

Road Map	Web Adventures	Assignments	Assesment	Standards	Seat Time
Week 1					
Essential Questions	What are the expectations of the student as well as the instructor during this course?				
Outcome/ Goal	Students will demonstrate their ability to communicate with one another and the instructor. Students will indicate they have read the requirements of the course.				
Objective 1	The students and the instructor will introduce themselves to each other by posting a breif self decription.	Assignment: The self decription should not exceed 50 words and should include your teaching experience.	Participants will write a 50 word essay decribing their teacing experience and their reasons for taking the course. 15 min		15 min
Objective 2	Students will indicate they have read and agree to each individually listed policy or procedure that will be part of the course.	Assignment: Read the Class Policies and indicate that you understand them and agree . Save all assignments on your hard drive to prevent loss of your work in the event of miscommunication. All assignments must include your name, subject area and grade level. There are 7 weeks to complete the course, therefore you can expect at least 2 assignments weekly. The response time for assignments should not exceed two days. Send an alert and resend the assignment if you have not received a response at the end of two days. All assignments must be submitted by the due date as indicated in the Class Policies.	Participants will confirm that they have read the policies and procedures and are in agreement. 15 min		15 min
			30 min		sub total 30min
				3%	
Week 2					
Essential Questions	What on line opportunities are available in my specific scientific area and grade level?				
Outcome/ Goal	Students will explore online sites related to their science area and grade level.				

Objective 1	Students will evaluate their selected sites as to their personal development value. Students must include their scientific area and grade level in the response.	<p>Assignment: Browse through the list of sites provided. You may select any 5 from this list or provide others of your own choosing. Site Listing:</p> <p>www.nationalgeographic.com www.science.gov www.nbii.gov www.teachersdomain.org www.bioedonline.org www.thinkfinity.com www.videos.howstuffworks.com www.nos.noaa.gov www.eere.energy.gov www.education.jlab.org www.nasa.gov/centers/aimes/education www.particleadventure.org www.teachersdomain.org www.pbs.org/teacherline www.nasm.si.edu www.astrosociety.org www.discovermagazine.com www.compadre.org www.pbskids.org www.education.com www.free.ed.gov www.nrc.gov</p> <p>Comment on at least one of your fellow participants.</p>	Participants will explain why they have selected their 5 online sites and why these particular sites are of value to their students. Each participant will comment on at least one other participants choices. 1/2 Hr	<p>MST 2 Students will access, generate, process, and transfer information using appropriate technologies</p> <p>Key Idea 1 Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning.</p> <p>PI-1 from a wide range of sources such as research data bases, foundations, organizations, national libraries, and electronic communication networks, including the Internet. 4-utilize electronic networks to share information.</p>	30 min
Objective 2	Students will identify the agencies or foundations involved in the preparation of each site selected	Record the agency responsible for each site	The agency/foundation responsible for presentation of each site, must be identified (5) 10 min	<p>MST 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.</p> <p>Key Idea2. Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity. PI: refine their research ideas through library investigations, including electronic information retrieval and reviews of the literature, and through peer feedback obtained from review and discussion.</p>	10 min

Objective 3	The student will explain how the information/activity in each site can be incorporated in the classroom of their specific scientific area and grade level.		Participants will identify the area of the curriculum that these sites address and will describe an classroom activity that can incorporate this information. A list of materials must also be provided along with an estimate of time needed for completion. Student/class evaluation or summary must be included. The participants will comment on at least one fellow participants response. 50 min	inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions. Key Idea2. Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity. PI Devise ways of making observationto test proposed explanations MST 5: Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs Key Idea 2. Technological tools, materials, and other resources should be selected on the basis of safety, cost, availability, appropriateness, and environmental impact; technological processes change energy, information, and material resources into more useful forms. PI • explore, use, and process a variety of materials and energy sources to design and construct things. - use appropriate graphic and electronic tools and techniques to process information.	50 min
			1 1/2 hrs.		sub total 1 1/2
Week 3				10%	
Essential Questions	How does NSTA provide teachers with valuable materials for the science class.				
Outcome/ Goal	The students will explore resources and agencies made available through the NSTA site.	Click on the following link. www.nsta.org It is useful to enter a user ID and password to facilitate access to this site more quickly. Select the major categories listed below and browse. Professional Development, Conferences and Institutes, Publications and Products, Get Involved			
Objective 1	The student will write about their general impressions of each of the four major categories found in NSTA and how the information meets or does not meet personal motivations for taking the course.	Write about your general impressions of each category in this website (approximately 150 words each). Comment on at least one of your fellow participants.	The participants will write impressions for each of the 4 categories listed (150 words each). Within each they should explain how these categories provide or not provide materials to meet their needs as a science teacher. Each participant will comment on one other fellow participant 40 min		40 min

Objective 2	The student will identify 2 current areas of scientific controversy from a provided list or select their own. Students will then present a review as to how these issues are managed presently in the scientific literature.	<p>Assignment: Select two areas from this list or your own choice</p> <ul style="list-style-type: none"> · Public Health –Cancer, Heart Disease, Obesity, Diabetes in America · Genetic Engineering and Cloning - Watson and Crick model of DNA · Space Travel – gravitational effects on the human body · Climate Change – means of measurement · Energy and Energy Conservation · Evolution – Darwin, Mendel · Ecology and the Environment <p>In the discussion of each (approximately 150 words) be sure to include the dated scientific publication and your impressions as to its validity in today's world. Your submission will be under a Q&A forum format. Therefore you will not be able to view your classmates work until you have submitted your own. Comment on at least one of your fellow participants.</p>	The participants will explain why they selected the two areas of scientific controversy and include all scientific literature they researched. Within the two discussions (150 words each) it is essential they explain the importance of these issues in the modern world and determine how the present day media handles this information. Each participant will comment on one other fellow participant 1 1/2 Hr	<p>MST 7 Standard 7: Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions. Key Idea 2 Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics, science, and technology; and presenting results. PI Students participate in an extended, culminating mathematics, science, and technology project. The project would require students to:</p> <ul style="list-style-type: none"> • work effectively • gather and process information • generate and analyze ideas • observe common themes • realize ideas • present results 	90 min
Objective 3	All submissions must include the dated publication and author.	Assignment: Indicate how each affects the class room student.	All submissions must include the date and author of the scientific publication cited. The participant will explain how each effects the classroom student. 20 min	<p>"MST 2 Students will access, generate, process, and transfer information using appropriate technologies</p> <p>Key Idea 1 Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning.</p> <p>PI-1 from a wide range of sources such as research data bases, foundations, organizations, national libraries, and electronic communication networks, including the Internet. 4-utilize electronic networks to share information.</p> <p>"</p>	20 min
			2 1/2 hrs		sub total 2 1/2
				17%	
Week 4					
Essential Questions	How do the Science Objects in NSTA provide teachers with valuable materials for the science class.				
Outcome/ Goal	Students will evaluate and analyze one Science Object specific to their needs, within the NSTA site.				

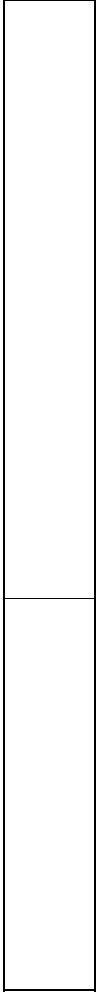
Objective 1	Students will select any Science Object and write an evaluation.	Assignment: Click on the first link under Professional Development ---the NSTA learning Center or http://learningcenter.nsta.org/products/science_objects.aspx . The first time you enter Science Objects, it is essential you access the "system check" to insure your computer has all the plug-ins necessary. Select any Science Object and describe the contents of the object you selected. Explain why this object is of value to your students. On the left hand column select the filter for your Subject Area and Grade Level. Be sure to also select the FREE pricing filter	Each participant will describe the contents of the science object. Within the description the participant will explain the value of the object indicating how it can be incorporated in the classroom and how it can enhance the curriculum. Science objects can take more than an hour and 1/2 to complete. 2hrs		2 hrs.
Objective 2	Students will explain how this information/activity can be utilized in the classroom and be incorporated in the curriculum.	Assignment: Develop a lesson plan for your particular science area and grade level for each of the science objects. Include activities that are in keeping with NYS standards 1&4 for Science. It is most likely that you have identified other participants that share either your subject area or grade level. Contact two or three and arrange a means of interaction and provide a group name. This group need not be a permanent one. Members can choose to enter another group or remain. Discuss among members of the group how you can improve your lesson plans and finally present them to the rest of the participants.	All Lesson Plan Posts Include: An abstract that includes the science area and grade level: Objectives: Background or History related to the lesson: Lesson Activity- description of procedure in steps and time requirement- QUESTIONS : lab partners? online resources? method of recording results? summary or group report? Class Discussion: charts, posters, diagrams, maps, graphs, quiz. The participants will post a name and a list of the members of their group. Lesson plans will be submitted separately. Group discussions will be posted 1Hr 25 min	"MST 7 Standard 7: Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions. Key Idea 2 Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics, science, and technology; and presenting results. PI Students participate in an extended, culminating mathematics, science, and technology project. The project would require students to: <ul style="list-style-type: none"> • work effectively • gather and process information • generate and analyze ideas • observe common themes • realize ideas • present results" 	1 hr 25 min
Objective 3	The student will record the agency or foundation sited and place their selection in the NSTA library.	Assignment: Explore the NSTA library. This free service allows you to store information to be accessed at any time. It will act as a personal bibliography at your finger tips. Place all future selections in the NSTA library. For example Science Objects take 2 hours to complete, however if they are stored in your library they can be accessed at your convenience.	Record agency/foundation Post Library addition 5 min	"MST 2 Students will access, generate, process, and transfer information using appropriate technologies Key Idea 1 Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning. PI-1 from a wide range of sources such as research data bases, foundations, organizations, national libraries, and electronic communication networks, including the Internet. 4-utilize electronic networks to share information.	5 min
Objective 4			3 1/2 Hrs	23%	sub total 3 1/2 hrs.
Week 5					

Essential Questions	How do the Archived Web Seminars in NYSTA provide teachers with valuable materials for the science class.				
Outcome/ Goal	Students will evaluate at least one Archived Web Seminars specific to their needs, within the NSTA site.				
Objective 1	Students will select any Archived Web Seminars and write an evaluation. Students will Include the date it was originally presented and the name/s of the presentors.	Assignment: (HINT) you must download the Elluminate Application to see these seminars. All seminars are 90 minutes in length, however since they are archived they can be viewed at your convenience. Any visual aids seen in these seminars can be downloaded using the PDF version. If in the future if you decide that you would like to participate in a real-time seminar just take note of the announcements in this section. It is not necessary for you to travel to the location of the seminar since it is accessible online. There is no need for a microphone in the archived web seminars. You can only be an observer, not a participant. Select any Archived Seminar and describe the content. Explain why this seminar is of value to your students.	Each participant will describe the contents of the archived seminar. Within the decription the participant will explain the value of the seminar indicating how it can be incorporated in the classroom and how it can enhance the curriculum. The date and names of the presentors are necessary. Seminars take 90 min to complete. 2hrs		
Objective 2	Students will explain how this information/activity can be utilized in the classroom and be incorporated in the curriculum. Student will develop a lesson plan reflecting NYS standards.	Assignment: Develop a lesson plan for your particular science area and grade level for each of the archived web seminars. Include activities that are in keeping with NYS standards 1&4 for Science. Discuss among members of the group how you can improve your lesson plans and finally present them to the rest of the participants.	All Lesson Plan Posts Include: An abstract that includes the science area and grade level: Objectives: Background or History related to the lesson: Lesson Activity- decription of procedure in steps and time requirement- QUESTIONS : lab partners? online resources? method of recording results? summary or group report? Class Discussion: charts, posters, diagrams, maps, graphs, quiz. The participants will post a name and a list of the members of their group. Lesson plans will be submitted separately. Group dicussions will be posted 1Hr 25 min	MST 7 Standard 7: Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions. Key Idea 2. Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics, science, and technology; and presenting results. PI Students participate in an extended, culminating mathematics, science, and technology project. The project would require students to: <ul style="list-style-type: none"> • work effectively • gather and process information • generate and analyze ideas • observe common themes • realize ideas • present results 	1 hr. 25 min.

Objective 3	The student must record the agency or foundation responsible and place their selection in the NSTA library .	Add to your personal bibliography	Record agency/foundation Post Library addition 5 min	MST 2 Students will access, generate, process, and transfer information using appropriate technologies Key Idea 1 Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning. PI-1 from a wide range of sources such as research data bases, foundations, organizations, national libraries, and electronic communication networks, including the Internet. 4-utilize electronic networks to share information.	5 min
Objective 4			3 1/2 hrs	22%	sub total 3 1/2 hrs.
Week 6					
Essential Questions	How do the journal articles in NYSTA provide teachers with valuable materials for the science class.				
Outcome/ Goal	Students will evaluate three Journal Articles specific to their needs, within the NSTA site.				
Objective 1	Students will select any three Journal Articles and write an evaluation for each.	Assignment: Select any three Journal Articles and describe the content of each object you selected. Explain why these articles are of value to your students. Before selecting be sure to filter accordingly. (description --100 words each)	Each participant will describe the contents of the three journals. Within the description the participant will explain the value of the journals indicating how it can be incorporated in the classroom and how it can enhance the curriculum. . 45 min		45 min
Objective 2	Students will explain how this information can be utilized in the classroom and be incorporated in the curriculum. A	Assignment: Develop a lesson plan for your particular science area and grade level for each of the journal articles. Include activities that are in keeping with NYS standards 1&4 for Science. Discuss among members of the group how you can improve your lesson plans and finally present them to the rest of the participants.	All Lesson Plan Posts Include: An abstract that includes the science area and grade level: Objectives: Background or History related to the lesson: Lesson Activity- description of procedure in steps and time requirement- QUESTIONS : lab partners? online resources? method of recording results? summary or group report? Class Discussion: charts, posters, diagrams, maps, graphs, quiz. The participants will post a name and a list of the members of their group. Lesson plans will be submitted separately. Group discussions will be posted 1Hr 10 min	MST 7 Standard 7: Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions. Key Idea 2 Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics, science, and technology; and presenting results. PI Students participate in an extended, culminating mathematics, science, and technology project. The project would require students to: • work effectively • gather and process information • generate and analyze ideas • observe common themes • realize ideas • present results	1hr 10 min

Objective 3	The student must record the agency or foundation responsible and place their selection in the NSTA library .	Add to your personal bibliography	Record agency/foundation Post Library addition 5 min	"MST 2 Students will access, generate, process, and transfer information using appropriate technologies Key Idea 1 Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning. PI-1 from a wide range of sources such as research data bases, foundations, organizations, national libraries, and electronic communication networks, including the Internet. 4-utilize electronic networks to share information. "	5 min
			2 Hrs		
			15%		sub total 2 hrs.
Week 7					
Essential Questions	How do the book chapters in NYSTA provide teachers with valuable materials for the science class.				
Outcome/ Goal	Students will evaluate three Book Chapters specific to their needs, within the NSTA site.				
Objective 1	Students will select any two Book Chapters and write an evaluation for each. A	Assignment: Select any two Book Chapters and describe the content of each chapter you selected. Explain why these chapters are of value to your students. Before selecting be sure to filter accordingly.	Each participant will describe the contents of the two book chapters. Within the description the participant will explain the value of the book chapters indicating how they can be incorporated in the classroom and how it can enhance the curriculum. . 25 min		25 min
Objective 2	Students will explain how this information/activity can be utilized in the classroom and be incorporated in the curriculum.	Assignment: Develop a lesson plan for your particular science area and grade level for one of the book chapters. Include activities that are in keeping with NYS standards 1&4 for Science. Discuss among members of the group how you can improve your lesson plans and finally present them to the rest of the participants.	All Lesson Plan Posts Include: An abstract that includes the science area and grade level: Objectives: Background or History related to the lesson: Lesson Activity- description of procedure in steps and time requirement- QUESTIONS : lab partners? online resources? method of recording results? summary or group report? Class Discussion: charts, posters, diagrams, maps, graphs, quiz. The participants will post a name and a list of the members of their group. Lesson plans will be submitted separately. Group discussions will be posted 45 min	MST 7 Standard 7: Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions. Key Idea 2 Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics, science, and technology; and presenting results. PI Students participate in an extended, culminating mathematics, science, and technology project. The project would require students to: • work effectively • gather and process information • generate and analyze ideas • observe common themes • realize ideas • present results	45 min

Objective 3	The student must record the agency or foundation responsible and place their selection in the NSTA library .	Add to your personal bibliography	Record agency/foundation Post Library addition 5 min	"MST 2 Students will access, generate, process, and transfer information using appropriate technologies Key Idea 1 Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning. PI-1 from a wide range of sources such as research data bases, foundations, organizations, national libraries, and electronic communication networks, including the Internet. 4-utilize electronic networks to share information. "	5 min.
COURSE EVALUATION	Students will evaluate and critique the course according to NYIT procedure..		15 min		15 min
			1 1/2 hrs		sub total 1 1/2 hrs
				10%	
			Total % of Grade 100%		7 Week Total Course Time 15 Hrs



hrs

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