use of multiple modes of assessment</p> <p>13. Teacher use of differentiation</p>	<p><i>Students engage with others</i></p> <p>1. Students contribute to small group work</p> <p>2. Students engage in discussion</p> <p><i>Students engage with content</i></p> <p>3. Students do intellectually challenging work</p> <p>4. Students make connections</p> <p>5. Students communicate</p> <p><i>Students develop role as learner</i></p> <p>6. Students demonstrate autonomy</p> <p><i>Students use the materials</i></p> <p>7. Students do/complete essential activities</p> <p>8. Students do/complete optional or non-essential activities</p>	
	Common to Science Programs		A. Safety	A. Teacher coordination of reading and science instruction	A. Students observe and describe
	Common to Mathematics Programs	A. Unit order		A. Teacher supports multiple solution strategies	A. Students use multiple solution strategies