



Shout Challenge
Teachers Guide
Live with the Land

November 2010



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Table of Contents

I. Introduction

- a. What is Shout?.....Page 2
- b. Shout Competition.....Page 3

II. Explore – *Learn ways to incorporate 21st century skills and Information Communication Technology tools with content from the Smithsonian Institution Shout web conferences into your curriculum. Explore sample Shout challenges designed to trigger ideas for challenges that you or your students create.*

- a. Smithsonian Institution Web Conferences.....Page 3
 - b. Real World Problems & Student Driven Projects.....Page 4
 - c. Incorporating 21st Century Skills.....Page 4
 - d. Maximizing Information Communication Technology Tools.....Page 5
 - e. Extend the Learning.....Page 6
- Sample Shout challenges created to prompt you and your students to respond to your own real world environmental challenges – both locally and globally

III. Connect – *Find out how to connect with other teachers to share ideas and resources about Shout challenges. Learn how your students can collaborate with other learners across the globe.*

- a. Microsoft's Partners in Learning Network Shout Community.....Page 10
- b. Taking IT Global.....Page 10

IV. Act – *You and your students can take immediate action locally and globally; here's one global action you'll want to join now!*

- a. DeforestACTION.....Page 11

V. Additional Resources

- a. Links to Websites.....Page 12
- b. Links to Supporting Documents.....Page 12

I. Introduction: What is Shout?



Shout invites educators and students to take an active role in global environmental issues

[Shout](#) invites you to connect online to interact with experts in the field, share ideas, and collaborate with people around the world who, like you, are committed to solving environmental challenges. Shout gives participants a framework for success, with resources and tools for exercising social responsibility while building the 21st-century skills of collaboration, innovation, and critical thinking. When students are connected through technology and empowered to build activities in their own way the learning experience extends far beyond the four walls of a classroom.

The Shout program offers:

- Free online events hosted by the [Smithsonian Institution](#) that feature some of the world's leading scientists and environmental experts as well as representatives of other fields who bring diverse perspectives to the issues at hand. Sessions can be watched live in real time or in archived format in order to accommodate all time zones. *(See schedule of Smithsonian Institution Shout web events on Page 4)*
- Access to [Microsoft's Partners in Learning Network](#), a global community of educators who value innovative uses of information and communication technology, in order to share environmental education resources, experiences, and best practices with teachers around the world.
- Engagement of students in [TakingITGlobal's](#) online community, which provides resources and action tools, as well as the complimentary use of content-rich virtual classrooms and collaboration spaces designed to deepen environmental understanding and stewardship, enhance the development of 21st century skills, and facilitate continued communication with Smithsonian experts. Join [DeforestACTION](#), a global student-designed Shout action that raises awareness about the destruction of important native forests.
- A web portal that ties these elements together and provides access to additional tools and resources to support a range of "student challenges" – calls for deeper involvement that can range from capturing and sharing scientific data to developing youth-led initiatives for positive change.

Together, these components support a number of environmentally-themed "Shouts" to frame our understanding of our relationships and interactions with the natural world. Each Shout connects students and teachers to a live event, teacher networking, and student collaborations focused around a specific theme, and presents students with challenges designed to deepen their learning and engagement.

Learn more at www.shoutlearning.org

Shout Competition

Start taking action and participate in the Shout competition! Teachers and learners are encouraged to create their own innovative, real world Shout challenges and to actively participate in Microsoft's Partners in Learning Network Shout communities and Taking IT Global communities for learners. Winning educators and learners get to attend Microsoft's World Wide Innovative Educator Forum in Washington DC, November 2011, with travel and conference expenses (air, hotel, ground transportation, conference registration fees) covered by Microsoft.

**To receive notification of competition details, join
[Microsoft's Partners in Learning Network Shout community](#).**

**All Partners in Learning Network Shout community members will receive
an e-mail announcement when competition details are available.**

II. Explore

Smithsonian Institution Web Conferences

Free web events packed with content and conversation

This year's Shout theme is *Land*, but we won't be standing back and looking at the land from arm's length, we'll be considering several topics and issues from a variety of perspectives - science, art, culture, and history. The emphasis will always be the role of humans within these complex issues. We'll get involved with a wide range of scientific endeavors, from examining and experimenting to monitoring and measuring, both in online events and through our own activities. We'll meet artists who investigate natural phenomena and express feelings about nature that we'll also find in ourselves. And we'll discover how diverse people through the centuries and in cultures all over the world have understood, valued, and interacted with nature. Most importantly, we'll share our own ideas, energies, and projects with each other so we can all live with the land.

Every other month you are invited to join us for a Smithsonian virtual conference: lively, informative exchanges with experts in science, history, and the arts and people everywhere in the world. Presentations include visuals such as artworks and photographs, maps and graphics, and video clips - all archived for replay any time. Virtual exhibit areas provide even more connections to the Smithsonian's vast resources and expertise.

Schedule of free Smithsonian Institution interactive web conferences:

Live with the Land - November 16, 2010

Study the Land - January 26, 2011

Change the Land - March 16, 2011

Sustain the Land - May 18, 2011

Value the Land - July 13, 2011

Celebrate the Land - September 21, 2011

Register on-line for the Smithsonian Institution web conferences:

www.smithsonianconference.org/shout

Real World Problems & Student Driven Projects

Shout challenges address real world problems, whether they are right outside the school building or on the other side of the globe. Students are more motivated and engaged when they are learning about a problem or a project that has real, tangible results. A successful Shout challenge is also one where students – under the guidance of their teacher – design the project and seek their own solutions. A well-designed project-based learning scenario will, by its nature, be a student-centered activity. In this project-based learning environment, the teacher moves into a role of “facilitator of learning” rather than keeper and dispenser of knowledge.

For more information on real-world problems/ project-based learning:

- <http://www.edutopia.org/project-learning-introduction>
- <http://pblchecklist.4teachers.org/index.shtml>

Incorporating 21st Century Skills

Developing and including Shout challenges in your curriculum supports the teaching and assessing of 21st century skills like collaboration, innovation, and critical thinking. Shout challenges offer opportunities to explicitly discuss, show examples of and teach how to develop these skills. Build into your project plan a practical way to provide immediate assessments of how well the skills are being demonstrated by learners.

To help students become actively engaged as global citizens, employees and life-long learners, educators are shifting their focus from solely teaching content to also teaching and assessing critical skills for the 21st century. These skills include:

Creativity	Innovation	Critical Thinking
Problem Solving	Communication	Collaboration
Responsibility	Flexibility	Adaptability
Initiative	Self-Direction	Social Skills
Cross-Cultural Skills	Productivity	Accountability
Leadership	Media Literacy	Information Literacy
Information, Communications & Technology Literacy		

In addition to learning key skills, the knowledge that students need in order to succeed in the 21st century is the mastery of core subjects **plus** emerging 21st century content, such as:

Environmental Literacy	Global Awareness
Civic Literacy	Health Literacy
Financial, Economic, Business and Entrepreneurial Literacy	

For more information on 21st century skills:

- The 21st Century Technology Standards for learners and educators: International Society for Technology in Education (ISTE) <http://www.iste.org/standards/nets-for-students/nets-student-standards-2007.aspx>
- [Framework for 21st Century Learning](#) from The Partnership for 21st Century Skills

Maximizing Information Communication Technology Tools

Develop (or help your students develop) meaningful uses of new technologies to research, create and share information and ideas in ways that motivate and engage today's youth. Incorporate technology tools into a lesson or project when they will enhance learning, improve understanding or increase communication. Take advantage of communication technologies that your students might already possess – like cell phones, smart phones or digital cameras. Use of the electronic communication and the internet, especially on-line social networks, allow educators and learners to make connections about environmental issues with others around the world.

Microsoft has many free technology tools for teachers that can strengthen Shout challenges and assist you in sharing your projects with the world. Download Microsoft's teachers guide to free tools: [Microsoft Free Tools Teachers Guide](#)

Extend the Learning: Sample Shout challenges created to prompt you and your students to respond to your own real world environmental challenges – both locally and globally

The projects below are sample Shout challenges designed to trigger ideas for challenges that you or your students create. The samples are sketches of a lesson or a project that demonstrate an idea; they are not complete lesson plans. Please consider these sample Shout challenges as a way to activate your own innovative thinking and the creative thinking of your students. Key to the Shout Project is global action, and so each sample challenge below includes both a local action and a global action.

Project Title	Grade Level	Area of the Curriculum	21st Century Skills	Microsoft Tools	Links to Free Tools
1. Deforestation Video Game	Secondary school (3-12 grade)	English, Science	Creativity, Communication, ICT skills, Collaboration, Problem-solving, Research skills	Kudo Game Maker, Internet Explorer	Microsoft's Kudo video game maker is a free tool that even young learners can use to create video games: http://research.microsoft.com/en-us/projects/kodu/
2. A Universe of Trees	Elementary school (4-5 grade)	Biology, Earth Science, Astronomy, Geography	Critical thinking, ICT skills, Research skills, Media literacy	WorldWide Telescope, Excel, Bing	Microsoft's WorldWide Telescope is a free resource that turns your computer into a telescope: http://www.worldwidetelescope.org/Home.aspx
3. Photo Collage Landscape	Elementary school (7-8 grade)	Visual art, Science	Creativity, Communication, Problem-solving, ICT skills	AutoCollage	Microsoft's AutoCollage is a free tool that combines photographs to create collages: http://research.microsoft.com/en-us/um/cambridge/projects/autocollage/
4. Biodiversity: Endangered Animals as Movie Stars	Elementary school (grade 3-6)	Writing, Science, Visual art	Collaboration, Social responsibility, Creativity, ICT skills, Communication	Windows Live Movie Maker, Bing, Bing Maps	Microsoft's Windows Live Movie Maker is a free tool that allows learners to make movies that include video, still images and voice: http://explore.live.com/windows-live-movie-maker?os=other
5. School Yard Tree Map	Elementary school (grade 2-4)	Geography, Biology	Collaboration, Communication, ICT Skills, Problem Solving	Bing Maps	Microsoft's Bing Maps is a free tool that educators and learners can personalize with dozens of map apps: www.bing.com/maps
6. Song for a Cause	Elementary School (4-8 grade)	Biology, English, Writing, Music, World Languages	Collaboration, ICT Skills, Creativity, Cross-cultural Skills, Communication	Songsmith	Microsoft's Songsmith is a free tool for learners to create their own songs in a wide variety of styles: http://research.microsoft.com/en-us/um/redmond/projects/songsmith/index.html

1. Deforestation Video Game

Description: Working in teams, learners research a local problem caused by deforestation (or, if deforestation is not a major environmental issue in your immediate area, chose another environmental concern that has a real impact on your community), develop a problem scenario and create an online video game to teach other learners locally and globally about the issue. Use [Kudo](#) game maker, Microsoft's free video game software, to create video games that teach a concept or suggest solutions to deforestation.

Act Locally: Use video games to teach awareness of local deforestation challenges in your community by having your class sponsor a video game tournament within the school. Try posting the learner-made video games on your class website and hold a contest to see whose game gets played the most.

Act Globally: Video games can be posted on the [Taking IT Global](#) website for learners around the globe to play, learn from and comment on. To incorporate meaningful assessment of the games, learners can read suggestions posted on the site, improve their game and re-post. Consider partnering with a classroom in another part of the world and trade learner-created video games so each class can learn about environmental issues in another community.

Suggested Grade Level: Elementary and Secondary school (3-12 grade)

Areas of the Curriculum: English, Science

21st Century Skills: Creativity, Communication, ICT skills, Collaboration, Problem-solving, Research skills

Microsoft Tools: [Kudo](#) game maker, Internet Explorer

2. A Universe of Trees

Description: Learners develop a spreadsheet of data to respond to the question: “How well would trees in my neighborhood grow on other planets?” Learners identify and map out trees in their neighborhood and analyze what they need to survive. Using Microsoft’s free [World Wide Telescope](#) tool, learners learn about the atmosphere and conditions on other planets. Learners report their data and conclusions using a Microsoft Excel spreadsheet.

TIP: Search [Bing News](#) for recent news articles about images of what appear to be trees on Mars.

Act Locally: Lead your class in growing terrariums for a real world understanding of how an atmosphere works. Consider having your class challenge the rest of the school to help raise enough money to plant a native tree in the school yard or the local park.

Act Globally: Sign up your class to join [DeforestACTION](#) and collaborate with students who are working to reforest land in Borneo.

Suggested Grade Level: Elementary school (4-5 grade)

Areas of the Curriculum: Biology, Earth Science, Astronomy, Geography

21st Century Skills: Critical thinking, ICT skills, Research skills, Media literacy

Microsoft Tools: [World Wide Telescope](#), Excel, [Bing](#)

Source: Modified from Microsoft, <http://www.microsoft.com/education/lessonplans.msp>

3. Photo Collage Landscape

Description: After participating in the Smithsonian Institution's web event "Documenting the Reality of Our Landscapes" (or watching the archived version:

<http://www.smithsonianconference.org/shout/conference-live/>) learners use digital cameras to take photographs of their own landscape or local environment. Learners create a collage of their photographs using Microsoft's free [AutoCollage](#). Discuss threats to the local landscape and possible actions to prevent destruction of the local eco-system.

Act Locally: Partner with an art gallery or create your own art show to display photographs and collages. Host an opening event to raise awareness of actions to take that protect the local landscape. Sell photographs and collages to parents and community members as a fundraiser for an environmental organization in your area.

Act Globally: From the [Taking IT Global](#) website, learners in your class can encourage learners around the world to gain a deeper appreciation for their own local landscape by teaching them how to create an AutoCollage from photographs for their environment and posting it to the site. Learners in your class can compete with one another to see who can collect the most photo collages or who can collect photo collages from the widest variety of countries.

Suggested Grade Level: Elementary school (7-8 grade)

Areas of the Curriculum: Visual art, Science

21st Century Skills: Creativity, Communication, Problem-solving, ICT skills

Microsoft Tools: [AutoCollage](#)

4. Biodiversity: Endangered Animals as Movie Stars

Description: After participating in the Smithsonian Institution's web event "Deer in the Forest: Can There Be Too Much of a Good Thing?" (or watching the archived version: <http://www.smithsonianconference.org/shout/conference-live/>) learners use library resources and [Bing](#) to locate information about and images of endangered animals or animals threatened by loss of habitat. Learners select an animal to study and to star in their movie. Using [Windows Live Movie Maker](#), learners create a movie that tells the story of their selected animal. Movies can be posted to the class website or copied onto DVDs for learners to bring home.

Act Locally: Host a film festival at your school to teach the community about the importance of biodiversity, endangered animals and loss of habitat. Ask your local movie theater to show student films on the big screen before the movie begins to educate the local community about endangered animals in your area.

Act Globally: Begin a project by posing questions to your class like: "How are we responsible for the loss of habitat for an animal on another continent?" and "What can be done from our location to help protect the habitat of an animal on the other side of the globe?" Lead your class into a student-centered action project based on their responses to probing questions like the ones above. They might decide to

vote on an endangered animal in another eco-system and raise money for an organization dedicated to protecting that animal.

Suggested Grade Level: Elementary school (grade 3-6)

Areas of the Curriculum: Writing, Science, Visual art

21st Century Skills: Collaboration, Social responsibility, Creativity, ICT skills, Communication

Microsoft Tools: [Windows Live Movie Maker](#), [Bing](#), [Bing Maps](#)

5. School Yard Tree Map

Description: Working in teams and using [Bing Maps](#), learners search for an aerial map of their school yard or a nearby park. Outside in the school yard or park, learners identify the types of trees (and large plants that are visible on the map). On the Bing map of the school yard, learners mark the name of each tree. Learners can deepen the detail of their map by adding notes about each type of tree, color coding the types of trees and noting whether or not each tree is native to the local environment or not.

Act Locally: Learners study native trees and other local vegetation, and then create alternative maps of their school yard, imagining the best landscape design and the best trees for their area. Learners populate a new Bing Map with markers for each type of tree they would like to see in their school yard. Your class can partner with the school or the local park to redesign a section of the space with the plans students developed.

Act Globally: On the [Shout Project](#) website, encourage learners to explore the “Shout World” Bing Map. Add your school to the interactive map. Consider contacting a school on the map in a different part of the world and ask them to create and share their own School Yard Tree Maps. Share your School Yard Tree Maps with students from around the world on the [Taking IT Global](#) site and ask other classes to share their opinions or questions about your map.

Suggested Grade Level: Elementary school (grade 2-4)

Areas of the Curriculum: Geography, Biology

21st Century Skills: Collaboration, Communication, ICT Skills, Problem Solving

Microsoft Tools: [Bing Maps](#)

6. Song for a Cause

Description: Using [Songsmith](#), Microsoft’s free song-making tool, learners create and publish a song about an environmental issue that is important to them. Learners study the issue and try to include as many facts and action items as they can in their song. Allow students the time to explore all the styles of music available on Songsmith before they record their song.

Act Locally: Learners create songs to promote the cause of local environmental groups. Prior to creating their songs, teams of learners contact local environmental organizations and interview staff to learn what they want the key message(s) of their song to be. Learners partner with the organization by sharing ideas about lyrics and style of music. Final songs can be posted on organizations' websites, aired on local radio or distributed on CD.

Act Globally: Create environmental songs in multiple languages: Post song on [Taking IT Global](#) site and ask other learners to translate to another language. Challenge the class to see how many languages each learner can sign their song in. Consider writing a song for a global environmental organization, instead of a local one. Songs should act as awareness or education tools, spreading information about the chosen environmental issue.

Suggested Grade Level: Elementary School (4-8 grade)

Areas of the Curriculum: Biology, English, Writing, Music, World Languages

21st Century Skills: Collaboration, ICT Skills, Creativity, Cross-cultural Skills, Communication

Microsoft Tools: [Songsmith](#)

III. Connect

EDUCATORS: [Microsoft's Partners in Learning Network Shout Community](#)

Teachers participating in the Shout Project should join the [Shout Community on Microsoft's Partners in Learning Network](#) – an online community specifically for educators involved in Shout challenges.

Educators can join Microsoft's Partners in Learning Network to share ideas, receive announcements, ask other educators questions and search for ideas and lesson plans. The Microsoft's Partners in Learning Network is a global community of educators who value innovative uses of information & communication technology that improve learning outcomes. When you join the Partners In Learning Network, you can:

- Create or join communities & discussions
- Find lesson plans and activities, as well as share your own resources
- Access free tools and learning programs for your classroom and school
- Collaborate with like-minded colleagues, improve education in your own classroom and community, and ultimately help improve the quality of education globally

LEARNERS: [Taking IT Global](#)

Encourage your students to join [Taking IT Global](#) where they can communicate and collaborate with learners around the world. Taking IT Global serves youth primarily between the ages of 13 to 30 by enabling a collaborative learning community which provides youth with access to global opportunities,

cross-cultural connections and meaningful participation in decision-making. Here are some of the things Taking IT Global offers:

- Global online social network and hub for civic participation
- Content & tools for educators to facilitate rich, interactive learning experiences
- Outreach & Collaboration tools for events, networks, campaigns, and causes
- Research, development, and sharing of best practices on youth engagement
- Facilitated learning experiences through workshops, webinars, and e-courses

IV. Act

DeforestACTION

One way for you and your students to participate in Shout is to join [DeforestACTION](#), the first global Shout action, which is currently underway.

The DeforestACTION initiative was established in order to empower young people worldwide to become *inspired* by youth working to fight deforestation, become *informed* about the issues and politics of deforestation, and actively *involved* in finding a solution. Through DeforestACTION lessons, students will have the opportunity to:

- Develop and work on projects that raise funds and protect endangered forests; and
- Develop local projects related to the theme of deforestation, unique to their school and community.

The overall pedagogical aims and objectives of DeforestACTION are to:

- Collaborate on a global platform to solve global problems.
- Review and evaluate the causes, impacts and politics of deforestation at the local and global level.
- Analyze, using deforestation as an example, how to plan and organize for global issues using collaborative technology.
- Prepare action plans by engaging in interactive activities and taking part in valuable discussions with peers and mentors.

V. Additional Resources

Links to Websites

[Shout Project](#)

[Taking IT Global](#)

[Smithsonian Institution Shout Online Conference Series](#)

[Partners in Learning Network Shout Community](#)

Links to Supporting Documents

[DeforestACTION Teachers Guide](#)

[Microsoft Free Tools Teachers Guide](#)