

COURSE TITLE: EXPLORING EGYPT – ELEMENTARY GEOMETRY

Instructor: Ellen Moore

| WELCOME | | | | |
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| OUTCOME | ASSESSMENT | ACTIVITY | NYS STANDARDS Key ideas and Indicators NYC Region 1 Goals and Objectives | TIME IN MINUTES |
| <p>Recognizing the value of integrating technology as a resource tool in the dissemination of content area instruction, participants will be able to:</p> <p>Identify and integrate appropriate technology best practices to support content area instruction.</p> | <p>Face to Face Introductions Read Course Syllabus, Course Policies and Roadmap. Accessing media technology Post to assignments due.</p> | <p>Access and subscribe to http://www.unitedstreaming.com/logins/login_www.cfm?unique=38E679D1-BCDE-F2E8-752A0734AIDAE013 Click on 30 day free trial</p> | <p>NETS for Teachers: NETS II - Planning and Designing Learning Environments and Experiences. Goal 1 – To improve subject matter knowledge and promote the use of research-based instructional practices among mathematics teachers serving students in grades 3-10 in the targeted 27 high needs schools. Objective 1.2: To provide online tools and professional development opportunities for Lead teachers and mathematics coaches that will strengthen their content knowledge and increase their ability to collaborate Objective 1.3 Improve and expand teacher training on the effective integration of technology into the Mathematics curricula and instruction</p> | <p>120 minutes</p> |
| <p>Recognizing the value of integrating technology as a resource tool in the dissemination</p> | <p>Accessing media technology Post to assignments due.</p> | <p>“Search by Key Word” type in, <i>pyramids of Egypt</i> click “Go: Click on, <i>Elementary Video</i></p> | <p>NETS for Teachers: NETS II - Planning and Designing Learning</p> | <p>180 minutes</p> |

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| <p>of content area instruction, participants will be able to:</p> <p>Identify and integrate appropriate technology best practices to support content area instruction.</p> | | <p><i>Adventure: Ancient Times</i> Click the circled S next to Pyramids of Egypt Click “View Full Screen” sit back and enjoy! Double click on your computer screen to return to site.</p> <p>Group share and discussion</p> | <p>Environments and Experiences. Goal 1 – To improve subject matter knowledge and promote the use of research-based instructional practices among mathematics teachers serving students in grades 3-10 in the targeted 27 high needs schools. Objective 1.2: To provide online tools and professional development opportunities for Lead teachers and mathematics coaches that will strengthen their content knowledge and increase their ability to collaborate Objective 1.3 Improve and expand teacher training on the effective integration of technology into the Mathematics curricula and instruction</p> | <p>90 minutes</p> |
| <p>Understanding the potential to meet each child at his or her starting point and ensure substantial growth. Participants will be able to:</p> <p>Recognize instructional strategies that emphasize learning in the content area and that meet the varied learning styles of students.</p> | <p>Manipulative Tetrahedron Hexahedron (cube) Octahedron Dodecahedron Icosahedrons Post to assignments due.</p> | <p>Construct each shape using materials of your choice. For example, gum drops and toothpicks or straws.</p> | <p>NYS Standards for Math, Science and Technology: Standard 3 – Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry. Goal 2: To improve student academic achievement in mathematics in high-needs schools within Districts 9 and 10. Objective 2.1: Students will increase their aptitude for Mathematical Reasoning and Model/Multiple</p> | <p>180 minutes</p> |

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| <p>Understanding the potential to meet each child at his or her starting point and ensure substantial growth. Participants will be able to: Create a unit of study that supports learning activities, which promote student success.</p> <p>Recognize instructional strategies that emphasize learning in the content area and that meet the varied learning styles of students.</p> <p>Recognizing the value of integrating technology as a resource tool in the dissemination of content area instruction, participants will be able to:</p> <p>Identify and integrate appropriate technology best practices to support content area instruction.</p> | <p>Accessing Web resources Post to assignments due.</p> | <p>Group share and discussion</p> <p>Integrating Smartboard or desktop computers, projector and drop down screen go to: http://illuminations.nctm.org/tools/tool_detail.aspx?id=70# Click on <i>Student Sheets</i> Print sheet Explore and manipulate the <i>Geometric Tool</i> – click <i>Transparent</i> for best results</p> | <p>Representations demonstrated by an increase of 5 percentage points on local and state mathematics assessments.</p> <p>NYS Standards for Math, Science and Technology: Standard 3 – Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry. Goal 1 – To improve subject matter knowledge and promote the use of research-based instructional practices among mathematics teachers serving students in grades 3-10 in the targeted 27 high needs schools. Objective 1.2: To provide online tools and professional development opportunities for Lead teachers and mathematics coaches that will strengthen their content knowledge and increase their ability to collaborate Objective 1.3 Improve and expand teacher training on the effective integration of technology into the Mathematics curricula and instruction</p> | <p>120 minutes</p> <p>120 minutes</p> |
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| <p>Understanding the potential to meet each child at his or her starting point and ensure substantial growth. Participants will be able to: Create a unit of study that supports learning activities, which promote student success.</p> <p>Recognize instructional strategies that emphasize learning in the content area and that meet the varied learning styles of students.</p> <p>Recognizing the value of integrating technology as a resource tool in the dissemination of content area instruction, participants will be able to:</p> <p>Identify and integrate appropriate technology best practices to support content area instruction.</p> | <p>Five Platonic Solids Post to assignments due.</p> | <p>Group share</p> <p>Mid-Term Manipulating the Geometric Tool and working with worksheet graphics, fill in the required information Group session – select two partners and compare information. Report on your findings. Then, create a correlation bridging mathematical compounds with the construction of the great pyramids of Egypt.</p> | <p>NYS Standards for Math, Science and Technology: Standard 3 – Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry. NETS for Teachers: NETS II - Planning and Designing Learning Environments and Experiences. NETS V - Productivity and Professional Practice Goal 1 – To improve subject matter knowledge and promote the use of research-based instructional practices among mathematics teachers serving students in grades 3-10 in the targeted 27 high needs schools. Objective 1.2: To provide online tools and professional development opportunities for Lead teachers and mathematics coaches that will strengthen their content knowledge and increase their ability to collaborate Objective 1.3 Improve and expand teacher training on the effective integration of technology into the Mathematics curricula and</p> | <p>90 minutes</p> <p>180 minutes</p> |
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| <p>Understanding the potential to meet each child at his or her starting point and ensure substantial growth. Participants will be able to:</p> <p>Recognize instructional strategies that emphasize learning in the content area and that meet the varied learning styles of students</p> | <p>Solving Post to assignments due.</p> | <p>Group share and discussion</p> <p>Polyhedron: “Many Faces” a solid bounded by plane polygons.</p> <ul style="list-style-type: none"> • A compound of polyhedrons is a solid model that is made up of more than one polyhedron • New polyhedrons can be formed by truncating or stellating <p>Leonard Euler (1707-1783), A Swiss mathematician, proved the relationship between the number of vertices, faces and edges of polyhedra known as Euler’s Formula</p> <p>Can you discover this formula from the data in the table above?</p> <p>Group share and discussion</p> | <p>instruction</p> <p>NYS Standards for Math, Science and Technology: Standard 3 – Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry.</p> <p>Goal 2. To improve student academic achievement in mathematics in high-needs schools within Districts 9 and 10</p> <p>Objective 2.1 Students will increase their aptitude for Mathematical Reasoning and Model/Multiple Representations demonstrated by an increase of 5 percentage points on local and state mathematics assessments.</p> | <p>90 minutes</p> <p>240 minutes</p> <p>120 minutes</p> |
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Constructing classroom best practices that are responsive to student learning in the content area and that meet the needs of struggling and advanced learners.

Construct a unit plan, which supports content area objectives and promotes student success.

Unit Plan

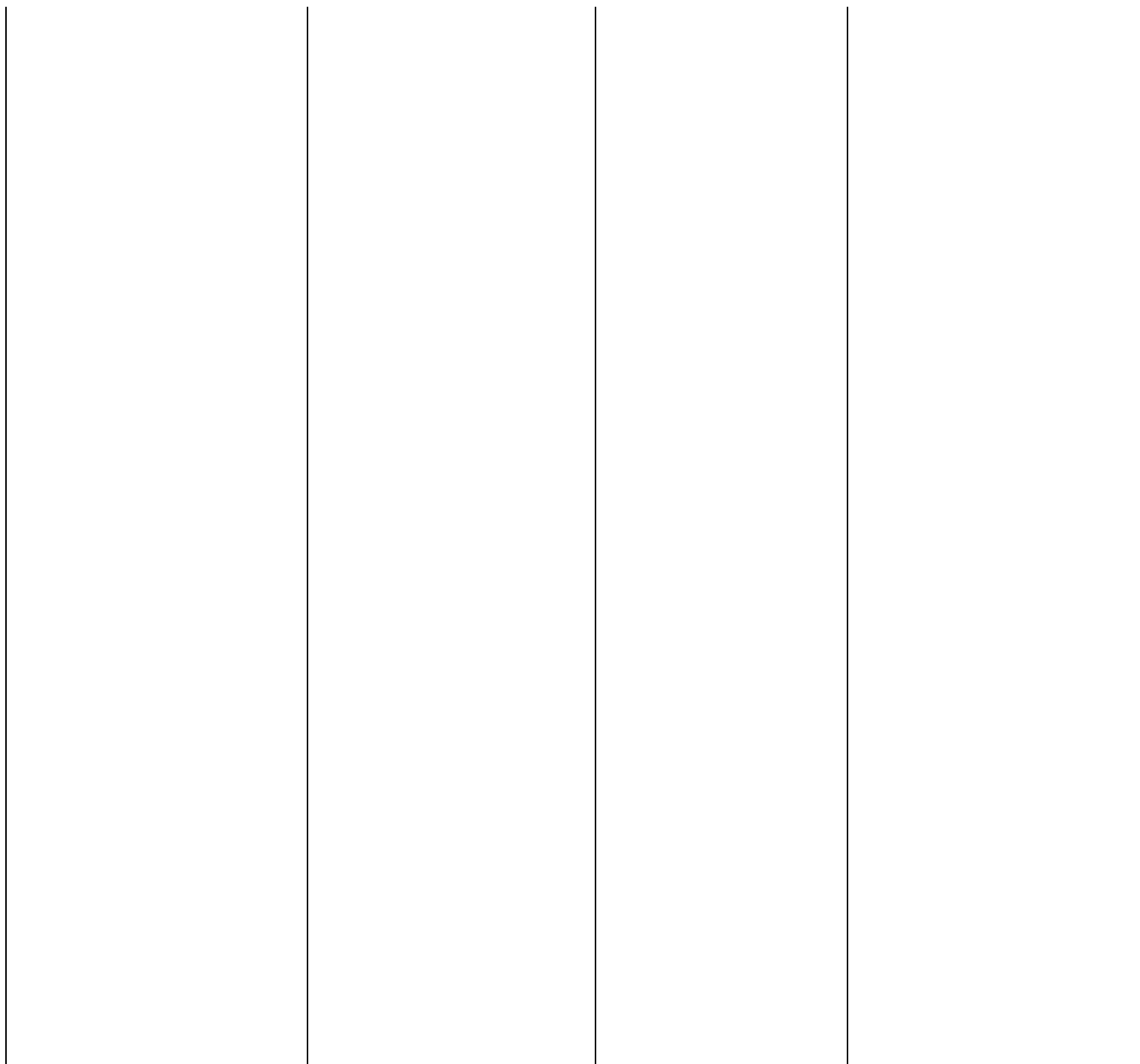
Final - Construct a content area unit plan, integrating the use of media technology as a resource in the learning process

**NETS for Teachers:
NETS II - Planning and Designing Learning Environments and Experiences.
NETS V - Productivity and Professional Practice
Goal 1 – To improve subject matter knowledge and promote the use of research-based instructional practices among mathematics teachers serving students in grades 3-10 in the targeted 27 high needs schools.
Objective 1.2: To provide online tools and professional development opportunities for Lead teachers and mathematics coaches that will strengthen their content knowledge and increase their ability to collaborate
Objective 1.3 Improve and expand teacher training on the effective integration of technology into the Mathematics curricula and instruction
Goal 2. To improve student academic achievement in mathematics in high-needs schools within Districts 9 and 10
Objective 2.1 Students will increase their aptitude for Mathematical Reasoning and Model/Multiple Representations demonstrated by an increase of 5 percentage points on local and state mathematics assessments.**

240 minutes

Evaluation

30 minutes



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