

*George Mason University
College of Education and Human Development
Early Childhood Education Program*

EDUT 615
Mathematics and Science for Diverse Young Learners (3:3:0)
Fall 2009
Wednesdays, 7:20 – 10:00 pm
Robinson B 120

Professor: Shevine Holeman
Telephone: (757) 329-7762
Email address: sholeman@gmu.edu

Course Description

Prerequisite: Admission to the Early Childhood Education program or permission of the instructor. Examines ways to foster development of mathematics and science in preschool to third-grade children. Covers construction of math and science lessons and hands-on experiences that address the needs of culturally, linguistically, and ability diverse children. Field Experience Required. All students are required to register with Lauren Clark, Field Placement Specialist for a field experience. Her e-mail address is lclark@gmu.edu. The website for registration is <http://cehd.gmu.edu/endorse/ferf>. Please allow 3-4 weeks for placement. October 15th is the deadline for registration.

Nature of Course Delivery

The class will have lecture, discussion, group work formats and will require active participation of all students.

Learner Outcomes

This course is designed to enable students to

1. Develop an understanding of the changing focus in both curricula and pedagogy at the early childhood level and implications for math and science instruction.
2. Develop strategies to help young children become mathematically and scientifically literate, think critically and creatively, and to see the relationships between mathematics, science, social studies, and language/literacy.
3. Develop the skills necessary to utilize a variety of methods in teaching mathematics and science to young children.
4. Develop insight in selecting, modifying, and presenting instructional activities in mathematics and science.
5. Develop science activities for young children using the scientific process with an emphasis on describing, analyzing, and quantitatively presenting findings.
6. Construct math and science experiences in an environment that promotes equity and responds to cultural, linguistic, and ability diversity.
7. Use local curriculum standards for mathematics and science, the Virginia Standards of Learning for science and mathematics, the standards identified by

- the National Council of Teachers of Mathematics, and the National Science Education Standards to plan instruction.
8. Describe the role of family and community knowledge, experience, and resources in planning and implementing mathematics and science content in the curriculum.
 9. Use a variety of sources for ideas and materials useful in teaching mathematics and science when planning instruction.
 10. Integrate mathematics and science objectives into planning and implementing an integrated project.
 11. Use authentic assessment strategies to describe young children's understanding of mathematics and science concepts.
 12. Reflect on one's own use of inquiry strategies in facilitating children's learning of mathematics and science concepts.

Professional Standards

This concentration is approved for licensure in the Commonwealth of Virginia and it complies with the standards for teacher licensure established by the National Association for the Education of Young Children. The course content has been designed to address the following performance-based assessment standards of these organizations.

National Association for Early Childhood Education (NAEYC)

- Standard 2 Promoting Child Development and Learning
- Standard 3 Observing, Documenting, and Assessing to Support Young Children and Families
- Standard 4 Teaching and Learning

Virginia Early Childhood Education Endorsement Competencies

- Mathematics
- Science

Required Texts

Chaillé, C., & Britain, L. (2002). *The young child as scientist: A constructivist approach to early childhood education* (3rd ed.). Boston: Allyn and Bacon.

Charlesworth, R. & Lind, K. (2006). *Math and science for young children* (6th ed.). Clifton Park, NY: Delmar.

Smith, S. S. (2008). *Early childhood mathematics* (4th ed.). Boston: Allyn and Bacon.

Additional Resources

Baratta-Lorton. (1995). *Mathematics their way*. Menlo Park, CA: Addison Wesley.

Cowhey, M. (2006). *Black ants and Buddhists: Thinking critically and teaching differently in the primary grades*. Portland, ME: Stenhouse.

Harlan, J.D., & Rivkin, M.S. (2008). *Science experiences for the early childhood years: An integrated affective approach* (9th ed.). Upper Saddle River, NJ: Pearson.

National Council of Teachers of Mathematics. (1989). *Curriculum and evaluation standards for school mathematics*. Reston, VA: Author. <http://standards.nctm.org/>
National Research Council. (1996). *National Science Education Standards*. Washington, DC: National Academy Press. <http://www.nap.edu/readingroom/books/nses/>
Virginia Department of Education. *Standards of Learning for Virginia Public Schools*. <http://www.doe.virginia.gov/go/Sols/home.shtml>

General Requirements

1. The completion of all readings assigned for the course is assumed. Because the class will be structured around discussion and small group activities, it is imperative that students keep up with the readings and participate in class.
2. Class attendance is important. If, due to an emergency, students will not be in class, they must call the instructor and leave a message.
3. The university requires that all pagers and cell phones be turned off before class begins. Laptops and other electronic devices are to be used for educational and learning purposes only and should not be used during class time to check email, surf the web, or communicate with people outside of the class unless part of the class activity.
4. It is expected that assignments will be turned in on time (the beginning of the class in which they are due). However, it is recognized that graduate students occasionally have serious problems that prevent work completion. If such a dilemma arises, students should speak to the instructor in a timely fashion.

Attendance

Attendance in class is important to students' learning; therefore, students are expected to make every effort to attend class sessions. **Absences, tardiness, and leaving early may negatively affect course grades.** The following policy is from the university course catalog:

Students are expected to attend the class periods of the courses for which they register. In-class participation is important not only to the individual student, but also to the class as a whole. Because class participation may be a factor in grading, instructors may use absence, tardiness, or early departure as de facto evidence of nonparticipation. Students who miss an exam with an acceptable excuse may be penalized according to the individual instructor's grading policy, as stated in the course syllabus.

Written Assignments

All written assignments prepared outside of class will be evaluated for content and presentation as graduate-level writing. The American Psychological Association, Fifth Edition (APA) style will be followed for all written work. All written work unless otherwise noted must be completed on a word processor and should be proofread carefully. (Use spell check!) If students are not confident of their own ability to catch errors, they should have another person proofread their work. **Points may be deducted for errors in assignments (typographical and grammatical) and for late submissions.**

When in doubt, they should check the APA manual. Portions of the APA manual appear at the Style Manuals link on the GMU library web guide at <http://library.gmu.edu/resources/edu/>.

Students will

1. Present ideas in a clear, concise, and organized manner. (Avoid wordiness and redundancy.)
2. Develop points coherently, definitively, and thoroughly.
3. Refer to appropriate authorities, studies, and examples to document where appropriate. (Avoid meaningless generalizations, unwarranted assumptions, and unsupported opinions.)
4. Use correct capitalization, punctuation, spelling, and grammar.

Grading Criteria

A = 95 – 100

A- = 90 – 94

B+ = 87 – 89

B = 83 – 86

B- = 80 – 82

C = 70 – 79

F = < 70

A+ is possible if work is of exceptional high quality and includes work above and beyond that required for the course.

Grading Policy

Students in a graduate program must maintain a 3.000 GPA (B average). Endorsement coursework grades must be C or better for undergraduate courses, and B or better for graduate courses. Grades of B minus or better are required for all graduate-level education coursework for licensure. Students with a C or lower in a licensure course must re-take the course and earn a B minus or better to be recommended for Virginia licensure. Only two grades of C will be allowed for completion of the master's degree.

Assignments are due by 7:20 p.m. of the class which they are due or points may be deducted. Assignments may be submitted in class or by e-mail (or both to the George Mason e-mail account). This policy will be enforced.

Assignments

Attendance and Participation (15 points)

Because active participation and engagement are imperative for optimal learning, preparation for and participation in in-class activities will be evaluated based on the following criteria:

- Students attend class, arrive on time, and stay for the entire class period.

- Students complete readings and prepare for class activities prior to class as is evidenced by their ability to discuss and write about the concepts presented and examined in the texts as well as participate fully in related activities.
- Students are actively involved in in-class learning experiences as is evidenced by (1) participating in all activities, (2) engaging in small and large group discussions, (3) completing written work related to the activities, and (4) supporting the participation and learning of classmates.
- Students show evidence of critical reflective thinking through in-class discussions, activities, and written reflections.
- **Points may be deducted for absences, tardiness, early departures, or lack of participation in discussions.**

Teaching/Learning observation (10 points)

Students will observe at least one math lesson or science lesson, at the site being used for a field experience. They will consider what concepts were being addressed. What were the instructional objectives? Were there any individual objectives? How was this communicated? What standards are being utilized? What would a child need already to understand in order to be successful in this activity? How was mastery communicated? If the objective was not mastered, how was that communicated? What would be the next step? They will focus on what is being taught, what is being learned, and *what is not being learned*. They will prepare a brief paper that describes their understanding of what was being taught and how well it was learned by at least two children. They will provide specific linkages to the readings (**Rubric provided below**).

Informal Assessment (20 points)

In order to understand how children think about various science concepts, students will choose one child from the field experience classroom to interview. In this interview, they will find out what this child knows about a selected science or math concept (selected from the text and/or from state or national standards). They will use an open-ended interview (consider, for example, the class discussion of questioning strategies and Chaillé and Britain's approach). They will ask the child to demonstrate his/her knowledge with manipulatives or with a drawing. Based on the conversation with this child, as well as the child's drawing or demonstration, they will develop a brief paper which includes the following:

- 1) The child's age/grade and a brief description of any prior understanding of the child;
- 2) The concept investigated and why;
- 3) A description of the interview and what the child demonstrated or drew during the interview;
- 4) An analysis of what was learned about the child's understanding; and

5) A brief description of the types of experiences that would enrich the child's understanding of the concept investigated.

Students will include any adaptive strategies that would promote gender, ethnic, and ability equity in addressing this concept with this child and will reflect on what was learned about children and math or science teaching/learning. They will provide support and documentation from the interview and class readings. They will use the readings to support the interview approach. **NOTE: This should feel like a conversation not a test for the children. This should be new data, not revisiting previous assessments. (Rubric provided below)**

Math/Science Instructional Project (55 points)

Each student will participate in planning an integrated project approach based on his/her field experiences. Project plans must demonstrate ties to local, state, and national standards in math and science. The project will consist of the following components:

Lesson Plan (20 of 55 points)

Students will develop a broad description of the project plan. Each student will develop lesson plans, based on the UTEEM planning format **(10 points)**.

Students will discuss how their own learning experiences in math and science, knowledge of the students, and knowledge of instructional design affected the design of the lesson plan components **(10 points) (Rubric provided below)**.

Teaching Analysis (20 of 55 points)

Students will maintain a reflective teaching log based on math/science teaching practices. On a **daily basis**, they will describe and reflect (briefly - jottings are fine) on each math or science lesson taught or observed, or any math or science learning that occurs incidentally **(at least 10 entries)**. They will prepare a paper which discusses what was learned, what was easy or hard, what was enjoyable, what was frightening to try, what is still unclear. Based on teaching experiences, what were teaching strengths related to math/science instruction? How were families connected through homework assignments or take home projects? Students will develop goals for the future.

In the paper, cite readings, as well as class discussions to support analysis. They will demonstrate specific adaptations made for children with special needs and efforts to establish a community, culturally, and linguistically relevant environment **(Rubric provided below)**.

Materials/Resources Compilation (Connecting to Standards) (15 of 55 points)

As an **on-going project**, compile a list of references and resources centered on one of the

science or mathematics standards from the Virginia Standards of Learning for grades K-3. The SOLs can be accessed at <http://www.doe.virginia.gov/go/Sols/home.shtml>.

Students will address and discuss the standard using the following criteria:

- Strategies that could be used to help children learn about the concept. (Include issues of equity and access);
- List of potential field trips (can be virtual), guest speakers, or community resources connected to the standard with a brief explanation of the connections between the standard and the presenter and preparations to be made before the visit or speaker;
- Children's literature that could be used to support instruction around this concept;
- Technology resources (for use by children) appropriate for this concept;
- Activities that connect families to projects, homework assignments, or at home enrichment activities;
- Teacher references and resources to provide background information on the concept and methods for teaching about the standard;
- Hands-on manipulatives and other materials such as songs, poems, fingerplays, games etc., to support this concept; and
- Develop a final reflection on the process of gathering resources reflecting on new understanding of the concept and why it is important (**Rubric provided below**).

CEHD Syllabus Statements of Expectations

All students must abide by the following:

- Students are expected to exhibit professional behavior and dispositions. See <http://gse.gmu.edu/facultystaffres/profdisp.htm> for a listing of these dispositions.
- Students must follow the guidelines of the University Honor Code. See <http://www.gmu.edu/catalog/apolicies/#Anchor12> for the full honor code.
- Students must agree to abide by the university policy for Responsible Use of Computing. See <http://www.gmu.edu/facstaff/policy/newpolicy/1301gen.html>. Click on responsible Use of Computing Policy at the bottom of the screen.
- Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See <http://www.gmu.edu/student/drc/> or call 703-993-2474 to access the DRC.

Note: To determine whether the campus is closed due to inclement weather, call 703-993-1000 or go to www.gmu.edu.

Course Schedule

Date	Topic	Readings & Assignments Due
Sep 2	Meaningful math and science learning	Charlesworth 1-7
Sep 9	Introduction to content standards Math and science standards	Chaille 1,2
Sep 16	Cognitive aspects of math and science	Smith 5,6
Sep 23	Constructivist environments to support math/science learning	Chaille 3
Sep 30	Inquiry-based approach to teaching science	Chaille 4,8; Smith 1
Oct 7	Focus on science instruction for diverse young children	Chaille 5-7; Charlesworth 5,33
Oct 14	The language of math and science	Smith 4
Oct 21	Authentic math and science assessment—addressing the needs of diverse learners Questioning techniques	Smith 2,3; Charlesworth 4
Oct 28	Using community resources to enhance math and science instruction: guest speakers and field trips	Charlesworth 39 Teaching/Learning Observation due
Nov 4	Focus on math instruction for diverse young learners	Smith 7-9; 10-11; Charlesworth 3, 15 Informal Assessment due
Nov 11	Mathematics content knowledge for teaching and learning Math and science across the disciplines	Smith 14; Charlesworth 22
Nov 18	Technology in early childhood math and science Science content knowledge for teaching and learning	Charlesworth 21 Materials Compilation for Math/Science project due
Nov 25	<i>Holiday: No Class</i>	
Dec 2	Instructional strategies to meet the needs of diverse learners	Charlesworth 40, 41 Lesson Plan for Math/Science project due
Dec 9	Resources and references for young children and math and science	Charlesworth 25, 26, 39; Chaille 8
Dec 16	Self-reflections on filling the role of math and science teacher for diverse young learners	Teaching Analysis for Math/Science project due Article reading and analysis

**Math/Science Project---Lesson Plan Evaluation Rubric—Math or Science Lesson
(20 points of 55 points)**

	Exceeds Expectation	Meets Expectations	Does Not Meet Expectations	Points
Lesson Overview <i>3 points</i>	Provides a detailed description of the lesson concept, standards, vocabulary, and classroom context that provides a complete and clear foundation for the lesson	A description of the lesson concept, standards, vocabulary, and classroom context	Provides a limited or incomplete description of the lesson concept, standards, vocabulary, and classroom context	
Goals/ Objectives <i>3 points</i>	Complete and appropriate goals, whole group objectives, objectives individual groups of children, and objectives for individual children	A description of goals, group and individual objectives	Missing or inappropriate goals and objectives	
Teaching/ Learning Procedures and Materials <i>4 points</i>	A clear plan for introductory activities, step by step procedures, and summary activities as well as needed materials for students and teachers that provides all needed information to implement the lesson	A description of introductory activities, step by step procedures, and summary activities as well as needed materials for students and teachers	Missing or incomplete description of teaching and learning procedures and materials so the lesson could not be implemented	
Links to Family Knowledge <i>3 points</i>	Strong evidence of links to family /community knowledge and experience including follow-up experiences at home	Evidence of links to family/ community knowledge and experience including follow-up experiences at home	Limited or artificial links to family /community knowledge and experience without follow-up experiences	
Adaptations for Individual Learners <i>3 points</i>	Strong evidence of use of adaptive strategies that facilitate gender, cultural, linguistic, and ability equity and accommodate different learning styles	Evidence of use of adaptive strategies that facilitate gender, cultural, linguistic, and ability equity and accommodate different learning styles	Lack of meaningful use of adaptive strategies to promote equity and meet the needs of different learners	
Orchestration and Assessment <i>4 points</i>	Strong evidence of attention to orchestration and assessment including management procedures and appropriate assessment(s) to appropriately manage and monitor student learning	Evidence of attention to orchestration and assessment including management procedures and appropriate assessment(s)	Limited or no attention to orchestration and assessment	

Math/Science Project---Teaching Analysis Evaluation Rubric (20 of 55 points)

	Exceeds Expectation	Meets Expectations	Does Not Meet Expectations	Points
Reflective Log <i>5 points</i>	Daily jotting from each day of the field experience that 1) describes each math or science lesson you teach or observe, or any math or science learning that occurs incidentally 2) includes a brief reflection on something that stood out to you from the experience 3) provides a clear and thorough account of the math or science lesson	Daily jotting from each day of the field experience that 1) describes each math or science lesson you teach or observe, or any math or science learning that occurs incidentally 2) includes a brief reflection on something that stood out to you from the experience	Jottings that do not reflect daily recordings of each math or science lesson or experience and/or do not include a reflection on the lesson or experience	
Teaching Self Analysis <i>5 points</i>	Thorough analysis of yourself as a math and science teacher: -what you're learning about yourself -what was easy or hard -what you enjoyed -what you were afraid to try -goals for yourself	Analysis of yourself as a math and science teacher: -what you learning about yourself -what was easy or hard -what you enjoyed -what you were afraid to try -goals for yourself	Limited or incomplete analysis of yourself as a math and science teacher	
Connection to math or science teaching <i>5 points</i>	Detailed reflection that focuses specifically on the content areas of math and science to include -your strengths and weakness as a math or science teacher -a comparison of math versus science teaching experiences -a connect to course readings and discussion	Reflection that focuses specifically on the content areas of math and science to include -your strengths and weakness as a math or science teacher -a comparison of math versus science teaching experiences -a connect to course readings and discussion	No reflection that focuses specifically on the content areas of math and science and/or lack of connections to course readings	
Addressing the needs of diverse learners <i>5 points</i>	Specific descriptions that demonstrate that -you have made appropriate adaptations for children with special needs -you have made skillful adaptations to meet the needs of culturally and linguistically diverse children -you have worked to create a classroom community	Descriptions that demonstrate that -you have made adaptations for children with special needs -you have made adaptations to meet the needs of culturally and linguistically diverse children -you have worked to create a classroom community	No descriptions or evidence of minimal efforts to address the needs of diverse learners	

Math/Science Project---Resources Evaluation Rubric (15 of 55 points)

	Exceeds Expectation	Meets Expectations	Does Not Meet Expectations	Points
SOL/Link, Equity, Access <i>3 points</i>	<p>Thorough list of references and resources centered on one of the science or mathematics standards from the Virginia Standards of Learning for grades K-3. The SOLs can be accessed at http://www.doe.virginia.gov/go/Sols/home.shtml. Students will address and discuss the standard using the following criteria:</p> <p>Strategies that could be used to help children learn about the concept. (Include issues of equity and access)</p>	<p>Adequate list of references and resources centered on one of the science or mathematics standards from the Virginia Standards of Learning for grades K-3. The SOLs can be accessed at http://www.doe.virginia.gov/go/Sols/home.shtml. Students will address and discuss the standard using the following criteria:</p> <p>Strategies that could be used to help children learn about the concept. (Include issues of equity and access)</p>	<p>Limited to no list of references and resources centered on one of the science or mathematics standards from the Virginia Standards of Learning for grades K-3. The SOLs can be accessed at http://www.doe.virginia.gov/go/Sols/home.shtml.</p>	
Field Trips/ Technology/ Family Resources <i>3 points</i>	<p>Thorough list of potential field trips (can be virtual), guest speakers, or community resources connected to the standard with a brief explanation of the connections between the standard and the presenter and preparations to be made before the visit or speaker.</p> <p>Thorough list of children’s literature that could be used to support instruction around this concept.</p> <p>Thorough list of technology resources (for use by children) appropriate for this concept.</p>	<p>Adequate list of potential field trips (can be virtual), guest speakers, or community resources connected to the standard with a brief explanation of the connections between the standard and the presenter and preparations to be made before the visit or speaker.</p> <p>Adequate list of children’s literature that could be used to support instruction around this concept.</p> <p>Adequate list of technology resources (for use by children) appropriate for this concept.</p>	<p>Limited to no list of potential field trips (can be virtual), guest speakers/community resources, children’s literature, and technology resources connected to the standard with a brief explanation of the connections</p>	
Family Connection/ Teacher References/ Hands on Manipulatives <i>3 points</i>	<p>Thorough list of activities that connect families to projects, homework assignments, or at home enrichment activities.</p> <p>Thorough list of teacher references and resources to provide background information on the concept and methods for teaching about the standard.</p> <p>Thorough list of hands-on manipulatives and other materials such as songs, poems, fingerplays, games etc., to support this concept.</p>	<p>Adequate list of activities that connect families to projects, homework assignments, or at home enrichment activities.</p> <p>Adequate list of teacher references and resources to provide background information on the concept and methods for teaching about the standard.</p> <p>Adequate list of hands-on manipulatives and other materials such as songs, poems, fingerplays, games etc., to support this concept.</p>	<p>Limited to no list of activities that connect families to projects, homework assignments, or at home enrichment activities; teacher references; or hands-on manipulatives</p>	
Reflection <i>6 points</i>	<p>Thorough reflection on the process of gathering resources reflecting on new understanding of the concept and why it is important.</p>	<p>Adequate reflection on the process of gathering resources reflecting on new understanding of the concept and why it is important.</p>	<p>Limited to no reflection on the process of gathering resources reflecting on new understanding of the concept and why it is important.</p>	

Math/Science Lesson---Lesson Plan Analysis and Reflection Evaluation Rubric
Math or Science Lesson (10 points)

	Exceeds Expectation	Meets Expectations	Does Not Meet Expectations	Points
Strengths and Modifications <i>3 points</i>	Clear and complete analysis of the strengths of the lesson and what would be changed the next time the lesson is implemented	Description of the strengths of the lesson and what would be changed the next time the lesson is implemented	Lack of description of the strengths of the lesson and what would be changed the next time the lesson is implemented	
Future Directions of Math or Science Teaching <i>3 points</i>	Thoughtful and detailed reflections on how the math or science instruction will change or remain the same and the goals for him or herself as a math or science teacher of diverse young learners	Reflections on how the math or science instruction will change or remain the same and the goals for him or herself as a math or science teacher of diverse young learners	Limited or unclear reflections on how the math or science instruction will change or remain the same and the goals for him or herself as a math or science teacher of diverse young learners	
Connections to Course Readings <i>4 points</i>	The connections to course readings are meaningful, and support the ideas presented in the reflection	There are connections to course readings that provide some support for the ideas in the reflection	There are no connections to the course readings or the connections do not support the ideas in the reflection	

Interview---Informal Assessment Evaluation Rubric (20 points)

	Exceeds Expectation	Meets Expectations	Does Not Meet Expectations	Points
Description of Child and Concept <i>4 points</i>	Complete and detailed descriptions including 1) the age, grade, and your understanding of the child 2) the math or science concept and why you chose to use it as the interview concept	Descriptions including 1) the age, grade, and your understanding of the child 2) the math or science concept and why you chose to use it as the interview concept	Incomplete or missing descriptions of the child and the math or science concept	
Interview Description <i>4 points</i>	A thorough and clear description of the events that took place during the interview including what the child showed you in demonstration or picture	Description of the events that took place during the interview including what the child showed you in demonstration or picture	Limited description of the interview that does not include what the child showed you in demonstration or picture	
Analysis of child's understanding <i>4 points</i>	Thoughtful analysis of what you have learned about the child's understanding with an emphasis on the individual attributes of the child	Analysis of what you have learned about the child's understanding with an emphasis on the individual attributes of the child	Incomplete or missing analysis of what you have learned about the child's understanding that does not focus on the child as an individual	
Adaptive Strategies <i>4 points</i>	Detailed and complete description of types of experiences you could plan to enrich the child's understanding of the concept to incorporate adaptive strategies tailored to the individual child	Description of types of experiences you could plan to enrich the child's understanding of the concept to incorporate adaptive strategies tailored to the individual child	No descriptions of enriching experiences and/or lack of adaptive strategies tailored to the individual child	
Reflection <i>4 points</i>	Critically reflective thinking about what you learned about children, and math or science teaching and learning with connections to class readings and discussion. Thorough analysis of the questioning strategies you used and how well they reflect the concepts in Chaillé and Britain	Reflection on what you learned about children, and math or science teaching and learning with connection to class readings and discussions Analysis of the questioning strategies you used and how well they reflect the concepts in Chaillé & Britain	Limited or missing reflection on children and/or math or science teaching and learning without connection to class readings and discussions	

_PreK-3 Lesson Plan Format

Name:

Grade Level:

Date/Time:

Lesson Title	
Subject Area	
<i>Lesson Overview</i>	
Concept/Topic to Teach	
Standards Addressed	
Classroom context	
Vocabulary	
<i>Goals/Objectives</i>	
General Goal(s)	
Objectives	After completion of the lesson, students will be able to: (use action verbs) <ul style="list-style-type: none">•
Individual Objectives for groups of children	
Individual Objectives for particular children	
<i>Materials</i>	
Student Materials	
Teacher Materials	
<i>Teaching/Learning Procedures</i>	
Introductory activities	
Step by Step Procedures	1) 2) 3)
Summary Activities	
<i>Family and Community Resources</i>	
Contributions of family/community knowledge and experience	

Follow-up activities at home	
<i>Adaptations for Individual Learners and Developmental Needs</i>	
Strategies to ensure gender, cultural, linguistic, and ability equity	
Strategies to address multiple Learning Styles	
<i>Orchestration and Assessment</i>	
Management Procedures	
Assessments	