

WildernessClassroom.com

Greetings Fellow Explorers,

This introductory guide is designed to help you navigate The Wilderness Classroom website, generate student interest, and demonstrate how to implement activities from the curriculum guide into your classroom.

Our online learning adventures are designed to empower students through knowledge, inquiry, discovery, and adventure.

Our goal is to help students identify relationships between living things across the globe, while developing a strong conservation ethic. We feel that showing students the natural relationships between plants, animals, and people in a given environment is the most effective way to do so. Once students begin to understand these complex relationships, they can insert themselves as active members in the continuing cycle of life. Students can then recognize that the choices they make, the food they eat, the products they buy, and the resources they consume all impact the environment on a global level.

This guide is designed to show you how to make the Trans-Amazon Expedition come alive in your classroom, regardless of your students' level, your technical abilities, and your time commitment. We realize it's a challenge to break from the daily classroom routine and try something new. However, we think that when properly applied, learning adventures are as rewarding for you as they are for your students.

Keep Exploring!

Dave Freeman



Program Overview

The Wilderness Classroom helps students explore the world around them, as they ask questions and solve problems. Online learning adventures encourage a deeper sense of cultural and environmental awareness among students and help students draw connections between their daily lives and the lives of people across the globe. Throughout the process students are using and improving important skills like: reading, vocabulary, communication, critical thinking, problem solving, collecting data, and graphing.

During The Trans-Amazon Expedition your students' job is to help our team raise awareness about the important role the world's forests play in controlling climate change. The Trans-Amazon Expedition's goal is to empower people to make changes in their lives, which will protect the world's remaining forests and combat global climate change.

During the adventure, our team will highlight the interdependency of all life in South America's Amazon Basin. As we do so, students will explore how sustainable management of resources and habitat helps species survive and grow. Students will also gain a better understanding of the food, water, and other resources they use, and how their actions can have positive and negative effects on the world around them.

First Stage: March - May, 2007
Second Stage: March - May, 2008
Third Stage: October - November, 2008

The Trans-Amazon Expedition grew out of a student survey. We simply asked students and teachers who participated in previous adventures where they would like to see The Wilderness Classroom Adventure Team explore next. The overwhelming response was to continue to investigate the earth's tropical rainforests.

During the adventure, the Expedition Team will be in direct contact with your classroom through online polls, email correspondence, and a monitored chat room. Students will make decisions that directly impact the adventure, while resolving the ecological, ethical, and personal dilemmas the team faces. The Wilderness Classroom's multi-disciplinary curriculum guide is aligned to Illinois State Standards and can be used in its entirety or as a supplement to Language Arts, Science, Math, and Social Science activities.



The Amazon is the largest watershed on earth by volume, size, and number of tributaries. The Amazon watershed drains a territory of nearly 3 million square miles. The river discharges between 9 and 32 million gallons of water per minute.

Using WildernessClassroom.com

Trans-Amazon Expedition Updates

Five days a week, through out each of the 3 stages, the team will update The Wilderness Classroom website, www.WildernessClassroom.com, from the Amazon using satellite technology. Each Monday morning there will be a full update, and Tuesday through Friday, the website will be updated with an Animal of the Day, Daily Photos, Daily Dilemma, a daily Pod Cast, and several other features.

Update Features

Notes From the Trail – Journal entries, with photos written about daily life on the trail. Updated on Mondays.

Video Clips – A multimedia approach to discovering the rainforest. The videos and player are directly embedded into the web site using Flash technology. Updated on Mondays.

Animals of the Amazon – Interesting encounters, facts, and profiles of the animals found in the Amazon Rainforest. Updated Monday – Friday.

Mystery Photo – Students can use their investigative skills to solve a mystery. Clues are provided as well as a page describing the photo and its relevance to the adventure. Updated Monday – Friday.

Cultural Connections – Interviews, profiles, and information about people we meet along the way and indigenous cultures living in the rainforest. Updated Mondays.

Daily Dilemma – Empower students to make decisions for the team, the adventure, and the world by submitting answers using short answer format that encourages persuasive or expository writing. Updated Monday – Friday.

Pod Cast – Each day, an Audio Update will be posted that contains location, weather data, and other interesting information from the trail. Updated Monday – Friday.

Cast Your Vote – Decide where the team goes, what they study, how they find shelter, or what they eat by making your voice heard at the polls. A new poll will be posted on Mondays so that students can vote throughout the week.

Trip Tracker – Each day, the team will post its location along with daily photos. Located inside Trip Tracker will be the daily data: temperature, distance traveled, and precise location utilizing Google Earth satellite maps.

Student Response Worksheets – Guided reading assessments for the week's updates. Questions are grade-specific (Early and Late Elementary), and ask comprehension questions from Notes From the Trail, Animals of the Amazon, and Cultural Connections.

Daily Activity - Lessons and activities to be used within your classroom to help you and your students get the most of the information posted to the web site.

Email the Team and Email an Expert - The team loves getting email from students. Submit the form and the team will personally respond to well-written, well-developed questions from students.

Using WildernessClassroom.com

Teacher Resources

Sign Up!	Getting Started	Lesson Plans
Registration for Trans-Amazon Expedition, including access to all online content, is free! Tell your friends!	A brief introduction to the benefits and goals of participating in an online learning adventure.	Our database of lesson plans, background information, worksheets, and activities based around a weekly thematic unit. Each activity and lesson plan is specifically designed for grades 3-8.
Archived Lesson Plans	Workshops & Assemblies	Chat Room
Lesson plans for all of the Wilderness Classroom's previous nine online learning adventures.	These events are available for schools in the Midwest. For a current schedule of workshops, or to arrange for an assembly at your school, please call Dave at (312) 505-9973.	Each week, bring your class into the Chat Room to communicate directly with the team. Dates and times will be posted on the Wilderness Classroom homepage. Please log your class on as one user. An LCD projector is a great tool for the Chat Room.

Kid's Zone -Not just for kids!

Boreal Forest Library	Rainforest Library	Amazon Activities
A vast resource for learning about animals, plants, and animals that call the boreal forest of Canada, Russia, and Scandinavia home.	A continually growing resource of plants, animals, and people of the Central and South American tropical rainforest.	Links and resources that provide students with additional rainforest information, plus tips for living green.
Email An Expert	Email the Team	
Do you have a question that would stump even an Expedition Team member? If so, email a scientist at Shedd Aquarium. On this page you'll find information about the expert as well as a form to submit your questions.	The team loves getting email from students. Submit the form and the team will personally respond to well-written, well-developed questions from students.	

Expedition Archives

You can view Wilderness Classroom's nine previous online learning adventures. Previous adventures include dogsledding across northern Manitoba, exploring the Costa Rican rainforest, canoeing the travel and trade routes of the Ojibwe, Cree, and French Voyageurs, and circumnavigating Lake Superior by kayak.

Wilderness Classroom expeditions highlight traditional, non-motorized travel methods in some of the most fragile and threatened ecosystems around the world.▶



Teaching Tips

Using Learning Adventures in YOUR Classroom

For eight years, The Wilderness Classroom has been developing and refining its approach toward online education. We've found that the students and teachers who benefit most from its content are those who use it on a regular basis.

Not every school's technology is the same. Some schools have computer labs with the most up-to-date software, hardware, and resources. However, we know that most of the schools that participate with Wilderness Classroom have limited computer access, and limited time as well. After careful planning with teachers who have participated in previous learning adventures, we've come up with some strategies to help you implement The Trans-Amazon Expedition into your classroom.

The students at Grand Portage Elementary School have participated in all 10 of our online learning adventures! ▶



Investigate the web site!

The more you know about where to go and what's there, the better you can answer your students' questions and keep students focused. Pre-read the updates so that you can anticipate student questions and needs.

Read the Unit Introductions

As a whole group, read the introduction to each unit. Think about the unit's role and importance in the overall adventure.

Print the Updates

Many of the Wilderness Classroom activities can be completed without a computer. Use the Notes From the Trail as a guided reading exercise. Reproduce the Daily Dilemma on the chalkboard or over-head laminate to foster discussion.

Use an LCD projector

Many of our participating teachers had never used an LCD projector before bringing an online learning adventure into their classroom. However, it is the perfect tool to focus a large group of students onto a teacher or student-directed activity. Guided-reading activities, group discussions and investigations, and chat sessions are perfect for the LCD projector. You can control the content and navigation or have a student volunteer/ helper browse the content.

Rotating Reporters

Assign a student or group of students to gather information from the most recent update and report back to the class. This works very well in an incentive-work program.

Small Group Reporting

If you only have one computer available, divide students into groups. One group can report on the Notes From the Trail, while another group reports on Animals of Amazon. One group may be plotting the team's progress on a map, while others might compare the weather and temperature in the Amazon to your school's weather data in a graph format. Rotate these tasks each week.



Teaching Tips

Managing Time

15 Minutes per Day	30 Minutes - 1 Hour per Day	1 - 2 Hours per Day
<p>Use The Wilderness Classroom during homeroom, attendance-taking, and other “sponge- time” activities.</p> <p>Allow students to explore the website if they finish work early or as a reward.</p> <p>Select a student reporter to read or share information from the Notes from the Trail.</p> <p>Listen to the Daily Podcast.</p> <p>Guess the Mystery Photo.</p> <p>Project or reproduce Notes From the Trail, Animals of the Amazon, or Cultural Connections to use as a guided-reading activity.</p> <p>Cast a Class Vote.</p> <p>E-mail an Expert a classroom-generated question.</p> <p>View a Video Clip as a class.</p> <p>Calculate the distance traveled during the week.</p> <p>Relate the distance to familiar places in your neighborhood.</p>	<p>Use cooperative groups to read the update. Assign, or let groups choose to read Notes From the Trail, Animals of the Amazon, and Cultural Connections. Have each group present their findings to the class</p> <p>Read Expedition Updates and allow students to work in pairs or small groups to fill in their Discovery Log</p> <p>Complete a whole class Discovery Log.</p> <p>Create a weekly K-W-L chart.</p> <p>Complete each update’s Student Response worksheet.</p> <p>Attend a Chat Session with the Expedition Team.</p> <p>Write an extended response to the Daily Dilemma.</p> <p>Generate a list of questions to submit to the team or Email an Expert.</p> <p>Keep a weather graph.</p>	<p>Submit an extended response to the Daily Dilemma via email.</p> <p>Have students keep a weekly Discovery Log. At the end of the week, discuss and create a poster of the class’ findings.</p> <p>Make connections between what the team is seeing this week compared to the week before.</p> <p>Discuss the possible outcomes of each Cast Your Vote choice. Make a pro/con list and decide the best option.</p> <p>Let students create an Animal of the Week bulletin board using the Rainforest Library for information and photos. Use other resources as well.</p> <p>Using clues from Cultural Connections, write a short story using expository writing techniques. Submit them to the Adventure Team via email.</p> <p>Turn your classroom into a virtual rainforest, allowing students to control the design.</p>
<p>Everyday Throughout the Day</p>	<p>Because Wilderness Classroom addresses a range of curriculum areas, the program can be woven into your activities throughout the day.</p> <p>Language Arts: Use Wilderness Classroom’s updates and the activities in the curriculum guide to integrate Trans-Amazon Expedition into your reading time.</p> <p>Math: The Daily Data provides plenty of opportunities to use real statistics and figures to explore math functions and concepts.</p>	

Update Feature Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
Notes From the Trail	X				
Animals of the Amazon	X	X	X	X	X
Daily Dilemma	X	X	X	X	X
Cast YOUR Vote!	X				Voting Ends
Cultural Connections	X				
TripTracker	X	X	X	X	X
Pod Cast	X	X	X	X	X
Daily Data*	X	X	X	X	X
Daily Photos*	X	X	X	X	X
Daily Activity	X	X	X	X	X
Mystery Photo	X	X	X	X	X
Student Response Worksheets	X				

* - Daily Photos and Daily Data are found within the TripTracker

Teaching Tips

Engaging your students



The Wilderness Classroom's unique approach to education lends itself to discovery. We encourage teachers to assume the role of adventurer along with your students. As a co-adventurer, you can share in their enthusiasm. We encourage you to familiarize yourself with our web site on your own, using this guide as a map. We also encourage you to attend one of our workshops, where we will go into greater detail and provide a wealth of background information about the flooded forest.

◀ **Peruvian children watch as Jennifer Covney works on an Expedition Update during Project Peru 2005.**



We encourage teachers to assume the role of adventurer along with your students.

Using the Discovery Logs

The Trans-Amazon Expedition will reveal the Amazon Rainforest to your students. We also hope to instill a life-long ethic of local conservation and environmental respect in your students.

Discovery Logs are designed to foster the connections between the Amazon and your local ecosystem.

Using the Discovery Logs will also help students find out what it takes to survive in *their* habitat, as well as developing the concepts of conserving resources and becoming global citizens.

As the adventure progresses, students will gain a greater perspective about the elements of survival and conservation. Transportation, seasonal changes, shelter, food, habitat, watersheds, and global citizenship each play a vital role in the survival and proliferation of a species in a given ecosystem.



Our team uses the Chat Room to answer students' questions during Project Peru 2, 2006.

Teaching Tips

Trans-Amazon Expedition Themes

Students for Sustainability

Our goal is to present the flooded tropical rainforests as a community of living things. The interactions between these living things impact the environment. Whether in predator-prey relationships, symbiotic relationships, or parasitic relationships, all living things inside a rainforest rely on other living things for food, habitat, and proliferation of the species.

We also hope to make connections between living things in the rainforest and students. As we explore the rainforest ecosystem, we will be asking students to think about their habitat, food, seasonal changes, healthy watersheds, transportation, shelter, and dependence on other living things for their own survival. One effective way to have students discover their own impact is for them to think about the things they eat, use, throw away, and take for granted everyday, and trace them back to their sources.

Habitat

Introduce your students to the three basic elements of habitat: shelter, food, and water. Discuss the elements of students' own habitat by questioning students what they know. Where does our water come from? Where is our food grown? What type of shelter do you live in? Try to have students answer these questions about an animal they've seen in their neighborhood.

Shelter

Have students draw their personal habitat map. First, have students think about their home's construction. Try to trace the building materials back to their sources. How did the building materials get to their house? What kinds of energy were used to build the house and transport materials?

Next, think about the things inside your house. What are they made of? Is there anything that you have too much of? How would you go about getting things you need? Is this the way it works for everyone?

Finally, how do animals and people construct homes in the flooded forest? What materials and sources of energy are used?

Seasonal Changes

Most students are pretty hard-pressed to attribute seasons' impact on survival. What would happen if you were transported to a different season wearing what you wore to school? Besides being uncomfortable, could it impact your survival?

Ask students about recreation according to the seasons. When is the best time to ride a bike? When is the best time to cross-country ski?

Ask students what role seasonal changes might have if they lived somewhere with only 2 seasons. What if they lived at one of the poles in either darkness or light?

Talk about how seasonal changes affect plants. When do plants bloom? When do plants produce fruit? When do you eat watermelon? Why do we celebrate Thanksgiving in the fall? Are there other holidays that are dependent on the seasons?

Finally, what are some examples of ways people, plants, and animals depend on and adapt to the high water season in the Amazon?

Teaching Tips

Trans-Amazon Expedition Themes

Food

Students do not generally know where their food comes from. Teaching about food is one of the most effective ways of demonstrating to students that their choices have effects, as the food choices consumers make have the greatest environmental impact. Getting students to think about food beyond the supermarket is not as difficult as it seems.

Dissect a pizza (or other commonly eaten food). What makes up a pizza? Ask students if they've ever seen a tomato growing? Do they know someone who has ever grown a tomato? Have they ever seen wheat growing? Who grows wheat? Where does the cheese come from? How is cheese made? Go through all of the toppings that might be found on a pizza.

Discuss how food gets to the student. Tell students to find foods from each continent during their next trip to the supermarket. How did that food travel? What resources were used? If it's produce, is it still fresh? Evaluate the costs of produce grown locally vs. imported. What role do seasons play in the cost of produce?

How does having access to a diverse diet help students stay healthy? Have people in the United States always eaten the way we do today? What are choices we can make to stay healthy?

What are food sources for the plants, animals, and people in the flooded forest? What are some of the food choices that the adventure team has made? Where does the food come from, and what impact does it have on the environment?

Transportation

People and animals are always moving. Humans and animals travel by air, land, and water. Movement has a significant impact on the environment. Roads need to be cut, gasoline must be used in all motorized vehicles, and trees need to be felled to build a dugout canoe.

How do your students travel? Make a list of all of the methods of transportation you can think of. What forms have you used? How are they powered? If your transportation is a vehicle, how many people does it hold on a regular basis? What types of energy/fuel are needed? What types of fuel have the least impact on the environment?

How are methods of transportation different in other areas of the world? Why are they different?

Now make a list for animals' transportation. Which animals use the land, water, or air?



During the Superior Waters Project in 2006, The Wilderness Classroom circumnavigated Lake Superior, the world's largest freshwater lake, in an effort to demonstrate fresh water conservation and education.

Teaching Tips

Trans-Amazon Expedition Themes

Watersheds

Part of what makes the Amazon so engaging to students is the amount of life the river sustains. The Amazon watershed is the largest on earth in terms of area, number of tributaries, and volume of water discharged. The Amazon River itself is the world's second longest river, measuring over 4,000 miles (the longest is Africa's Nile River). Watersheds play a critical role in the natural functioning of the Earth by offering fresh water to plants, animals, and people.

Students in the United States don't often have to think about where their drinking water comes from. The United States consumes water at twice the rate of other industrialized nations. Pollution of freshwater (drinking water) is a problem for about half of the world's population. Each year there are about 250 million cases of water-related diseases, with roughly 5 to 10 million deaths.

Getting students to think about their drinking water is simple. Have each student measure the amount of water used in a typical day. How many times do they turn on the faucet? What is the average amount of time that each faucet is on?

By contrast, people in the Amazon for the most part live without running water or plumbing. Gathering water is a daily chore, and therefore the cleanliness of the drinking water supply is vital to the Ribernerros (people of the Amazon). Pollution and contamination upriver impacts all the river's lower inhabitants. A river thus becomes the perfect metaphor for making personal environmentally-sound decisions for the entire population.

Global Citizenship

A basic philosophy to minimizing negative impacts on your environment is to reduce your use of natural resources, reuse anything and everything you can, and recycle renewable resources.

The most effective and empowering stance students can take on making a difference in global issues is to understand that their decisions *can* have an impact.

For this unit, we're asking students to use all of the knowledge they've gained during the previous weeks to become active in their own backyard. Even though we're focusing on the rainforest and global climate change, what we hope to impart is that the environmental problems associated with the rainforests and global climate change begins at home.

By teaching students about what resources they consume, like water, oil, electricity, and food, and how to consume them wisely, students can adopt a lifelong conservation ethic.



Demonstrating sustainable, renewable energy resources on the trail allows students to draw comparisons to their own lifestyle choices.

Frequently Asked Questions

How much does it cost?

Registration for The Trans-Amazon Expedition is free. Log on to www.WildernessClassroom.com to sign up. Follow the team, make decisions for the adventure, and learn about the Amazon Rainforest from March - May, 2008 and October - November, 2008.

How do I participate with Wilderness Classroom?

Access to WildernessClassroom.com is free to all registered users. The Wilderness Classroom does offer school assemblies, teacher workshops, and teacher in-services for schools in the United States. Please contact Dave at 312-505-9973 or dave@wildernessclassroom.com for more details.

What grades is the Wilderness Classroom curriculum targeted toward?

The Wilderness Classroom's complete curriculum is written according to 3rd – 8th grade Illinois learning standards. However, teachers from each grade from preschool through high school have registered for The Trans-Amazon Expedition.

What academic subjects are covered during The Trans-Amazon Expedition?

The Wilderness Classroom lesson plans contain a complete inter-disciplinary curriculum. Language Arts, Science, Social Science, Math, and Arts are all incorporated within The Trans-Amazon Expedition.

I'm an educator, but not in the traditional classroom setting. Can I participate?

Of course! Teachers and educators from nearly every educational setting have participated in Wilderness Classroom's online learning adventures.

We also encourage families to register for The Trans-Amazon Expedition. Parents and children can read updates and browse the Wilderness Classroom website more thoroughly than time often permits in class.

What software do I need to access the Wilderness Classroom web site?

The Wilderness Classroom website is available to any computer that has Internet access. You will need a current version of Flash for our videos and podcasts. Our interactive maps require Internet Explorer 6.0 or higher for Windows, Firefox 0.8 or higher for Mac/Windows, or Safari 1.2.4 for Mac.

School Assemblies

Trans-Amazon Expedition

School Assemblies are an integral part in connecting students to the Trans-Amazon Expedition. During the past eight years, we've found that assemblies are the most effective way to retain student interest throughout the adventure because of the personal connection made to the adventurers. Expedition Team Members become school celebrities because the Wilderness Classroom takes a strong interest in developing a personalized relationship with your school's students and faculty. Presentations help motivate students to become active learners by knowing their decisions will directly influence the expedition and responsible stewards of the earth.

Assemblies Include:



Wilderness Classroom Co-Director, Dave Freeman, helps a 4th grade student shoot a blow gun at a target across the room during a school assembly.

Slide show presentation give by Expedition Team Members, highlighting life in the Amazon

Assemblies are customized to your school's needs and audience. We can speak in front of one classroom or the entire school.

Hands-On experience with equipment used in the field

Introduction to biodiversity and ecosystems

Information on becoming active, globally-responsible citizens

Registration

Please contact Dave Freeman to set up a time and date for your school's assembly:

Phone: 312-505-9973

Email: dave@wildernessclassroom.com

Cost:

\$500 per school assembly

\$800 for two assemblies (one before and one after the Trans-Amazon Expedition First Stage), teacher in-service, and printed teacher's guides.



School Assemblies last between 45 and 90 minutes, given your school's needs.

Teacher In-Services

Trans-Amazon Expedition

Teachers that participate in the Trans-Amazon Expedition want to learn how to get the most of our web-based curriculum. Technology In-Services are a great way for groups of teachers to find out the best way to utilize all of the features of the Wilderness Classroom Web Site.

In-Services Include:



Dave Freeman on the trail in Pacaya-Samiria Bio-Reserve in Peru, 2005

Hands-On instruction from Wilderness Classroom curriculum developers, web-programmers, and Expedition Team Members

Training on Wilderness Classroom's web site and teaching tips to fit your classroom's needs, abilities, and content area.

Relaxed and personal instruction that works at your level of technology integration – from simple to advanced.

An easy way for more teachers from your school to participate in the Trans-Amazon Expedition, creating a whole-school approach to curriculum develop and establishing a multi-disciplinary community of learning and instruction.

In-Services are conducted before or after the school day in your school's computer lab or library. Encourage as many teachers from your school to attend the in-services.

Registration



From the trail to the classroom. In-Services are given by expedition members and WCO web programmers.

Please contact Dave Freeman to set up a time and date for your school's teacher-training:

Phone: 312-505-9973

Email: dave@wildernessclassroom.com

The Wilderness Classroom is a certified Illinois CPDU provider.

Teacher Workshops

Trans-Amazon Expedition

One of The Wilderness Classroom's primary goals is to have teachers become active members of the expedition. We firmly believe that the best teachers are those who learn alongside their students.



Teacher workshops are designed to answer your questions about the Expedition, the Amazon, and Wilderness Classroom's unique programming and curriculum. In only a few hours, workshops will provide you with the tools and skills to successfully integrate efficient technology-based activities into your existing lesson plans.

Workshops are two hours long and are held at the Shedd Aquarium, the Chicago Teachers Center, and various other locations around the Chicagoland area.

Registration

For a current list of workshops available and for registration information, please visit www.WildernessClassroom.com and click on **Teacher Resources**.

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