Teaching Mathematics with Children's Literature

Longwood University

Professional Studies *Non-Credit* Class

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***Class Description*:**
Children's Literature as a vehicle for teaching mathematics concepts, increasing mathematical language and writing, and enjoying real world math situations is the focus of this class. This is a non-credit bearing class and will not be reflected on a Longwood transcript. We recommend that it is equivalent in content and scope to a one credit graduate class or 30 recertification points.

***Class Overview*:**
You will explore a variety of children's books that can be used to teach concepts in geometry, pattern, number, data and statistics, measurement and problem-solving. Lesson ideas will be discussed, and participants will develop their own lesson as well as compile a bibliography of math-related literature pertinent to their grade level curriculum objectives. This class focuses mostly on K-6 books and mathematics concepts but can be very helpful for upper-grade remediation, special education, and concept reinforcement. Useful for teachers, school library media specialists, reading specialists, math specialists, homeschool instructors.

This class is designed to be self paced and does not require participants complete the work at the same time or participate in activities or discussions at the same time. However, reviewing what your fellow participants post and initiating discussions with them will greatly enhance your learning and overall experience.

***Text*:**
No text is required for this class. Readings will posted online. Students are encouraged to spend book funds on copies of children's books for their classroom instruction.

***Goals & Objectives*:**

Identify how children's literature is important to teaching mathematics

Explain the importance and role of story/narrative in the field of mathematics

Select children's books that model mathematics concepts relevant to your grade level

Plan lessons that preserve the integrity of the story, but allow students to learn and explore mathematical concepts through that story

Participate in course activities from the perspective of a student to better understand and apply those activities to your own lessons

SCHEDULE		
Dates	Topics	Assignments
Module 1 **Week 1**	**Introduction** **Why Teach Math with Children's Literature? Start with a Good Story**	Readings & activities
Module 2 **Week 2**	**Give Them Something They Can Replicate:** Selected texts that demonstrate modeling with corresponding activities	Work on text set and booklist Readings and activities Submit text set first slides for review before continuing
Module 3 **Week 3**	**Show Them That Math is Amazing!!** Selected texts that inspire awe and wonder at the world of mathematics	Work on text set and booklist Readings
Module 4 **Week 4**	**Make Real World & Cross Curricular Connections** Selected texts that enhance real world math and cross curricular connections.	Text set and booklist due Anonymous Class Survey

***Class Assignments*:** Instructions are provided for all assignments within the online class modules. These are general descriptions of the expectations.

Participate in Class Activities:
Each module will have at least one activity that you will be asked to complete, post your results, and reflect upon. These activities are assigned so you will have hands-on experience with potential lesson ideas you can use with your own students.

Text Set:
Select a mathematics concept and create an annotated text set of at least 5 different children's books which support that concept at a specified grade level or range of grade levels. Detailed instructions can be found in Canvas.

Booklist:
List 10 books you discovered during this class that you would like to be sure to use in your classroom in the future. Unlike the text set, these books can be related to any mathematical concept and be at any grade or reading level. They should not be books you selected for your text set. Your list should include the title, author, mathematical concept, and 2-3 sentences explaining why you selected the book and/or how you plan to use it in your mathematics instruction.

Class Grading:

Participation in Class Activities	40 points
Text Set	100 points
Booklist	60 points

Grading Scale

Non-credit classes are Pass/Fail. If you earn 160 points (80%), you receive a Pass for the class.

CLASS POLICIES

Student Responsibility:

It is your responsibility to inform yourself of, and to observe, all regulations and procedures required by the university. In no case will a regulation be waived or an exception granted because students plead ignorance of the regulation or assert that they were not informed of the regulation by an advisor or other authority.

Communication Policy:

The instructor will respond to student messages within 24-48 hours, generally through email. For all assignments, feedback will be delivered within one week of the due date.

Attendance & Participation Policy:

Attendance for online courses is determined by how many times and for how long you access the Canvas course (this information is available for each student to the instructor), your participation in the assignments, and your timeliness in submitting requested work or response. Online courses can get away from you if not carefully scheduled. Take the time to review your online commitments, schedule regular and consistent time to be online, and stick to the schedule. You are expected to participate in all Canvas activities. Failure to participate in Canvas activities may impair academic performance and result in a lower grade. You must assume full responsibility for an online presence.

Technical Assistance:

Please contact your instructor for assistance with Canvas.

Class Evaluation:

At the conclusion of the course, each student will have the opportunity to evaluate the class and instructor. Your feedback is important to us. Please take the time to complete the online evaluation.