

Using Wildlife Imagery in Designing Lesson Plans that Promote Higher Order Thinking

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Essential Question: How can I use the materials available in ARKive to help my students create and explore questions that address environmental issues regarding threatened and endangered species?

Week 1

Objectives	Assessment of the Objective	Formative Assessment	Activities	NYS Performance Indicators	Seat Time
Objective 1					
Students will be able to navigate the online course module and access forums and attached course documents.	Students will post a message saying that they have opened and read all of the course documents. Students will post their introductions.	Students will post a comment to at least one other student's introduction.	<u>Course Documents</u> : Read all Course Documents. <u>Introduce Yourself to the Class</u> : Write a paragraph introducing yourself and post it in appropriate forum. Add a comment to at least one other student's introduction.	NA	30 min
Objective 2					
Students will be able to determine that they have the required software and plug-ins installed on their computers.	Students will post a message saying that they have read the technical requirements and have installed the required software and plug-ins.		<u>Technical Requirements</u> : Read the Technical Requirements listed in the Syllabus. Make sure to have all required software and plug-ins installed.	NA	45 min
Objective 3					
Students will be able to navigate and access information and digital media from the digital library.			<u>Let's Explore</u> : Explore the ARKive website. Follow the instructions in the assignment to become comfortable in navigating the site and accessing digital media.	NA	45 min

Week 2

Objectives	Assessment of the Objective	Formative Assessment	Activities	NYS Performance Indicators	Seat Time
Objective 1					
Students will be able to recognize relationships between different species.	Students will create an ARKive scrapbook listing at least 5 species with captions. Each student will create a scrapbook name, description and theme. Students will share their scrapbooks with members of their assigned groups through email.	Students will post responses to all students in their assigned groups commenting on the scrapbooks.	<u>Scrapbook Activity</u> : Search ARKive for species related by a theme. Go to My ARKive and view exemplar scrapbooks (Featured ARKive team scrapbooks). Create a scrapbook of at least 5 species. Create a scrapbook name, description and theme. Share your scrapbook with the other members of your assigned group (email). Post responses to all students in your assigned group commenting on the scrapbooks.	MST Standard 1 Key Idea 1 Performance Indicators 1, 2; Standard 2 Key Idea 1 PI 2, 5 - Key Idea 3 PI 2; Standard 4 Key Idea 1 PI 1 - Key Idea 3 PI 2 - Key Idea 5 PI 1 - Key Idea 6 PI 1; Standard 5 Key Idea 3 PI 2; Standard 6 Key Idea 1 PI 2 - Key Idea 3 PI 1; ELA Standard 1 Key Idea 1 PI 1, 2, 3, 5, 6; Standard 3 Key Idea 1 PI 3; Standard 4 Key Idea 1 PI 4; Key Idea 2 PI 1, 2.	60 min
Objective 2					
Students will be able to access and reflect on current articles.	Students will post a reflection on a current ARKive article.	Students will post a response to at least one other student.	<u>ARKive News Article</u> : Search ARKive for and read a current news article. Post a reflection about the article. Post a comment to at least one other student about the same article.	MST Standard 1 Key Idea 1 PI 1, 2; Standard 2 Key Idea 3 PI 2; Standard 4 Key Idea 6 PI 1 - Key Idea 7 PI 1; Standard 6 Key Idea 1 PI 2; ELA Standard 1 Key Idea 1 PI 1, 5, 6 - Key Idea 2 PI 1, 2, 4, 5, 7; Standard 3 Key Idea 1 PI 3; Standard 4 Key Idea 1 PI 4 - Key Idea 2 PI 1, 2.	45 min
Objective 3					
Students will be able to evaluate and choose between different methods of receiving regularly updated content.	Students will post a message comparing the different methods of receiving regularly updated content. Students will explain why they chose one particular method.	Students will post a response to at least one other student commenting on the comparison.	<u>Subscriptions</u> : Click on ARKive News > ARKive RSS. Read the different methods of receiving regularly updated content. Sign up for one or more subscriptions of your choice. Post a reflection comparing the methods, what method you've chosen and why. Post a response to at least one other student commenting on the comparison.	MST Standard 2 key Idea 1 PI 3 - Key Idea 3 PI 2; Standard 5 Key Idea 4 PI 1; Standard 6 Key Idea 6 PI 1; ELA Standard 1 Key Idea 1 PI 2, 5 - Key Idea 2 PI 1, 3, 5, 7; Standard 3 Key Idea 2 PI 2; Standard 4 Key Idea 1 PI 4.	30 min

Week 3

Objectives	Assessment of the Objective	Formative Assessment	Activities	NYS Performance Indicators	Seat Time
Objective 1					
Students will be able to examine and evaluate curriculum modules.	Each student will post a summary of one curriculum module. Each student will explain how he/she will use it to supplement the curriculum.	Students will post a response to at least one other student commenting on the supplementation or giving helpful suggestions.	<u>ARKive Education Resources and Response</u> : Access the ARKive education site. Choose one curriculum module and download it. Post a paragraph on how you will use the module to supplement your curriculum. Post a response to at least one other student commenting on the supplementation or giving helpful suggestions.	MST Standard 1 Key Idea 1 PI 1, 2; Standard 2 Key Idea 1 PI 3; Standard 4 Key Idea 1 PI 1e, 1i - Key Idea 2 PI 1 - Key Idea 3 PI 1 - Key Idea 4 PI 1 - Key Idea 5 PI 2 - Key Idea 6 PI 1e, 1i, 1c, 2c, 3c - Key Idea 7 PI 1e, 2i, 2c; Standard 5 Key Idea 3 PI 2; Standard 6 Key Idea 1 PI 2; ELA Standard 1 Key Idea 1 PI 1, 5, 6. (Note: e = elementary, i = intermediate, c = commencement. The ARKive Education curriculum modules available cover all Standard 4 Key Ideas.)	30 min
Objective 2					
Students will be able to access a website's Terms of Use.	Each student will post a message indicating that they have read the Terms of Use and understand them.		<u>ARKive Terms of Use</u> : Read the ARKive Terms of Use. Post a message here indicating that you have read the Terms of Use and understand them.	NETS for Students : Standard 5 Key Idea 1 - advocate and practice safe, legal, and responsible use of information and technology.	15 min
Objective 3					
Students will be able to incorporate and organize digital images and information into a document for presentation.	Each student will attach the completed project to a post.		<u>PowerPoint Project</u> : Create your own PowerPoint presentation that illustrates a curriculum topic using ARKive data and digital media. Use at least 3 photos and 1 video. Include a references page that properly cites your sources of information and media. (See attached citation links.)	MST Standard 2 Key Idea 1 PI 1, 2, 5 - Key Idea 3 PI 1; Standard 4 Key Idea 1 PI 1e, 1i - Key Idea 2 PI 1 - Key Idea 3 PI 1 - Key Idea 4 PI 1 - Key Idea 5 PI 2 - Key idea 6 PI 1e, 1i, 1c, 2c, 3c - Key idea 7 PI 1e, 2i, 2c, 3c; ELA Standard 1 Key 1 PI 1, 3, 5, 6 - Key Idea 2 PI 1e, 3i, 4i, 7e; Standard 3 Key Idea PI 3.	75 min
Objective 4					
Students will be able to apply the rules of appropriate use of copyrighted materials.	Students will include in their projects a references page properly citing the resources used.		See Activities: PowerPoint Project.	See NYS Performance Indicators: PowerPoint Project.	

Objective 5					
Students will be able to self-assess their work.	Each student will post a summary of the project and explain how it will supplement the curriculum.	Students will use the PowerPoint Rubric to improve their work.	<u>PowerPoint Summary and Attachment</u> : Review the PowerPoint Rubric and use it to guide you in improving your presentation. Post a summary of the project and explain how it will supplement the curriculum. Attach your presentation file to the summary.	ELA Standard 1 Key Idea 2 PI 1, 7.	30 min

Week 4

Objectives	Assessment of the Objective	Formative Assessment	Activities	NYS Performance Indicators	Seat Time
Objective 1					
Students will be able to assess other students' work and offer constructive criticism.	Each student will post a response to each group member providing constructive criticism.		<u>PowerPoint Feedback</u> : Review each group member's PowerPoint project. Post a response to each group member in your group forum. In your post provide constructive criticism that can be used to inform project revision.	MST Standard 2 Key Idea 3 PI 2; Standard 7 Key Idea 2 PI 1, 5; ELA Standard 3 Key Idea 1 PI 4.	30 min
Objective 2					
Students will be able to use assessment and feedback to inform document revision.	Each student will attach the revised project to a post. Each student will discuss how and why he/she revised the project.		<u>PowerPoint Revision</u> : Look over the comments given to your PowerPoint presentation in the PowerPoint Feedback Activity. Revise your presentation and attach it to a post in this forum. In your post discuss how and why you revised your presentation.	MST Standard 7 Key Idea 2 PI 1, 5; ELA Standard 1 Key Idea 2 PI 5; Standard 3 Key Idea 1 PI 4.	45 min
Objective 3					
Students will be able to navigate Google Ocean.	Students will post a message detailing their journey and the species they encountered.	Students will post a response to at least one other student commenting on the journey.	<u>Google Ocean</u> : Open Google Ocean. Follow the attached directions and explore the undersea world. Read and follow links to learn about endangered marine species. Post a message detailing your journey and the species you encountered. Post a response to at least one other student commenting on the journey.	MST Standard 6 Key Idea 1 PI 2 - Key Idea 2 PI 2, 3; ELA Standard 1 Key Idea 1 PI 2, 5 - Key Idea 2 PI 2, 4.	60 min

Week 5

Objectives	Assessment of the Objective	Formative Assessment	Activities	NYS Performance Indicators	Seat Time
Objective 1					
Students will be able to collaborate using a variety of Moodle tools.	Students will participate in an online chat and practice proper etiquette.	Students will brainstorm and share ideas.	<u>Group Chat</u> : Read the Questioning Toolkit. Participate in an online chat (within your assigned group) to brainstorm and share ideas for essential questions.	MST Standard 2 Key Idea 1 PI 2; Standard 7 Key Idea 2 PI 1, 3, 4; ELA Standard 4 Key Idea 1 PI 1, 23, 2i, 3.	45 min
Objective 2					
Students will be able to follow directions.	Student will indicate that they have read the Final Project Overview and understand what is required.		<u>Final Project Overview</u> : Read the Final Project Overview and review the steps in constructing your final project. Indicate that you have done so and understand what is required to complete the project.		15 min
Objective 3					
Students will be able to discuss the development of higher order thinking skills.	Students will post a reflection on the HOTS reading assignment.	Students will post a response to at least one other student discussing HOTS.	<u>Higher Order Thinking Skills (HOTS)</u> : Read the linked HOTS article. Find one other article concerning HOTS. Post your reflection on both articles (remember to properly cite the second article). Post a response to at least one other student discussing HOTS.	MST Standard 2 Key Idea 3 PI 2; ELA Standard 1 Key Idea 1 PI 1, 5, 6 - Key Idea 2 PI 1, 2, 4, 5, 7; Standard 3 Key Idea 1 PI 3; Standard 4 Key Idea 1 PI 4 - Key Idea 2 PI 2.	45 min
Objective 4					
Students will be able to formulate essential questions based on website content.	Each student will post a message listing the essential question for his/her lesson plan and explain how it meets the Essential Question criteria.	Students will post a response to at least one other student commenting on the essential question and how it meets the criteria.	<u>Essential Question Forum</u> : Formulate the essential question that will drive your lesson plan. Post a message listing the essential question for your lesson plan and explain how it meets the Essential Question criteria. Post a response to at least one other student commenting on the essential question.	MST Standard 1 Key Idea 1 PI 1, 2, 4; Standard 7 Key Idea 2 PI 5 ELA Standard 1 Key Idea 2 PI 2, 4; Standard 3 Key Idea 1 PI 3, 4.	30 min

Week 6

Objectives	Assessment of the Objective	Formative Assessment	Activities	NYS Performance Indicators	Seat Time
Objective 1					
Students will be able to incorporate higher order thinking components in their lesson plans.	Students will post a message listing the HOTS components in their lesson plans.	Students will post a response to at least one other student commenting on his/her HOTS components and activities.	<u>HOTS Components</u> : Post a message listing the Higher Order Thinking Skills components in your lesson plan. Give examples of activities in your lesson plan that reflect these components. Post a response to at least one other student commenting on the HOTS components and activities in his/her lesson plan.	MST Standard 2 Key Idea 3 PI 2; ELA Standard 1 Key Idea 2 PI 1, 2, 7; Standard 3 Key Idea 1 PI 3, 4; Standard 4 Key Idea 1 PI 4 - Key Idea 2 PI 2.	30 min
Objective 2					
Students will be able to align their lesson plans to appropriate state standards.	Students will post a message listing the state standards met in their lesson plans.	Students will post a response to at least one other student commenting on his/her state standards alignment.	<u>New York State Learning Standards</u> : Post a message listing the state standards met in your lesson plan. Post a response to at least one other student commenting on how well he/she aligned the lesson plan to the state standards.	MST Standard 2 Key Idea 3 PI 2; ELA Standard 1 Key Idea 2 PI 1, 2, 7; Standard 3 Key Idea 1 PI 3, 4; Standard 4 Key Idea 1 PI 4 - Key Idea 2 PI 2.	30 min
Objective 3					
Students will be able to self-assess their work.	Each student will attach the completed lesson plan to a post and reflect on how well they met the requirements.		<u>Activity 1 - Post your Lesson Plan</u> : Attach your completed lesson plan to a post in this forum. In this post reflect on how well you met the requirements for this project.	MST Standard 7 Key Idea 2 PI 5; ELA Standard 3 Key Idea 1 PI 4.	30 min
Objective 4					
Students will be able to assess other students' work and offer constructive feedback.	Students will post responses to at least two students providing constructive criticism.		<u>Activity 2 - Lesson Plan Feedback</u> : Read each student's lesson plan. Choose at least two lesson plans and post a response to each providing constructive criticism. As a class make sure that every student has received at least two responses.	MST Standard 7 Key Idea 2 PI 5; ELA Standard 3 Key Idea 1 PI 4.	45 min

Week 7

Objectives	Assessment of the Objective	Formative Assessment	Activities	NYS Performance Indicators	Seat Time
Objective 1					
Students will be able to use assessment and feedback to improve and finalize their lesson plans	Each student will attach the revised lesson plan to a post. Each student will discuss how and why he/she revised the lesson plan		<u>Lesson Plan Revision - Final Version:</u> Read the response given to you by other students in Lesson Plan Feedback. Use the constructive criticism to inform your document revision. Attach the revised lesson plan to a post in this forum. In this post discuss how and why you revised your lesson plan.	MST Standard 7 Key Idea 2 PI 1, 5; ELA Standard 1 Key Idea 2 PI 5; Standard 3 Key Idea 1 PI 4	60 min
Objective 2					
Students will be able to self-assess their work	Each student will write a self-reflection on the Essential Question for this course	Each student will self-reflect	<u>Self-Reflection:</u> Write a self-reflection based on the essential question for this course and your experience as part of an active learning community.	MST Standard 7 Key Idea 2 PI 5; ELA Standard 1 Key Idea 2 PI 2, 7; Standard 3 Key Idea 1 PI 4	45 min
Last Activity			<u>Course Evaluation Form:</u> Please fill out the Course Evaluation Form.		15 min

Week	Hours/Minutes
1	2 h
2	2 h 15 m
3	2 h
4	2 h 15 m
5	2 h 15 m
6	2 h 15 m
7	2 h
Total Hours	15 hours