

The following is an official and final list of Division B events for the 2020 Regional Science Olympiad Competition at FAU to be held on February 29, 2020. However, an event may be cancelled at any time. It is our intention to notify all participants by January 1, 2020 of any cancelled events. If an event is not covered by an event supervisor, any event may be cancelled in the week leading up to the competition.

Blue = Lab based events Red = Pre-built events Black = Research based events

2020 Events - Division B

Biology

1. Anatomy & Physiology – Teams will be tested on their knowledge of anatomy and health concepts including skeletal, muscular, and integumentary systems.
2. Disease Detective – Students will use their investigative skills in the scientific study of disease, injury, health and disability in populations or groups of people.
3. Heredity – Participants will solve problems and analyze data or diagrams using their knowledge of the basic principles of genetics
4. Ornithology – This event will test knowledge of birds.
5. Water Quality – Participants will be assessed on their understanding and evaluation of estuary and marine environments.

Earth Science

1. Dynamic Planet – Teams will use process skills to complete tasks related to oceanography.
2. Fossils – Teams demonstrate their knowledge of ancient life by completing selected tasks at a series of stations.
3. Meteorology – Teams will use science process skills to demonstrate a multidisciplinary understanding of the Earth systems and anthropogenic factors that influence world climate. Focus on severe storms.
4. Road Scholar – Requires the accurate interpretation and understanding of various map features using a variety of road maps, topographic maps, internet-generated maps, or satellite/aerial images.
5. Reach for the Stars – Students will demonstrate an understanding and knowledge of the stars, constellations, and deep sky objects.

Chemistry

1. Crime Busters – Given a scenario, a collection of evidence, and possible suspects, students will perform a series of tests. The test results along with other evidence will be used to solve a crime.
2. Food Science – This event requires students to complete lab investigations and bring that log book to competition. On the day of the tournament, teams will complete both test and lab activities related to the topic of pH and fermentation.

Physics

1. Circuit Lab – Participants will complete tasks and answer questions about electricity and magnetism.
2. Density Lab – Participants compete in activities and answer questions about mass, density, number density, area density, concentration, pressure, and buoyancy.
3. Machines – Teams must construct a homemade device (it must be a first-class lever) to determine the ratios of unknown masses. Competitors will use their device and take a written test on simple machines such as levers, pulleys, wheels and axles, inclined planes, and wedges.

Technology/Building

1. Boomilever – Prior to the competition, teams will design and build a Boomilever meeting requirements specified in these rules to support a minimum load and achieve the highest structural efficiency.
2. Elastic Launched Glider – Prior to the tournament, teams design, construct, and test elastic-launched gliders to achieve a maximum time aloft.
3. Mission Possible – Participants design, build, test, and document a Rube Goldberg ® – like device that completes a required action
4. Mousetrap Vehicle – Prior to the competition, teams design, build, and test a vehicle using one or two snap mousetraps as its sole means of propulsion to push a paper cup forward, reverse direction, and stop as close as possible to a target point.

Inquiry/Nature of Science

1. Experimental Design – Given a set of unknown objects, teams will design, conduct, analyze and write-up an experiment.
2. Game On – The event will determine a team’s ability to design and build an original computer game using the program Scratch incorporating the scientific theme identified by the event supervisor.

2020 Game On Theme: Climate Change

3. Ping Pong Parachute – Teams must design and build a bottle rocket and a parachute for a ping pong ball. When the ball and parachute are launched off the top of a bottle rocket, the ping pong must stay in the air as long as possible.
4. Write It/Do It – A technical writing exercise where students write a description of a contraption and other students will attempt to recreate it using only the written description.

Trial Event (the decision as to whether or not to offer this trial event has not yet been made)

1. Solar Power
2. Indoor Ag - Look for details soon.