

www.ology.amnh.org
THE MUSEUM'S SCIENCE WEB SITE FOR KIDS



OLogy

After-School Educator's Guide to OLogy Introduction and User's Guide



Table of Contents

OLGY'S FOR YOU IF ...	1
INTRODUCTION TO OLOGY	1
Science Homepages	2
TECHNICAL REQUIREMENTS	3
WHAT'S IN OLOGY	4
Topics	4
Hands-On Activities	4
OLogy Cards	5
Become a Member to Collect Cards	5
Make Online Projects and Submit Them to the Hall of Fame	6
HOW TO GET AROUND OLOGY	7
OLogy Homepages	7
Parts of an OLogy Card	8
Registration / Sign-In Page	8
Personal Homepage	9
Online Help Section	9

About the American Museum of Natural History

OLogy is developed at the American Museum of Natural History, one of the world's preeminent institutions for research, exhibition, and education across the life sciences, the physical sciences, and anthropology. The Museum houses more than 32 million specimens and cultural artifacts collected over more than a century of exploration, and has a scientific staff of over 200. OLogy is produced by the National Center for Science Literacy, Education, and Technology, which is part of the Museum's Education Department. The National Center's charge is to make the Museum's unparalleled resources available to children, families, schools, and community-based organizations across the country.

Production Team

This guide was developed by the Education Department and the National Center for Science Literacy, Education, and Technology.

Myles Gordon, Vice-President, Education
Rosamond Kinzler, Director
Francine Stern, Co-Producer
Eric Hamilton, Co-Producer
Ashton Applewhite, Writer
Steve Gano, Technical Director
Stephanie Fotiadis, Graphic Designer
Tiffany Stahl, Production Coordinator
Charles Liu, Ph.D., Department of Astrophysics, Science Content Consultant (Astronomy)

Special thanks to Roberta Altman, John Barell, Armistead Booker, Caroline Nobel, and Ellen Wahl

Advisors

Wendy Bernal, Director of Partnerships and Outreach, Girls Incorporated of New York City
Emilio DeTorre, Education Coordinator, Madison Square Boys and Girls Club
Keith Frazier, Coordinator of Youth Programs, Brooklyn Children's Museum
Jill Fruchter, Coordinator of Education Technology, Brooklyn Children's Museum
Maryann Stimmer, Coordinator of Science Programs, Educational Equity Concepts, Inc.
Shawonda Swain, Unit Director, Madison Square Boys & Girls Club, Navy Yard Unit
Brina Thurston, Coordinator, Grand Street Settlement, Intel Computer Clubhouse
Ouida Washington, Director, Childrens Aid Society

Pilot Sites

Jacob Riis Settlement House
Sulaiman Laguda, Youth Technology Specialist
Jennifer Sly, Community Technology Center Coordinator

Fredrick Douglas Children's Center
Martin Haywood, Technical Coordination for the Computer Lab

Madison Square Boys & Girls Club, Hoe Avenue Clubhouse
Nekisha Harris, Education Director

Far Rockaway Clubhouse
Val Roberts, Program Director
Simone Knights, Teacher

Brooklyn Children's Museum
Corrine Doron, Program Interpreter

Madison Square & Boys and Girls Club, Navy Yard Unit
David Inigo, Youth Development Director

Funders

The initial development of OLogy was made possible by a generous grant from The Louis Calder Foundation. The After-School Educator's Guide to OLogy is supported by a grant from The Charles Evans Hughes Memorial Foundation, Inc.

OLogy's for you if...

...you're an after-school educator on the lookout for fun science activities for your students.

...you like using technology in the classroom but you're not a computer whiz — or you only have a few computers.

...you have little to no science background.

...you're a science teacher looking for hands-on activities as well as online learning opportunities.

...you need a one-hour activity that lets kids hit the ground running, or you want to explore a topic in depth.

Check it out at <http://www.ology.amnh.org/>

OLogy is the Museum's free, easy-to-use science-rich Web site for kids. The After-School Educator's Guide to OLOGY shows after-school educators how to make the most of OLOGY. It explains the site and suggests paths through the material that suit the size and structure of your program. Referring to the site (<http://www.ology.amnh.org/>) while reading through this booklet is recommended. This Educator's Guide includes: an *Introduction and Users Guide*, *Using OLOGY: Methods and Suggestions*, and *Site Maps*. In addition, individual *Content Guides* to the Paleontology OLOGY Web Site and the Astronomy OLOGY Web Site are available online at <http://www.amnh.org/resources/ology/afterschool.php>. Each OLOGY topic will be eventually be accompanied by its own *Content Guide*.

Introduction to OLOGY

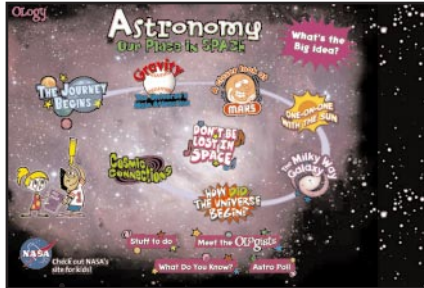
OLogy is the Museum's Web site for kids at home, at school, and whenever and wherever kids are curious. The site taps into the innate scientific curiosity of kids ages 7 through 11 by building on their many questions about the natural world. At OLOGY, they can play games, meet real OLogists, ask questions, and read stories as they dig into topics that interest them.

OLogy contains sections on various topics, such as paleontology, astronomy, genetics, archaeology, biodiversity, physical science, and marine biology. Each of these sections is a distinct "OLogy," in which major concepts are introduced through stories, games, and interactives, as well as hands-on activities to do away from the computer. OLOGY is always growing as new topics are added to the site.

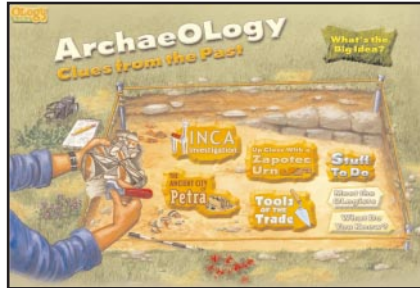
Kids can use this Web site to explore places they could never reach on their own — to go on a "scientific expedition" or behind the scenes in the Museum's research labs. The overarching purpose of OLOGY is to give kids a fun way to enjoy scientific discovery.

Science Homepages

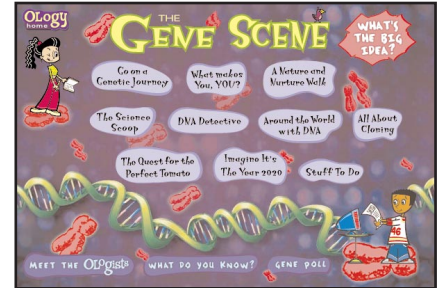
From the OLogy homepage you can reach all of the topics offered on OLogy. Each topic homepage lists related features. Over time, more topics will be added. Below is OLogy as of December 2003.



ASTRONOMY



ARCHAEOLOGY



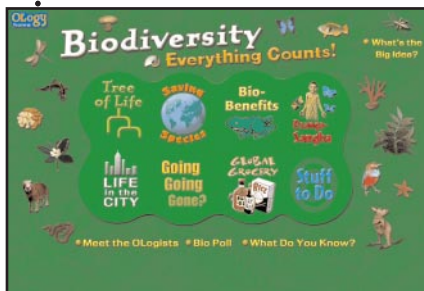
GENETICS



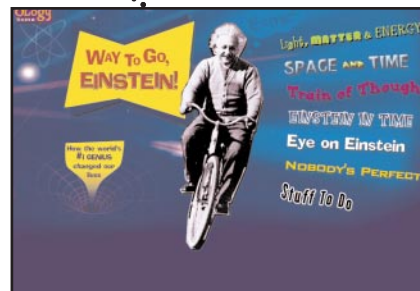
OLOGY HOMEPAGE



MARINE BIOLOGY



BIODIVERSITY



PHYSICS



PALEONTOLOGY

Technical Requirements

Many sections of the OLogy site require only an internet browser. You'll need additional software (listed below) that can be downloaded for free from the internet in order to take advantage of all the interactive features, including the OLogy cards.

What You'll Need

- **One of these Web browsers:**

- Netscape 4+
- Internet Explorer 4+
- Opera
- Safari

- **Printer:** in order to print hands-on activities and reproducibles

- **Connection speed:** The site will work over a 56K modem. Of course, a broadband connection (DSL, cable or T1) will work even better.

- **Free Plug-ins**

- Flash MX
(<http://www.macromedia.com/go/getflashplayer/>)
- Adobe Acrobat Reader 5+
(<http://www.adobe.com/support/downloads/main.html>)
- Shockwave 7+
(<http://sdc.shockwave.com/shockwave/download/download.cgi>)

When you're on the OLogy site and a plug-in that you don't have is needed, a link to the download source will appear.

Getting Started

Before you explore the site, check out the software on your computer. If you're missing one of the plug-ins above, follow these easy steps:

- Click on the URL provided above, which will take you right to the download page.
- Select your computer type and operating system (e.g. Macintosh OSX).
- Click Download. A window will appear on your desktop and disappear when the download is finished.
- You'll see an icon for the compressed file on your desktop. Double-click on it to get to the Install icon.
- Double-click on the "Install" icon. Either the program will automatically install on your hard drive, or further directions will appear onscreen.
- Before using the site with your kids, test to see that each plug-in has been installed correctly.

— Test Flash by clicking on the spinning red asterisk on the OLogy homepage (or on any asterisk on the site) to view an OLogy card.

— Test Adobe Acrobat by going to http://ology.amnh.org/marinebiology/stufftodo/stationery_main.html to access the "Make Your Own Stationery" activity.

— Test Shockwave by going to <http://ology.amnh.org/astronomy/inSPACE/indexmi.htm> to hear the "Don't Be Lost in Space" song.

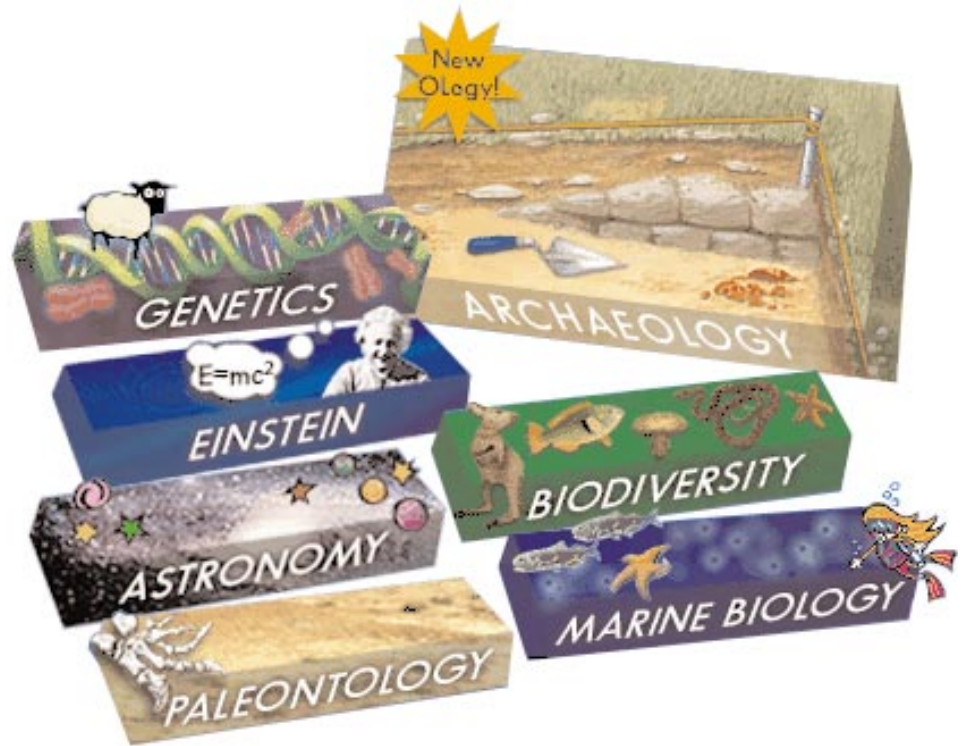
If the document or activity does not appear, it may mean that your installation was not successful and you should repeat the process.

What's in OLogy?

Topics

The suffix “-ology” means the study of something. Each OLogy topic covered on the site is a specific scientific discipline: paleontology, archaeology, astronomy, genetics, marine biology, physical science (Einstein), and biodiversity — so far. (*Content Guides to the Paleontology and Astronomy OLogies are currently available.*) Unique features, in the form of games, stories, and interactives, convey key concepts within that science. For example, “What Makes You YOU?” is about an individual’s DNA, while a “Walk Through Mendel Park” investigates nature and nurture. Both deal with genetics and are found in the Genetics OLogy.

In addition, each OLogy usually contains the following features: **Big Ideas** (introduction to key concepts), **Stuff to Do** (hands-on activities), **Polls**, **Meet the Ologist** (interviews with scientists), and a **Quiz**. All of these features delve into fundamental concepts in engaging ways that encourage scientific thinking. For example, as kids see how paleontologists dig for fossils, they learn how scientists piece together what life millions of years ago was like. These stories and activities reflect the Museum’s exhibition and research priorities and model the way Museum scientists ask questions; observe, collect, and sort their data; develop theories; and publish their work. This exposes kids firsthand to the adventure of authentic, cutting-edge science — the way science actually happens.



Hands-On Activities

Are you looking for a hands-on activity, like making a birdfeeder out of juice cartons? Every OLogy has an area called **Stuff to Do Away from the Computer**, which is full of experiments and craft projects that don’t involve computer access once the directions have been printed. These range from extracting DNA with a blender, to building a coral reef diorama, to drawing a monarch butterfly the way a scientific illustrator would. The necessary materials are inexpensive and readily available, and the activities require little or no prep time. They make it possible to bring the OLogy experience into a variety of settings, like the kitchen or art room, and give kids the chance to invent, investigate, and make things to show their friends and families.

OLogy Cards



One of the site's most engaging components is a set of over 200 interactive virtual OLogy "cards." These appeal to children's love of digging into a topic and collecting and classifying information. **Embedded throughout the site are red asterisks that indicate the presence of a card about the person, place, thing, or phenomenon highlighted by the asterisk.**

(You can refer to "Parts of an OLogy Card" on p. 8 for a look at a sample card.) Click on the red asterisk, then "flip" the card over for stories, quizzes, statistics, and photos about topics that range from Albert Einstein to the blue-ringed octopus. As kids explore the site and examine the cards, they can click on the "Collect Me" button on each card and add it to collections on their personal homepages. They can also build online projects with the cards they collect.

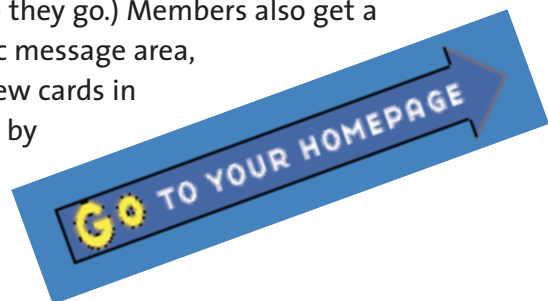


Become a Member to Collect Cards

AMERICAN MUSEUM OF NATURAL HISTORY
OLogy Member
NAME
slippery scorpion 1
PASSWORD
.....
ANSWER TO SECRET QUESTION
.....
www.ology.amnh.org

In order to collect cards and make online projects, kids need to become **OLogy members**. (Membership is not necessary in order to see OLogy cards or to explore the site.) Registering is as easy as clicking on "Go to Your Homepage" from the OLogy homepage, or on the "Collect Me" button on an OLogy card. Newcomers are then prompted to join and are guided through the registration process with easy-to-follow instructions. Once registered, kids get individual OLogy Member cards, along with funny usernames and passwords for privacy. (No personal information is required, and no

one else can see what kids make or where on the Web site they go.) Members also get a personal, customizable homepage that includes a dynamic message area, access to collected cards, and the ability to compile and view cards in ways that can form the basis of online projects assembled by the kids themselves. Returning members simply sign in, and can then access their homepages.



Make Online Projects and Submit Them to the Hall of Fame

This is the place where kids can use their knowledge, creativity, and card collections to make projects that investigate scientific questions. Kids are encouraged to think and write creatively, using what they've learned.



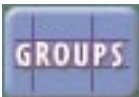
The site provides three templates for making projects (with more on the way):



Story Starters: Kids are provided with a first sentence that's missing a word. They then insert a card to complete the sentence, and compose the rest of the story.



Stumpers: Kids create a multiple-choice question (similar to the quiz on each Ology card) and insert three cards as possible answers. They then explain why one of the cards is the right answer.



Groups: Kids place up to 15 cards in a blank area and write an explanation of what unites the cards in a particular category.



Projects can be submitted to Museum staff for review. The most creative and interesting are posted online in the Hall of Fame for everyone to see. Kids can participate over and over in this culminating activity, which builds community, reinforces scientific activities and habits of mind, and gives kids a sense of ownership and achievement.

How to Get Around OLogy

OLogy Homepages

The OLogy homepage shows all of the major sections of the site. From there you can dig into a topic, visit your personal homepage, check out the Hall of Fame, or visit the Help section.

These screenshots show how to navigate the site:

The screenshot shows the OLogy homepage with several callouts:

- Help Site Map**: Points to the 'HELP' and 'SITEMAP' buttons at the top.
- Click here to register to become an OLogy Member, or to sign into your personal homepage and card collection.**: Points to the 'GO TO YOUR HOMEPAGE' button.
- Click on the [red dot] to see an OLogy card. There are 234 more OLogy cards to collect them all!**: Points to a red dot on the 'ARCHAEOLOGY' card.
- See the OLogy card of the day!**: Points to the 'New! HALL OF FAME' button.
- See projects that have made it to the Hall of Fame.**: Points to the 'Meet the Ologists' section.
- Every OLogy topic offered can be reached by clicking on it from the homepage.**: Points to various topic cards like 'ASTRONOMY', 'GENETICS', 'BIODIVERSITY', 'MARINE BIOLOGY', 'EINSTEIN', and 'PALEONTOLOGY'.

No matter how deep you go, a virtual “bread crumb trail” shows where you are and how you got there. Look at this example to see how your path is kept track of at the top left of your screen.

The sequence shows the following steps:

- The OLogy homepage with 'MARINE BIOLOGY' circled.
- The 'Marine Biology' page with 'Stuff to Do' circled.
- The 'Stuff to Do' page with 'Crazy Camouflage' circled.

1. You were on the OLogy homepage.
2. Then you clicked Marine Biology.
3. Then you chose Stuff to Do.
4. Then Crazy Camouflage, and that's where you are now.

The screenshot shows the 'Crazy Camouflage' page with a breadcrumb trail at the top: 'Ology home Marine Biology Stuff to Do'. The main heading is 'Crazy Camouflage' and the text below explains: 'Camouflage helps animals survive in different ways. Some animals use camouflage to help them sneak up on their prey. By the time an unsuspecting fish notices its disguised predator — CHOMP! — it's too late. Camouflage also helps some sea creatures hide from their predators. A number of sea creatures can instantly change the coloring and pattern on their skin if'.

Remember: At any time, you can click on the “Ology Home” button at the top left of your screen to take you back to the OLogy homepage.

Parts of an OLogy Card

CARD FRONT

Click on the “collect me” button if you want to collect a card. In this same area, you can see the number of the card.



Card Title

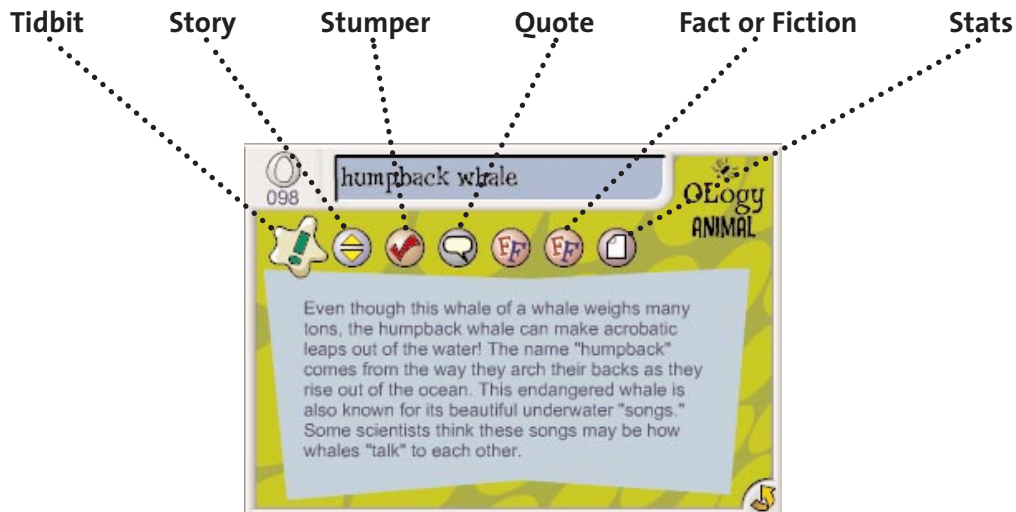
Card Series

Cover Image

The flip arrow takes you to the other side of the card when you click on it.

CARD BACK

Click on the buttons to see the various “sides” or sections of an OLogy card. Every card has a different selection of the various card sides, and not necessarily every kind.



Registration / Sign-In Page

If you are new to OLogy and don't have a username and a password, you can join. Click the Join OLogy button and follow the simple instructions until you are registered.

The image shows the OLogy Sign-In page. It has a purple background with a pattern of white circles. At the top left is the 'OLogy home' logo. The main heading is 'OLogy Sign-In'. There are two main options: 'Are You New?' with a 'Join OLogy' button, and 'Welcome Back!' with a 'Sign In' button. Below the 'Sign In' button is a form with fields for 'FIRST NAME', 'SECOND NAME', and 'NUMBER'. The 'FIRST NAME' and 'SECOND NAME' fields have dropdown menus. Below these is a 'Type your OLogy Password' section with a 'PASSWORD' field and a 'Sign In' button. There is also a link for 'forget your Password?'. The 'Sign In' button is highlighted in yellow.

If you already have a username and a password:


1. Choose your first and last name from the drop-down menus.

2. Type in your user number.

3. Type in your password.

4. Then click Sign In.

Personal Homepage



Your username

News and messages from the staff at OLogy will show up from time to time in this window.

Click here to choose another background.

Click here to go to your stats page to fill it out or make changes.

Click here to view all the OLogy cards you've collected.

Click here to go to your Projects section.

Sign out here so someone else can sign in and see her personal homepage.

Check it out!
Check out **Drawing Dinos** to learn how a dinosaur skeleton is brought to life on paper.

YOU HAVE 34 OLOGY CARDS IN YOUR COLLECTION!

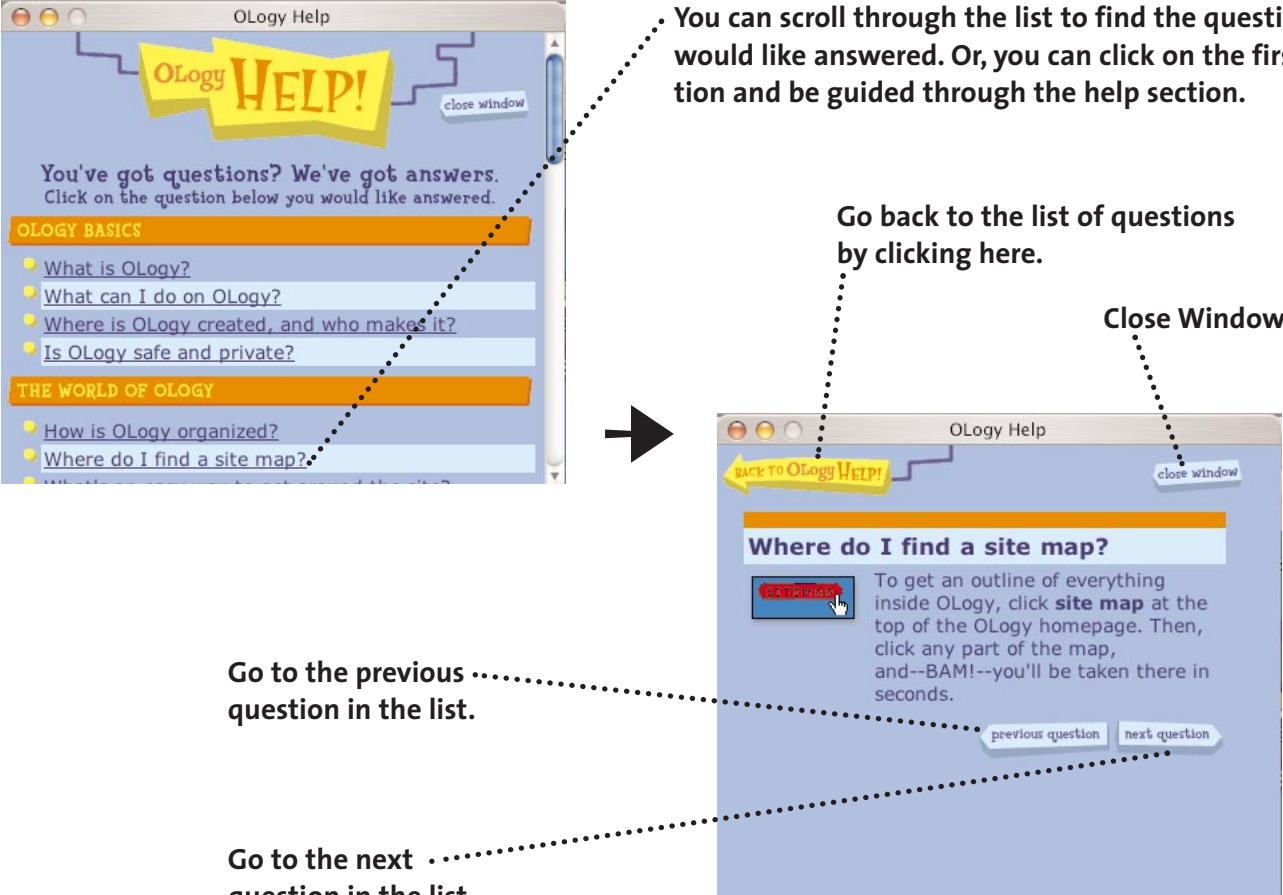
YOU HAVE 2 PROJECTS

LATEST PROJECT:
"Dinos from the Gobi"

SEE IT CHANGE IT

VISIT THE HALL OF FAME

Online Help Section



You can scroll through the list to find the question you would like answered. Or, you can click on the first question and be guided through the help section.

Go back to the list of questions by clicking here.

Close Window Button

Go to the previous question in the list.

Go to the next question in the list.

What is OLogy?

What can I do on OLogy?

Where is OLogy created, and who makes it?

Is OLogy safe and private?

How is OLogy organized?

Where do I find a site map?

Where do I find a site map?

To get an outline of everything inside OLogy, click **site map** at the top of the OLogy homepage. Then, click any part of the map, and--BAM!--you'll be taken there in seconds.

previous question next question