

Jennifer A. Collins

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PROFESSIONAL EXPERIENCE

Teacher and School Program Specialist

2008 – present

CONSORTIUM FOR OCEAN LEADERSHIP – DEEP EARTH ACADEMY, Washington DC – *A nonprofit member organization that represents leading oceanographic institutions and manages ocean science research and education programs.*

Develop programs and collaborations that connect educators, students, and public with Integrated Ocean Drilling scientists and science. Design and evaluate science education materials and products that engage users in the process and nature of science. Develop and implement professional development programs, including the *School of Rock Expeditions for Educators* on board the R/V *JOIDES Resolution* (JR). Serve as department's internal evaluator. Manage participation at national and regional science and education conferences and public events.

- ♦ Developed inquiry-based activities for museum events and classroom instruction including, *Investigating Sediments Kit* for smear slide making and microfossil analysis, *Cretaceous Impact kit*, to reconstruct mass extinction event evidence using manipulatives, and *Core Retrieval and Analysis* interactive to simulate ocean drilling and core interpretation
- ♦ Designed and implemented a five-year assessment and annual follow-up assessments for the *School of Rock Expeditions for Educators* program, live videobroadcast efforts, materials utilization, and teacher workshops
- ♦ Implemented three new programs within the last 12 months including; *Mini-Grants* program for scientist and educator collaborations, *Mobil JOIDES Resolution* event for cyber school students, and *Regional Rocks* workshop for local educators
- ♦ Created *How Science Works-Discovering Life Below the Seafloor* poster and activity in collaboration with Center for Dark Energy Biosphere (C-DEBI) and Museum of Paleontology, UC Berkeley (UCMP) and *How Science Works* iTunes U course with California Academy of Sciences and (UCMP)

Curriculum Writer

2010 – 2012

UNIVERSITY OF KANSAS - EUTELEOST TREE OF LIFE PROJECT, Washington DC – *A grant project to design educational materials and resources highlighting the science associated with assembling and utilizing the Euteleost tree of life.*

Translated current Euteleost research into inquiry-based curriculum that uses authentic data and mirrors actual scientific process.

- ♦ Surveyed literature and interviewed scientists and graduate students to identify engaging and tangible science research that aligns with science standards and principles
- ♦ Translated *Deep-sea mystery solved: astonishing larval transformation and extreme sexual dimorphism unite three fish families* by Johnson, et al. (2009) into comprehensive activity and teacher guide that utilizes morphological and molecular lines of evidence

Family Guide and Educator Guide Writer

2008-2009

NATIONAL MUSEUM OF NATURAL HISTORY, Washington DC – *National museum with extensive collections and exhibits.*

Created visitor guides with input from scientists, exhibit and education staff

- ♦ Produced the *Sant Ocean Hall Family Guide* that facilitates discussions around selected exhibits
- ♦ Produced the *Sant Ocean Hall Educator's Guide* that provides guidance on how to investigate the hall using student-generated questions and differentiated readings about NMNH staff research

Science Teacher 2005-2008
SOUTH COUNTY SECONDARY SCHOOL, Lorton, VA – *A secondary school in the Fairfax County public school district.*

Taught life and physical science and served on school-wide committees.

- ◆ Implemented a Shad-release program for students
- ◆ Conceived and implemented *Morning at the Museum* family event and *Teaching Biodiversity* teacher workshop at the National Museum of Natural History
- ◆ Conceived and implemented an after-school *Mindset* program for at-risk students

Teacher on Special Assignment 1998-2000
UNIVERSITY OF CALIFORNIA MUSEUM OF PALEONTOLOGY, Berkeley, CA – *A research museum with extensive education programs and resources.*

Collaborated with scientists and graduate students to develop curriculum, assessments, and teacher guides. Provided professional development training for teachers.

- ◆ Produced seven online learning modules for *Explorations Through Time* including; *Understanding Geologic Time, Getting Into the Fossil Record, Stories From the Fossil Record, What did Trex Taste Like, Evolution of Flight, Life Has a History*
- ◆ Authored *Anolis Lizards of the Greater Antilles*, an activity that mirrors the work of, and utilizes the data from the research of Kevin de Queiroz (NMNH) and Jonathoan Losos (Harvard)
- ◆ Co-authored chapter for *Making Connections: A Guide to Implementing Science Standards* for the California Department of Education

Science Teacher 1995-1998; 2000-2002
CALIFORNIA PUBLIC SCHOOLS, – *Public schools for middle school and high school students.*

Taught biology, physiology, integrated science, seventh grade life science, sixth grade earth science and served on school-wide committees.

- ◆ Conducted Peer Mediation training for faculty and students
- ◆ Served on Technology Team with duties to support and train faculty
- ◆ Member of Student Assistance Team for at risk students
- ◆ Worked at Oakland Museum to help students develop an ocean-experience website

EDUCATION

Masters of Education ◆ Instructional Technology ◆ National University ◆ San Diego, CA ◆ June 2004

Thesis: *The impact of understanding process and nature of science in understanding evolution*

Teaching Credential ◆ Life Science ◆ National University ◆ San Diego, CA ◆ July 1994

Bachelors of Science ◆ Zoology ◆ University of California ◆ Davis, CA ◆ June 1993

ADDITIONAL ACTIVITIES

- ◆ Core member and unconference organizer for *Coalition on the Public Understanding of Science*
- ◆ Hosted national *Jellyfish Species Naming* contest and facilitated local and national ocean activities as part of the Year of Science 2009 for *Coalition on the Public Understanding of Science*
- ◆ Serve as an Education Advisor for *Understanding Science, Understanding Evolution, and Understanding Global Change* projects
- ◆ Recent talks: *Collaboration efforts between teachers and scientists to develop resources modeled after published scientific research; Expanding the intersection between science and education; Tree Thinking and DNA Barcoding; Bringing Ocean Science to the Classroom; Getting your science out there*
- ◆ Authored the travel blog *An International Adventure in Japan – Cnidarian Tree of Life Project*
- ◆ Have done field work in Nevada, Guam, Palau, Moorea, Japan, Panama, Curacao, Bonaire

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REFERENCES

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