

ANTARCTIC CLASSROOM: TEACHERS' GUIDE FOR LIVE CONFERENCING VIA HANDS-FREE TELEPHONE CONNECTION

INTRODUCTION

Antarctic Classroom is designed to be an interactive experience between the crewmembers of the expedition the Antarctic Mission and school groups of all ages and all horizons. From autumn 2005 through spring 2007, the crew of the *Sedna* is exploring the area on the planet that has undergone the most warming in the last 50 years, namely, the Antarctic Peninsula.

Mission leader Jean Lemire and his crew invite your students to join them on their scientific expedition in search of solutions to the world's energy problems through the educational activities offered here.

The high point of the kids' involvement will undoubtedly be the conference via satellite, during which they will be able to communicate directly with the *Sedna's* crewmembers without ever leaving school. Using a hands-free telephone, they will have the opportunity to ask questions, in real time, on the climate of Antarctica, the marine life found there, life on board the *Sedna*, and above all, issues related to global warming. And, since we believe you can't put a price tag on education, it's free!

OBJECTIVES OF THE "ANTARCTIC CLASSROOM"

The Antarctic Classroom has two main objectives: 1) to get kids thinking about the world's energy problems and 2) to encourage personal involvement in solving these problems through tangible environmental actions.

1. GETTING KIDS THINKING

The first objective of the Antarctic Mission involves energy issues, which are global in nature and affect us all, wherever we live on the planet. Thus, the way we live—consuming more and more energy in our everyday lives—has a destabilizing effect on ecosystems in places as distant as Antarctica.

2. INITIATING PERSONAL INVOLVEMENT THROUGH TANGIBLE ENVIRONMENTAL ACTIONS

By becoming "virtual mariners," your kids give evidence of their desire to make a personal commitment by taking on tangible environmental action projects.

Stage 1: Before the Conference

- Take care of technical set-up.
- Explore the sections "Climate Change" and "Take Action" on the Antarctic Mission website, where we suggest a variety of simple yet effective environmental actions to reduce greenhouse gases.
- Prepare seven questions for the live conference with *Sedna* crewmembers.

Stage 2: The Day of the Conference

- Live conference with the *Sedna*.
- Invite kids to sign up to become "virtual mariners" by taking on a tangible environmental action project locally.
- Make the decision to accept the invitation extended by the members of the expedition.
- Solicit feedback on major environmental issues presented, in a large group setting.

Stage 3: What's next?...Taking action!

- Carry out an environmental project.
- Send a written document and photographs of the class, describing the project they have undertaken. These materials may be posted on the website.
- Receive acknowledgement for tangible actions: participation prize, outstanding project prize, "hall of fame of everyday environmental heroes" at the Montréal Biodôme, etc.
- Receive "Virtual Mariner" certificates.
- Broaden visibility and renew commitment.

READ CAREFULLY BEFORE GETTING STARTED IN THE ANTARCTIC CLASSROOM

I – SOME PRACTICAL ADVICE

To help you find your way, there are two people available to help:

- Project coordinator Martine Audibert (Montreal)—her email: ecole@sedna.tv
- The person in charge of the school program on board *Sedna IV*, Ms. Pascale Otis, biologist (*Sedna IV*, Antarctic): potis0@stratosnet.com

1. Contact the Antarctic Classroom coordinator as soon as the program is off the ground. Do this **before** starting the educational activity with your kids (you'll receive an email with contact information for the representative of the Antarctic Mission). This way, you can avoid disappointment in the event that the dates that suit your class turn out to be already reserved for another group.

2. Consult the official [Antarctic Mission](#) website, where you'll find many resources to help you plan your educational activities.

- In the section entitled "The Expedition Live," which is updated on a daily basis, you will find the captain's log, the ship's log, a gallery of breathtaking photographs and the video of the week.
- In the menu at the top of the page, click on "The Expedition" to learn about the Antarctic Mission and the people who make up the crew of the *Sedna*. In the same menu, two sections—Climate Change and Take Action—provide invaluable resources for your kids.
- In the section Antarctic Classroom, your kids can learn about a variety of environmental actions taken by school groups all over Canada.

II - CONFIGURATION REQUIREMENTS

1. Check with your school's technical staff to be sure you have access to a telephone with "hands free" capability.

2. Double-check with the technical support staff at your school to be sure that this telephone can be installed in the room where the live conference with *Sedna IV* will take place.

3. Run some tests to make sure you are comfortable and in control of "hands free" operation of your phone.

4. On the day of the conference, a crew member will call you on this phone.

5. No other installation is required!

Unfortunately, only those schools that are sure to have the required configuration will be able to take part in the Antarctic Classroom.

ANTARCTIC CLASSROOM: HOW IT WORKS

I - BEFORE THE CONFERENCE

A. Class Discussion

1. Ask the kids how they feel about the climate change we've been hearing so much about in the media. (Discouraged? Pro-active? Powerless before the immensity of the challenge?).
2. Then invite them to talk about what they know about Antarctica (geographical setting, climate, animal life, etc.) and briefly introduce the matter of climate change as it pertains to the frozen continent.
3. Encourage kids who are familiar with the Antarctic Mission to explain to the rest of the group what it's about and where they heard about it. Finally, ask the kids to describe the sort of expedition that they would like to be a part of, the job they would like to handle on such an expedition and why. Write down the responses gathered.
4. Announce to the kids that a meeting time has been arranged with the crew of the *Sedna*. They will have the opportunity to ask the crew seven questions relating to the climate of Antarctica, the animal and marine life there, life on board the *Sedna* and, above all, the global warming issues.

B. Preparing the Seven Questions for the Crew

1. Set aside some class time to become familiar, as a group, with the daily log entries and the course of the *Sedna*.
2. Watch the videos of the week, soak up the breathtakingly beautiful images in the photo gallery and learn about the scientific experiments conducted aboard ship. Finally, use the live conference to establish a connection between the topics studied in class, the Antarctic Mission and environmental issues.
3. Before arriving at the seven questions that will be posed during the conference, hold a brainstorming session with the kids to come up with ideas. Give all the boys and girls a chance to argue the merits of their ideas, then decide as a group which ideas to keep.
4. Email your seven questions to the Antarctic Classroom coordinator (you'll receive an email with the coordinator's contact information). She will then forward your questions to the crew of the *Sedna*.

You can also write to Pascale Otis, who is on board the Sedna IV in Antarctica (you can write to her directly at the email address provided on page 2 of this document or by selecting her name in the list when you write to a crewmember through the website: www.sedna.tv). She will then handle set-up of the direct link-up to your classroom on the day of the conference. In the mean time, awaiting the big day, she'll be delighted to make your acquaintance via email!

5. Set aside practice time for the kids who will be asking questions during the live conference

II - THE DAY OF THE CONFERENCE

A. The Conference

On the day of the interview, at the appointed time, you will be able to communicate directly with the crew of the *Sedna*.

1. Make sure the telephone is indeed connected and working properly. Be ready to switch over to “hands free” operation.

2. Now that everything is in place to welcome the crew of the *Sedna* into your school, plan a half-hour or so with your kids before the start of the activity. This moment of eager anticipation will provide the perfect opportunity to establish a mood for the Antarctic Mission...

- Have the kids practice asking their questions in a setting that simulates the live encounter.
- Take a deep breath! Everything will be fine!

3. At the appointed time, the phone will ring.

Your class will automatically be linked to *Sedna* via satellite. You will then be able to hear Pascale Otis, and possibly another crew member, talking to your kids directly. Then, simply let the magic work on your kids. After a few words of greeting, the question period begins, a dialog takes shape, the kids are invited to sign up to be “virtual mariners”...Everyone wishes each other good luck, the explorers return to their mission, the kids have been encouraged to carry on with theirs...The interview should last about 10 to 15 minutes at the most—ten thrilling minutes fraught with excitement, but also loaded with words of encouragement and optimism for your kids!

Tip: *Why not assign two of your kids the task of filming the live conference? With a simple hand-held camera, one of the producers can capture the spontaneous responses of his/her classmates while the other records the conversation and films the image of the interface through which the crew of the Sedna is speaking to you. And voila! Precious minutes of a unique experience are preserved for posterity and for the delight of all. Don't forget to take pictures!*

Note: *The Sedna is far away, and satellite links can sometimes be unstable. It may occur that conditions beyond our control affect the quality of the communication. If tests prove fruitless after a few tries, you'll have to contact the program coordinator, who will reschedule the conference for another day. It may also occur that communication is interrupted during the conference. If this happens, Pascale Otis will redial your number immediately to carry on with the conference.*

B. Feedback on the Live Conference

Your kids have seen and heard the message and understand it better now that they have talked to these important figures. Climate change is an issue affecting our entire planet. It's a matter of energy use and consumption habits that plays out on a worldwide level. The crew of the *Sedna* made the decision to spend more than a year studying the phenomenon in the world's largest laboratory, the Antarctic Peninsula, because it is the place on the planet that has undergone the most drastic warming over the past 50 years. Now, while this research is well underway, tangible actions aimed to reduce our energy consumption are about to emerge in the world around us.

While the issues of climatic warming is global, the real solutions are right in our back yard. It is through actions taken locally, in our communities, that together we will succeed in meeting the great challenge that lies before us.

1. After the conference, invite the kids to give their impressions of the experience they've just had.

How has the conference affected them personally? What did they learn from the answers to their questions and the testimonials of the crew? What connections did they see between what is happening here and the Antarctic region? How do they feel about the becoming “virtual mariners?” How do they feel about becoming involved in carrying out tangible environmental actions? Enthusiastic? Powerless? Put out? Ready to take action?

2. Ask your kids whether they make a personal commitment to carrying out a tangible environmental action. Tell them that their efforts will not be left to gather dust in the back of their desks. The members of the mission’s crew believe that it is important for every tangible action that sees the light of day to receive its fair share of recognition. This is why it is important for your kids to know, before undertaking a project, that this project will be posted on the official website of the Antarctic Mission and that it might be included in the “hall of fame of everyday environmental heroes” at the Montréal Biodôme and other science centres near them. There will be prizes for participation as well as prizes for outstanding projects, with surprises that will tickle the fancy of more than one kid!

III – WHAT NEXT?... HOW TO TAKE ACTION

A. First, gain an understanding of energy issues, then take action!

Now, you’re ready to take action, but where to begin?

1. Before going forward with the choice of a tangible environmental action to undertake, take time to bring the kids to a real understanding of the what is at stake when dealing with energy issues. The “Climate Change” section is chock full of information on climate change, greenhouse gases and other climate-related topics that will prove very useful to your educational approach.
2. In “Take Action,” you will find a great many hyperlinks appropriate for a wide range of school kids. Also listed in this section are links to websites presenting initiatives that your kids can take on with a few basic resources.

***Tip:** Consult the “Take Action” section together. Give your students a homework assignment to use the resources in this section to find some tangible actions that can be implemented at school or in the community. On the next day, review the proposed possibilities in class; imagine scenarios and draw up a feasibility plan. Finally, work cooperatively with school administrators, the parents’ committee, city councillors and any other participant who might help to make the action feasible.*

Other school groups’ projects, presented in the “Antarctic Classroom” section, could prove to be the most useful resource of all. Give the kids time to gather inspiration for implementation of their own environmental action.

Above all, don’t forget the essential key to any successful project: **ENJOYMENT!** Foster team spirit, and encourage every large or small action made by participating students. Taking on an environmental project could at last prove to be a golden opportunity to give the kids who do not seem to be shining in the school environment a role to play that will put the spotlight on the many talents they have but that they have trouble finding ways of expressing in a more conventional educational context.

B. Acknowledgment of Tangible Actions

Your kids have answered the call. They’ve worked hard to make their contribution to the planet’s well-being through the creativity and know-how that they have shown. Hearty congratulations are in order! The crew of the *Sedna* is anxious to see the projects that their “virtual mariners” have come up with.

Congratulations to you as well! It is only through your personal dedication that the kids will have brought their project through to completion. We know how demanding it is to plan, coordinate and put into action such an activity.

The time has come, then, to feature your class’s environmental project on the official Antarctic Mission website. When you send in the report on your tangible action, it will be used for this purpose. We will also

make sure your class gets signed up for all of the various contests mentioned previously—for example, prizes for participation, prizes for outstanding projects, and a spot in the “hall of fame of everyday environmental heroes” at the Montréal Biodôme.

C. Format and Instructions for Sending Class Projects to the Antarctic Mission

Plan to write two types of documents addressed to our coordinator. The first document will provide a summary description of your project to the thousands of internet surfers who visit the Antarctic Mission website. A hyperlink on the photograph will take them directly to the detailed version of the presentation of your environmental action.

A brief summary of the project with photograph

Prepare a short text of approximately 300 characters, in Word format, including the following information:

- The grade level, the teacher’s name, the name of the school and the community where the school is located.
- A summary presentation of the tangible action undertaken by the class.

The document is to be double-spaced in Arial 10 pts.

Also include a colour digital colour photograph (quality JPEG format) depicting the action undertaken by the kids.

Detailed description of the project with several photographs

Prepare a one-page document (about 500 words), in Word format, describing the following:

- The grade level, the teacher’s name, the name of the school and the community where the school is located.
- The stages of the project.
- The location where the project has been set up.
- The contribution made to reducing greenhouse gases.
- What the experience brought to the class, the school, the community, etc.
- The various participants in the project (administrators, parents, the mayor, etc.)
- Any other information that you consider pertinent in regard to the environmental action.

b. Include two or three digital colour photographs (quality JPEG format) that capture the tangible action undertaken by the kids.

Tip: Here’s a chance for a great English assignment for your kids! Individually, in pairs or even as a whole class project, this is a writing context in which the kids can apply the years they have spent learning how to express their thoughts in writing.

3. LIST OF “VIRTUAL MARINERS” FOR DISTRIBUTION OF CERTIFICATES

Include with your documents a list of participating students so they all will receive their own official “virtual mariner’s” certificate.

4. BROADENING VISIBILITY AND RENEWING PERSONAL INVOLVEMENT

We invite you to be creative when the time comes to make your class's tangible action known to the public. Why not start by publishing an article in the school paper, or even...the neighbourhood paper? Encourage the kids to launch a campaign to raise awareness of climate change by setting up a kiosk where information can be posted to introduce the Antarctic Classroom to other classes. Give them the task of publicizing their environmental action. They will certainly rise to the occasion!

The crew of the Antarctic Mission will be delighted to hear about a new environmental action that your kids have decided to undertake. Tell us about it! We'll try to find another time to get in touch. Who knows? Maybe they'll get another chance to talk about their project with mission leader Jean Lemire, live from the Antarctic Peninsula! The invitation has been extended! Until then, here's wishing you fair winds and clear sailing!

From the Crew of the Antarctic Mission