

San Ramon Valley Science Olympiad 2022/23 Event Rules/Guidelines

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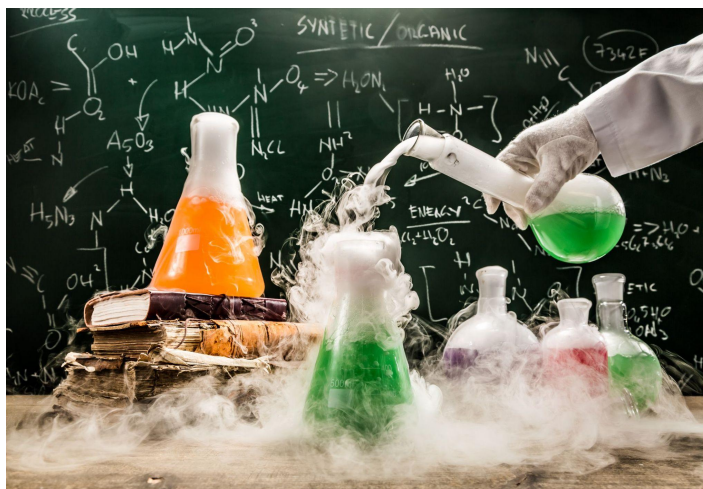
We've Got Chemistry

Description:

This event will consist of a written test containing both MCQ and FRQ questions in which contestants will use their knowledge of chemistry to answer questions regarding the properties, composition, and structure of elements and compounds and how they can change.

Concepts:

1. States of Matter
2. Atoms
3. Reading the Periodic Table
4. Periodic Trends
5. Periodic Families
6. Reactions
7. Protons, Electrons & Neutrons
8. Ions and Isotopes
9. Chemical Bonds



Number of Participants: 2

Approximate Time: 30 minutes

The Competition:

Every team will be given an answer sheet and a periodic table. Team members may consult with each other during the test. Only one answer for each question will be accepted. Team members will answer 15 multiple choice questions and 5 free response questions in one sitting. Questions will be given in a test booklet.

Scoring:

At the end of the testing period, the questions and answer sheet will be collected from those teams who have not turned in their responses. Ties will be broken through the FRQ score.

Resources:

Khan Academy: <https://www.khanacademy.org/science/chemistry>

Note: Study the sections Atoms, Compounds, and Ions, More about Atoms, More about molecular composition, Electronic Structure of Atoms, Periodic Table, Chemical Bonds, and States of Matter

Chem4Kids: <http://www.chem4kids.com/map.html>

ThoughtCo: <https://www.thoughtco.com/chemistry-vocabulary-terms-you-should-know-604345>

Practice Test: <https://forms.gle/YdxmqRT7oBX5qLFp9>

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Food for Thought and Energy

Description:

This event will consist of a written test containing both MCQ and FRQ questions in which contestants will use their knowledge about atoms and bonds to answer questions regarding the structure and function of biological macromolecules and food groups.

Concepts:

1. Proteins
2. Carbohydrates
3. Lipids
4. Nucleic Acids
5. Food groups
6. Structure
7. Function



Number of Participants: 2

Approximate Time: 30 minutes

The Competition:

Every team will be given an answer sheet. Team members may consult with each other during the test. Only one answer for each question will be accepted. Team members will answer 15 multiple choice questions and 5 free response questions in one sitting. Questions will be given in a test booklet.

Scoring:

At the end of the testing period, the question and answer sheets will be collected from those teams who have not turned in their responses. Ties will be broken through the FRQ score.

Resources:

Amoeba Sisters: <https://www.youtube.com/watch?v=YO244P1e9QM>

Chem4kids: <http://www.chem4kids.com/map.html> (carbohydrates, lipids, nucleic acids, proteins, amino acid structure)

Textbook:

<https://drive.google.com/file/d/14xqxCUfusSjuMEvvLoai8PoRXgerMBea/view?usp=sharing>

Practice Test: <https://forms.gle/JWj8t5zhTTEn8MXT6>

Weather or Not

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Description:

This event will consist of a written test containing both MCQ and FRQ questions in which contestants will use their knowledge about environmental phenomena to answer questions regarding the Earth, water, weather, and related processes.

Concepts:

1. Weather terms
2. Water Cycle
3. Evaporation, Condensation, Vaporization, Precipitation
4. Water Systems
5. Energy
6. Weather Instruments
7. Storms / Weather Phenomenon
8. Water Resources



Number of Participants: 2

Approximate Time: 30 minutes

The Competition:

Every person will be given an answer sheet. Only one answer for each question will be accepted. Each person will answer 15 multiple choice questions and 5 free response questions in one sitting. Questions will be given in a test booklet. Students will be tested on their ability to answer free-response-question and multiple-choice-questions regarding the concepts covered.

Scoring:

At the end of the testing period, the questions and answer sheet will be collected from those teams who have not turned in their responses. Ties will be broken through the FRQ score.

Resources:

Terms: <https://www.weatherwizkids.com/weather-words.htm>

Article: https://www.ducksters.com/science/earth_science/weather_glossary_and_terms.php

Practice Test: <https://forms.gle/rJAO36Abwam3TLOM7>