

World Science Academy 2017-2018

| Date | Neuroscience | Earth & Marine Science | General |
|-----------------------------------|--|---|---|
| Fall 2017 (October & November) | <p>Understanding the Brain: Anatomy and dissection workshop</p> <p>Time: 90 minutes Location: NYU Medical Center</p> | <p>Understanding the Marine Science: Introduction to the World's Water Remote sensing/climate change workshop</p> <p>Time: 90 minutes</p> | <p>Understanding Science: Workshops offered in astronomy, physics, chemistry, genetics and forensics</p> <p>Time: 90 minutes</p> |
| January 2018 | <p>Research Project Phase 1:</p> <ul style="list-style-type: none"> Intro to research with NYU Center for Neural Science's Wendy Suzuki Hands-on experiments with EEG headsets and conducting exercise Instructions for at home data analysis and collection <p>Time: 2 hours</p> | <p>Research Project Phase 1:</p> <ul style="list-style-type: none"> Intro to research with Hudson River Environmental Conditions Observing System (HRECOS) Understanding data analysis. Instruction for collection data at home <p>Time: 2 hours</p> | <p>World Science U Course: Students will select one of many online courses to take over the course of early Winter. Subjects range from free will, consciousness, and neuroscience to dark matter and gravitational waves.</p> <p>Time: 2 hours (over 3-4 at-home or in class sessions)</p> |
| January-March 2018 | <p>Research Project Phase 2: Data Collection and Analysis</p> <ul style="list-style-type: none"> Students conduct their own exercise and brain studies to collect data from friends, family. <p>Time: 4 hours (over 8 weeks)</p> | <p>Research Project Phase 2: Data Collection and Analysis</p> <ul style="list-style-type: none"> Students collect data from the HRECOS system and analyze a long term database for changes to the ecosystem. <p>Time: 4 hours (over 8 weeks)</p> | <p>Research Project Assistance:</p> <ul style="list-style-type: none"> Assist WSA classmates with their research, participate in projects <p>Time: 1 -2 hours</p> |
| March 2018 | <p>Lab Tours Neuroscience Lab Tours at NYU, Columbia, CUNY ASRC</p> <p>Time: 2 hours</p> | <p>Lab Tours Environmental Science lab tours at NYU, Columbia, and CUNY ASRC</p> <p>Time: 2 hours</p> | <p>Lab Tours Lab Tours in physics, genetics, chemistry, and engineering at NYU, NYU Tandon, CUNY ASRC, & Columbia</p> <p>Time: 2 hours</p> |
| Spring 2018 | <p>Research Project Phase 3: Reporting</p> <p>April: Students present research findings. Dr. Suzuki will discuss her own research findings.</p> | <p>Research Project Phase 3: Training</p> <p>May: Marine Science Training Day for Great Fish Count</p> | <p>Research Project Assistance: Great Fish Count Training</p> <p>Students can participate in the Great Fish Count training along with Earth & Marine Science students.</p> |

| | Time: 2 hours | Time: 3 hours | Time: 3 hours |
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| April 2018 | Pioneers in Science Curriculum: Students and teachers will research a pioneer in science to prepare for a live event during the World Science Festival in June. Time: 2 hours (over 4 weeks) | | |
| Thursday, May 31 or Friday, June 1, 2018 | Pioneers in Science Students and teachers come together in New York (and online with others worldwide) to interact with a renowned scientist to ask questions about his/her research, science, and life. Time: 3 hours during the school day. | | |
| May 30-June 3, 2018: 11th Annual World Science Festival | Sunday, June 3: Ultimate Science Sunday: Exercise Workshop <ul style="list-style-type: none"> • Students help run an exercise workshop | Saturday, June 2: Great Fish Count <ul style="list-style-type: none"> • Using training assist scientists on site with the collection, identification, and count of fish. | Saturday June 2 and/or Sunday June 3 <ul style="list-style-type: none"> • Science communication volunteers at Apprentice Programs |

All students participate in Pioneers in Science as part of the culminating activity for all three tracks.

Please send a list of students with their track selected and teachers names to the Education Team at education@worldsciencefestival.com by October 10th. Waivers are attached in this email and will be due no later than the first Workshop on October 24th. Waivers can be sent via email, mail, or in person. Each student must have a waiver signed to participate.

Feel free to contact the team at education@worldsciencefestival.com or 917-281-5755 with your questions.

Tips for Selecting Students:

Educators should look for students with a strong interest in science, and learning through the eyes of working scientists. There are no previous course requirements. In most cases, students will be able to select topics that most interest them. Participants must make a commitment to try to attend most of the programs, which are offered directly after school.