

## **EDWARD J WREN**

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### **TEACHING AND CURRICULUM DEVELOPMENT EXPERIENCE**

#### **HIGH SCHOOL BIOLOGY TEACHER**

**Bronx High School of Science, Bronx, NY**

**September 2010 – September 2019**

- Most recently completed 8 years teaching AP Environmental Science, 7 years teaching Marine Biology, and 5 years teaching Animal Behavior to 10<sup>th</sup>-12<sup>th</sup> grade, academically accelerated, students in a large, nationally ranked, STEM High School.
- Designed AP Environmental Science, Marine Biology and Animal Behavior courses and curricula.
- Taught 9<sup>th</sup> grade Biology and Research Literacy (an introductory course in scientific research methods) for two years each.
- 2018-2019 Sustainability Coordinator: co-founded a very active Green Team, co-wrote, and won nearly \$20,000 in grant money to be used for building energy upgrades, a new recycling program, an urban gardening initiative, and school community awareness programs.
- Prepared 11<sup>th</sup> and 12<sup>th</sup> grade students for National Ocean Sciences Bowl competition.
- Curated the school's diverse animal facility while actively promoting and supporting school-wide use of animals for engaging, humane, observational demonstrations, research, and student socio/emotional expansion.
- Mentored new and seasoned teachers by guiding planning and presentation of engaging and rigorous lessons as well as modeling effective classroom and lab management.
- Regularly asked to represent the school by offering dynamic presentations to groups of visiting adult professionals, parents and potential students.

#### **AP ENVIRONMENTAL SCIENCE PRESENTER**

**National Math and Science Institute for NYC Department of Education**

**February 2014 - Present**

Selected to present AP Environmental Science content in creative, energetic ways to students and teachers from schools identified as "underserved" due to these schools having classroom budget and time constraints. Lessons require that an entire unit is effectively woven into a story that is not only engaging and academically meaningful, but can be shared in an hour and fifteen minutes.

#### **HIGH SCHOOL SCIENCE TEACHER**

**The New York City Lab School for Collaborative Studies, New York, NY**

**September 2008 - June 2010**

- Taught 9<sup>th</sup> through 12<sup>th</sup> grade students in Advanced Biology, Psychology, Chemistry, Health, and Living Environment.
- Designed original and creative curricula to effectively meet the needs of broadly diverse learners in a large classroom.
- Created exciting, technology focused laboratory material to pique student interest and enrich student science experiences.
- Provided further student support through offering individualized instruction, advising clubs and projects, participating in sporting events, and writing recommendations.

#### **MIDDLE SCHOOL SCIENCE TEACHER**

**The Calhoun School, New York, NY**

**September 2001 - June 2008**

- Introduced 5<sup>th</sup> grade physical science and 6<sup>th</sup> grade life science students to scientific phenomena by creating age-appropriate curricula to capture their interests while also developing their academic skills.
- Developed, organized, and ran annual, week-long 6<sup>th</sup> grade trip to Dolphin Camp in the Florida Keys.
- Selected for the following additional service: Committee to develop new pay scale for Calhoun faculty (2002-3), NY State Association of Independent Schools Self-Study Steering Committee (2004-6), Search Committee member for MS Director (2006-7), Middle School Intersession Curriculum Development Committee (winter 2007 and 2008), 5<sup>th</sup> and 6<sup>th</sup> Grade Extended Overnight Trip Coordinator (spring 2006, 2007, 2008). NYSAIS re-accreditation assessment committee member (2008).
- Mentored and advised nine students annually through individual weekly meetings and group activities.

#### **TEACHING AWARDS:**

**Math for America Master Teacher Fellowship**

**September 2013 – September 2019**

- Facilitate professional learning teams, participate in STEM focused learning experiences and engage in MFA community learning opportunities.

**Teaching Opportunity Fellowship Program Scholarship**

**June 2008 - June 2010**

## **ALTERNATIVE EDUCATION EXPERIENCE:**

### **SCIENCE INSTRUCTOR**

**Exxon Mobile Bernard Harris Summer Science Camp at City College**

**July 2012 and July 2013**

- Taught inquisitive, academically talented and financially disadvantaged 5<sup>th</sup>-8<sup>th</sup> grade youth, in an urban program focused on wetlands preservation and hydroelectric power generation.
- Helped design an engaging, academically rigorous curriculum within challenging space, limited materials, and time constraints.

### **2007 TEACHER TUTOR AND PARTICIPANT- TEACHER OUTREACH PROGRAM**

**Rockefeller University, New York, NY**

**Summer 2005-2007**

- Selected by Outreach Program Director to act as a liaison between participating high school students, teachers and their host laboratories.
- Assisted students and teachers with poster presentations and homework assignments.
- Charged with seeking out and assisting students and teachers struggling with assigned science projects.

### **HEAD TEACHER**

**Hollingsworth Science Camp, New York, NY**

**Summer 2003**

Developed a geology program that provided an exciting and dynamic educational experience to advanced 3<sup>rd</sup> and 4<sup>th</sup> grade students by establishing a high-energy learning and recreational environment.

### **CHILDREN'S EDUCATION LEADER**

**Henry Doorly Zoo, Omaha, NE**

**April 2000 - November 2000**

Taught animal anatomy, physiology and behavior to children aged 5-14 by encouraging their involvement with the learning process and playing educational games.

## **RESEARCH EXPERIENCE:**

**Graduate: Creighton University, Omaha, NE July 1998 - October 2000**

- Investigated hormonal salt balance regulatory mechanisms in Antarctic and Maine fish.
- Developed a new experimental apparatus, bioassays, and multiple protocols.
- Wrote and co-wrote national and local grants.

**Undergraduate: Long Island University Southampton College, Southampton, NY May 1997 - July 1998**

- Conducted studies comparing mitochondrial DNA of Long Island green sea turtle (*Chelonia mydas*) feeding populations and Floridian and Costa Rican green sea turtle nesting populations.
- Performed experiments to isolate the glucose 6-phosphate isomerase gene from the bay scallop *Argopecten irradians*.
- Responsible for laboratory assistance to sophomores and juniors as well as material set up for marine ecology and marine-based comparative physiology labs.

**As a Teacher: Rockefeller University, New York, NY July 2005-2007 to September 2005-2007**

- Performed experiments to assist in characterizing the nuclear pore function of the yeast genes *HEH1* and *HEH2*, in the Nobel Prize winning laboratory of Dr. Gunter Blobel.
- Acknowledged for said participation in the following publication:  
King MC, Lusk CP, Blobel G. (2006) Karyopherin-mediated import of integral inner nuclear membrane proteins. *Nature*. 442:1003–1007.

## **EDUCATION:**

**MA, 7-12 Biology Education: Teaching Opportunity Program**

Hunter College, New York, NY, June 2010

TOP is a highly selective graduate scholarship program that prepares Biology teachers for the New York City Public Schools.

**Professional Certification received August 2010**

**Graduate Studies, Renal Physiology** Creighton University, Omaha, NE, July 1998 to October 2000

**BS, Marine Science** Long Island University Southampton, Southampton, NY, May 1998.