

Teacher Field Experience: Biology in the Bahamas

The Teacher Field Experience (TFE) is an immersive professional development program for educators to participate in scientific research while developing strategies to incorporate both marine content and biological concepts into their classrooms. While staying on board a research vessel, teachers investigate the marine environment, learn about various methods of scientific data collection, how to incorporate inquiry into their teaching and are connected to research and conservation. In this unique program, teachers gain firsthand experience doing science as they conduct their own research project in the Bahamas.



IMPORTANT DATES

Application Deadline: Applications must be completed and postmarked by March 26th, 2010.

Class Dates (Chicago, IL)

Pre-trip June 21-26

Post-trip August 5-7

Field Experience (Bahamas)

July 27-August 3

DESCRIPTION OF PROGRAM

Prior to the field experience, seven days of instruction will be held in the Education Center at Shedd Aquarium. During this time basic concepts and skills of marine biology -- with a focus on coral reef and Caribbean ecology -- will be explored through presentations, hands-on activities, aquarium exploration and laboratory work.

Classroom/Laboratory topics will include:

- General introduction to oceanography
- Physical and chemical properties of the ocean
- Fish and invertebrate biology
- Coral biology and coral reef ecology
- Conservation and invasive species
- Marine algae and botany
- Nature of science and inquiry



Field experience preparation will include:

- Field study techniques and data collection
- Application of scientific method
- Research topic planning and proposal writing
- Snorkel lessons
- Field equipment usage
- Scientific notebooks

Field Experience: *R/V Coral Reef II*

10 teachers will be selected to spend six days around Bimini, Bahamas, and the surrounding islands, on board the *R/V Coral Reef II*, Shedd Aquarium's 85-foot research vessel. Custom-built for the aquarium in 1984, it can accommodate ten participants, two instructors, two captains and a cook. The vessel carries scientific equipment for studying ocean life, two skiffs for investigating shallow waters, and a reference library. Living accommodations include a large salon/dining room, fully equipped galley and double-occupancy cabins with shared bathrooms (all air-conditioned). Hot fresh water and electricity are available at all times. Participants will have the opportunity to visit and explore coral reefs, mangrove channels, turtle grass beds, shipwrecks and several other sites. Much of the time will be spent snorkeling, observing marine life and conducting field projects.





Activities in the Bahamas include:

- Snorkeling (including nighttime)
- Species surveys & identification
- Field study projects
- Meeting local researchers
- Basic boat duties and upkeep
- Journal writing
- Plankton collection & identification
- Underwater photography
- Algae collection
- Geology studies
- Microscope work



Post-trip Classes

Following the field experience, class will resume at the aquarium August 5-7. During this time, teachers will have an opportunity to reflect on the experience, discuss how to incorporate their new knowledge and skills back in the classroom, analyze data, and plan for their final project.

*All participants will be eligible to receive Lane Credit or optional graduate credit from National Louis University.

TRAVEL

Traveling through international waters on the *R/V Coral Reef II* will require each participant to have a current U.S. passport; accepted participants must obtain a passport by June 1.

Note: Participants must make their own travel arrangements to arrive in Miami, FL, by the afternoon of July 27th, and subsequently getting to the boat dock (location to be determined) to board the *R/V Coral Reef II*.



SAFETY

The *R/V Coral Reef II* is a United States Coast Guard approved oceanographic research vessel certified to carry passengers. It is fully equipped with navigational resources, 24-hour radio capabilities and a cellular phone. During water activities, all participants will be accompanied by Shedd instructors and will be required to use the buddy system, to wear snorkel safety vests and to swim within a safe radius of the *Coral Reef II*. Dive flags are displayed on the boat and/or are carried into the water by an instructor. All instructors are CPR and AED certified (the vessel is equipped with an Automated External Defibrillator). Captains are rescue dive masters and have over 45 years of combined experience overseeing the *Coral Reef II*.

FEES

The cost of the program is \$895. This cost covers tuition, textbooks, additional readings, laboratory materials, snorkel equipment (for loan) and room and board while in the Bahamas. This fee does not cover airfare to/from Miami or room and board while in Chicago.

*graduate credit from National Louis University is an additional cost



FUNDING

COSEE Great Lakes Marine Immersion Scholarships - With the generous support of COSEE Great Lakes, we are able to guarantee two - \$500 scholarships for teachers selected to participate in the Teacher Field Experience. If you are interested in being considered for this scholarship, please indicate this on your application. Visit www.coseegreatlakes.net/events/marine_immersion for more information about COSEE Great Lakes and this scholarship opportunity.

In addition, we highly encourage you to seek out additional funding opportunities to offset your expenses associated with this program. Please refer to the *Funding for Teachers* reference sheet we have compiled for your assistance.

BASIC REQUIREMENTS

Applicants must:

- Currently be a K-12th grade teacher
- Possess reasonable swimming skills
- Be able to demonstrate a sincere interest in teaching science
- Have the ability to obtain a valid U.S. passport
- Be willing to participate in a formal interview process if chosen as a finalist
- Be available for the entire duration of the program
- Must be a resident of Illinois, Indiana, Wisconsin, Michigan, or Iowa
- Be eager to maintain a positive attitude
- Be a team player
- Have the endurance to withstand heavy labor/activity

APPLICATION DEADLINE

Applications are to be completed and postmarked by March 26th, 2010. Applications must be mailed to the program coordinator:

Jackie Formoso
Shedd Aquarium-Education Department
1200 South Lake Shore Drive
Chicago, Illinois 60605

Phone: 312-692-3165
Email: jformoso@sheddaquarium.org

Teacher Field Experience: Biology in the Bahamas

APPLICATION DEADLINE

Applications are to be completed and postmarked by March 26th, 2010. All completed application materials must be mailed together to ensure all pieces are received before the deadline. Mail application materials to:

Teacher Programs Coordinator
Shedd Aquarium-Education Department
1200 South Lake Shore Drive
Chicago, Illinois 60605

Phone: 312-692-3165
Email: teacherservices@sheddaquarium.org

AVAILABILITY & ELIGIBILITY

It is important that if selected, you are able to attend all of the pre-trip coursework, the entire duration of the trip, and the post-trip sessions. Please check all that apply.

- I can attend the pre-trip courses June 21-26 at Shedd Aquarium in Chicago, IL.
- I can attend the entire duration of the trip from July 27-August 3 arriving and departing from Miami, FL.
- I can attend the post-trip session August 5-7 at Shedd Aquarium in Chicago, IL.
- I am comfortable living on board a research vessel and sharing a cabin for seven days

PROGRAM FUNDING

Detailed program funding options found on final page of application

APPLICATION CHECKLIST

- Verified availability for all required dates
- Confirmed ability to meet all program fee requirements
- Completed participant application form
- Completed essay questions
- In a sealed, signed envelope: Student reference form and recommendation letter (optional)
- In a sealed, signed envelope: administrator reference form and recommendation letter
- In a sealed, signed envelope: colleague reference form and recommendation letter
- Verification of swimming ability
- Gather all materials and mail them in the same package postmarked by March 26th, 2010.

All completed application materials must be mailed together to ensure all pieces are received before the deadline. It is recommended to contact the program coordinator to confirm receipt of application.

Teacher Field Experience: Biology in the Bahamas

Personal Contact Info:

Name:
E-mail:
Address:
City, State, Zip
Home Phone:
Work Phone:
Mobile Phone:

School Contact Info:

Name:
E-mail:
Address:
City, State, Zip
Work Phone:
Fax number:

School Contact Info:

Name:
E-mail:
Mobile Phone:
Work Phone:

What grade level(s) do you teach?

Primarily, what subjects do you teach?

What science lessons/units do you teach?

How did you learn about the Teacher Field Experience: Biology in the Bahamas program?

What professional development opportunities have you participated in the last two years? (provide brief description)

What experience do you have with teaching about marine environments? (provide brief description)

John G. Shedd Aquarium
TFE 2010 APPLICATION



Which Shedd programs or resources have you utilized? (Check all that apply)

- | | | |
|--|---|--|
| <input type="checkbox"/> Field trips (with K-12 program) | <input type="checkbox"/> Field trips (without K-12 program) | <input type="checkbox"/> Auditorium/Outreach program |
| <input type="checkbox"/> Discovery Boxes | <input type="checkbox"/> Web site | <input type="checkbox"/> Adult programs |
| <input type="checkbox"/> Teacher in-service | <input type="checkbox"/> Shedd Navigators | <input type="checkbox"/> Group overnights |
| <input type="checkbox"/> Teacher workshops | <input type="checkbox"/> Fish Tales Newsletter | <input type="checkbox"/> Family programs |
| <input type="checkbox"/> Educator Open House | <input type="checkbox"/> Summer camps | <input type="checkbox"/> Activity guides |
| <input type="checkbox"/> Other (please describe) | <input type="checkbox"/> SEA (Shedd Educations Adventures) | |

What are your special interests and hobbies?

-
- YES - I would like to be considered for a COSEE Great Lakes Marine Immersion Scholarship of \$500

John G. Shedd Aquarium
TFE 2010 APPLICATION



ESSAYS

On a separate sheet of paper please type a response to the following questions:

1. Give an example of an effective science lesson you've taught. Why was it successful?
2. How do you envision incorporating this experience into your classroom?
3. How will you contribute to this experience?
4. If you could have any other job in the world (other than teaching), what would it be and why?

REFERENCE INFORMATION

Please print the names and phone numbers of the references that have written recommendations for you:

1. Name of student writing recommendation (optional): _____
Last First

Grade level at school: _____

2. Name of administrator writing recommendation: _____
Last First

Position held at school: _____ Phone: _____

3. Name of colleague writing recommendation: _____
Last First

Position held at school: _____ Phone: _____

APPLICANT'S SIGNATURE

Applicant's signature _____ Date _____

John G. Shedd Aquarium
TFE 2010 APPLICATION



ADMINISTRATOR REFERENCE

TO THE APPLICANT:

Please give this form to an administrator or supervisor listed on your application.

Applicant's Name: _____
Last First Middle

Applicant's Signature: _____

TO THE ADMINISTRATOR/SUPERVISOR:

The applicant listed above is applying to the Shedd Aquarium's Teacher Field Experience: Biology in the Bahamas Program. This program is academically challenging and includes an intensive field experience in the Bahamas.

The first week of the program is held at the Aquarium where lectures, labs and discussions introduce basic concepts related to marine science, research techniques and conservation. The second week of the program is spent on board the Aquarium's research vessel where the participants will conduct field experiments and continue the study of marine biology in a hands-on, team-based learning situation.

Please include a separate written assessment of the applicant's qualifications. Indicate the length of time and in what capacity you have known the applicant, and include comments on his or her strengths and weaknesses. If possible, include specific examples. Comments will not be shared with the applicant. This letter of recommendation should appear on official school letterhead and should be enclosed in a sealed envelope with your signature across the seal.

Applicants are required to mail all application materials as a complete package to Shedd Aquarium. If you have any questions, contact the Teacher Programs Coordinator at 312-692-3165 or teacherservices@sheddaquarium.org.

APPLICANT'S PERSONAL CHARACTERISTICS

Please consider each characteristic carefully as each one indicates a quality essential for successful participation in the program. Circle one number for each line.

5=excellent 4=good 3=average 2=below average 1=poor

Self-motivation	5	4	3	2	1
Teamwork skills	5	4	3	2	1
Flexibility	5	4	3	2	1
Responsibility	5	4	3	2	1
Willingness to help others	5	4	3	2	1

ADMINISTRATOR RECOMMENDATION

What is your overall recommendation for this applicant's acceptance into the Teacher Field Experience: Biology in the Bahamas program?

- Recommend very highly
- Recommend
- Recommend with reservations
- Do not recommend

Reference Name: _____
Last First Middle

John G. Shedd Aquarium
TFE 2010 APPLICATION



Administrator's Signature: _____

COLLEAGUE REFERENCE

TO THE APPLICANT:

Please give this form to the *colleague* listed in your application. If you are a 1st or 2nd year teacher, you may substitute an advisor or cooperating teacher for the colleague referral

Applicant's Name: _____
Last First Middle

Applicant's Signature: _____

TO THE COLLEAGUE*:

The applicant listed above is applying to the Shedd Aquarium's Teacher Field Experience: Biology in the Bahamas Program. This program is academically challenging and includes an intensive field experience in the Bahamas.

The first week of the program is held at the Aquarium where lectures, labs and discussions introduce basic concepts related to marine science, biology, research techniques and conservation. The second week of the program is spent on board the Aquarium's research vessel where the students will conduct field experiments and continue the study of marine biology in a hands-on, team-based learning situation.

Please include a separate written assessment of the applicant's qualifications. Indicate the length of time and in what capacity you have known the applicant, and include comments on his or her strengths and weaknesses. If possible, include specific examples. Comments will not be shared with the applicant. This letter of recommendation should be enclosed in a sealed envelope with your signature across the seal.

Applicants are required to mail all application materials as a complete package to Shedd Aquarium. If you have any questions, contact the Teacher Programs Coordinator at 312-692-3165 or teacherservices@sheddaquarium.org.

APPLICANT'S PERSONAL CHARACTERISTICS:

Please consider each characteristic carefully as each one indicates a quality essential for successful participation in the program. Circle one number for each line.

5=excellent 4=good 3=average 2=below average 1=poor

Self-motivation	5	4	3	2	1
Teamwork skills	5	4	3	2	1
Flexibility	5	4	3	2	1
Responsibility	5	4	3	2	1
Willingness to help others	5	4	3	2	1

COLLEAGUE RECOMMENDATION

What is your overall recommendation for this applicant's acceptance into the Teacher Field Experience: Biology in the Bahamas program?

- Recommend very highly
- Recommend
- Recommend with reservations
- Do not recommend

Reference Name: _____
Last First Middle

John G. Shedd Aquarium
TFE 2010 APPLICATION



Signature _____

VERIFICATION OF SWIMMING ABILITY

Applicant's Name: _____
Last First Middle

TFE combines class sessions at the Aquarium and a seven day field experience snorkeling in the Bahamas. In order to be eligible for consideration, participants must be comfortable in deep water and must be able to swim proficiently.

There will be a swim/snorkel check out prior the field experience. It is essential that all participants attend this session. If course instructors determine your swimming ability is not suitable for the nature of the field experience, you will be instructed to complete swim tests and be approved by a certified swim instructor/lifeguard professional.

For further questions about swimming ability, contact the Teacher Programs Coordinator at 312-692-3165.

LEVEL OF ABILITY

Please truthfully complete the following self-assessment of your swimming ability. For your safety and the safety of others, it is important for program facilitators to be aware of each participant's swimming ability and any challenges he or she may face.

	Excellent	Good	Average	Poor
Swim underwater one length of pool (25 yards) taking up to four breaths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tread water (5 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Float on back (2 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swim two lengths of pool (50 yards) any stroke	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

QUESTIONS

1. How often do you swim in a year?
2. When was the last time you went swimming?
3. Have you been swimming in open water before (i.e. a large lake, the ocean, etc.)?

GENERAL PHYSICAL ABILITY

1. How often do you engage in physical activity per week?

John G. Shedd Aquarium TFE 2010 APPLICATION



2. What kind of physical activity are you involved in?

PROGRAM FUNDING FOR TEACHERS

Below you will find a list of suggested sources to research for potential funding to offset the expenses associated with this program. Please note that Shedd Aquarium does not endorse any of these foundations or businesses associated with them but are simply providing them as a reference for your benefit.

[National Education & Environment Partnership](#)

The President's Council on Environmental Quality (CEQ), in partnership with the National Environmental Education & Training Foundation (NEETF), is proud to announce a new program of Environmental Education Teacher Professional Development Awards. This program identifies outstanding K-12 teachers who are environmental educators and/or use the environment as an integrating context for learning for their students. Awardees will receive a Certificate of Merit and an award of \$1,000 to be used for their own professional development.

www.neefusa.org

[Fund for Teachers](#)

The Fund for Teachers (FFT) is a unique foundation whose mission is to enrich the lives of schoolteachers and students by providing outstanding teachers with recognition and opportunities for renewal. Making a difference one teacher at a time, FFT provides funds for direct grants to teachers to support summer learning opportunities of their own design.

www.fundforteachers.org

[Toshiba America Foundation](#)

Toshiba America Foundation contributes to the quality of science and mathematics education in U.S. communities by investing in projects designed by classroom teachers to improve science and mathematics education for students in grades 7 thru 12.

<http://www.toshiba.com/tafpub/jsp/home/default.jsp>

[National Geographic Society Education Foundation Teacher Grants](#)

This year, the Foundation plans to make approximately \$100,000 in grants of up to \$5,000 each to help you—or a group of your peers—make an even greater impact in your classroom, school, district, and/or community through innovative geography education projects.

http://www.nationalgeographic.com/education/professional_development/

[Donors Choose](#)

If you are a public school teacher, DonorsChoose invites you to propose an activity or resource for your students. Please note that teachers do not receive any monies. If a donor funds your proposal, DonorsChoose will purchase and deliver what you requested.

www.donorschoose.org

[COSEE Marine Immersion Scholarships](#)

COSEE Great Lakes has scholarship funds to assist some Great Lakes area teachers in learning about the oceans through experiences sponsored by regional institutions. Scholarship award is contingent upon acceptance into the program. Like other COSEE Great Lakes funding, the support is limited to teachers of grades 4-10, informal educators, and preservice teachers (with advisor approval).

http://www.coseegreatlakes.net/events/marine_immersion Please indicate on your application if you would like to be considered for one of the two - \$500 Marine Immersions Scholarships available to teachers selected to participate in Teacher Field Experience 2010.

John G. Shedd Aquarium
TFE 2010 APPLICATION



*In addition to these potential funding opportunities, some previous participants received professional development funding from their school districts. While this may not be possible in all districts, you are encouraged to inquire about it with your administrator.