

# SCIENCE OLYMPIAD 2017-18 STUDENT APPLICATION



Name \_\_\_\_\_ Grade \_\_\_\_\_

Period 1 Teacher \_\_\_\_\_

Period 4 or 5 Teacher (not lunch) \_\_\_\_\_

We are very happy that you are considering joining the Science Olympiad team this year! We will be meeting one day each week (usually Tuesday's) *from 2:50 – 3:50pm* to prepare for TWO invitational tournaments, one regional tournament, and the state competition. Practices are flexible, you are encouraged to attend, but much of your competition preparation can be done according to your own schedule. **Other commitments** (sports, dance, clubs, tutoring...) **will not prevent you from participating**, talk to us and we'll make it work for you!

<u>Event:</u>	<u>Date:</u>	<u>Are you available to attend?</u>
<i>Paragon Invitational</i>	<i>November 4, 2017</i>	<i>Yes / No / Unsure</i>
<i>Casteel Invitational</i>	<i>January 20, 2018</i>	<i>Yes / No / Unsure</i>
<b>*Regional Tournament (Surprise):</b>	<b>February 17, 2018</b>	<b>Yes / No / Unsure</b>
<b>*State Tournament (ASU):</b>	<b>April 7, 2018</b>	<b>Yes / No / Unsure</b>

**\*\*All are welcome to participate in the club, but to earn a place on the Varsity team, you MUST commit attend at least **one invitational tournament** and *both* the **regional and state** tournaments listed above. Circling YES above indicates that you have discussed and added this date to your family calendar and will not have conflicts come up later affecting your participation in the event.**

**Plan on attending our FIRST MEETING on August 29th after School!!!!**

**\*\*Participation requires a \$150 sports fee covering registration, materials, and SO competition manual\*\*  
(Checks payable to Mountainside Middle School, Tax Credit eligible)  
**(Fee is non-refundable)****

To reserve you place on the team:

- 1) Read and fill out this application to the best of your ability
- 2) Bring check made out to MMS and **turn it in to the front office!**
- 3) Return this application to Mr. Reinhart or Mrs. Batson before **August 29, 2017.**

1-3) Review the events on the attached State Events Form. What 3 are you most interested in this year?

1<sup>st</sup> choice: \_\_\_\_\_  
Why? \_\_\_\_\_

2<sup>nd</sup> choice: \_\_\_\_\_  
Why? \_\_\_\_\_

3<sup>rd</sup> choice: \_\_\_\_\_  
Why? \_\_\_\_\_

4) Describe a personal achievement that you are proud of:

5) Use the space below to describe why you want to be a part of the Science Olympiad team. Include any experience you may have, how you might contribute to the team, and how you may benefit from the opportunity.

**Parents:** We need your help. Please let us know if you would be interested in volunteering or know of someone who may be able to volunteer in any of the following areas:

Event Coach/Student Mentor:

Share personal knowledge to help teams of students prepare for a specific event (see event list).

Business Sponsor:

Monetary or gift card donations for awards during STATE Tournament

Snacks/Drinks Sponsor:

Provide or organize the collection of healthy snacks and water/drinks for team members during competitions.

# 2017-18 State Science Olympiad Events:

\*Indicates NEW this year!

**ANATOMY AND PHYSIOLOGY** Understand the anatomy of the human body systems: respiratory, digestive and immune.

\***BATTERY BUGGY** Teams will construct a vehicle that uses electrical energy as its sole means of propulsion, quickly travels a specified distance, and stops as close as possible to the Finish Point.

**CRIME BUSTERS** Given a scenario, a collection of evidence, and possible suspects, students will perform a series of tests that along with other evidence will be used to solve a crime.

**DISEASE DETECTIVES** Participants will use investigative skills in the scientific study of disease, injury, health and disability in populations or groups of people with a focus on Food Borne Illness.

**DYNAMIC PLANET** Participants will demonstrate an understanding of the large-scale processes affecting the structure of Earth's crust (Tectonics).

**ECOLOGY** Participants will answer questions involving content knowledge and process skills in the area of ecology and adaptations in featured North American biomes.

**EXPERIMENTAL DESIGN** This event will determine a participant's ability to design, conduct and report the findings of an experiment conducted on site.

**FAST FACTS** Teams will provide terms that begin with a given letter and match given science categories to fill in a grid.

\***HERPETOLOGY** This event will test knowledge of amphibians and reptiles.

**HOVERCRAFT** Participants will be tested on their knowledge of classic mechanics and related topics as well as their ability to construct a self-propelled air-levitated vehicle that moves down a track.

**METEOROLOGY** Participants will use scientific process skills to demonstrate an understanding of factors that influence world climate and use of models to understand/estimate impacts of different changes.

**MICROBE MISSION** Teams will answer questions, solve problems and analyze data pertaining to microbes.

\***MYSTERY ARCHITECTURE** At the beginning of the event, teams will be given a bag of building materials and instructions for designing and building a device that can be tested.

**OPTICS** Teams must participate in an activity involving positioning mirrors to direct a laser beam towards a target and are tested on their knowledge of geometric and physical optics.

**\*POTIONS AND POISONS** This event is about chemical properties and effects of specified toxic and therapeutic chemical substances, with a focus on household and environmental toxins or poisons.

**ROAD SCHOLAR** Participants will answer interpretive questions that may use one or more state highway maps, USGS topographic maps, Internet-generated maps, a road atlas or satellite/aerial images.

**ROCKS AND MINERALS** Teams will demonstrate their knowledge of rocks and minerals.

**\*ROLLER COASTER** Prior to the competition, teams design, build, and test a roller coaster track to guide a vehicle that uses gravitational potential energy as its sole means of propulsion to travel as close as possible to a target time.

**\*SOLAR SYSTEM** Students will demonstrate an understanding and knowledge of the geologic characteristics and evolution of the Earth's moon and other rocky bodies of the solar system.

**\*THERMODYNAMICS** Teams must construct an insulated device prior to the tournament that is designed to retain heat and complete a written test on thermodynamic concepts.

**TOWERS** Prior to the competition, teams will design and build a Tower meeting requirements specified in the rules to achieve the highest structural efficiency.

**\*WRIGHT STUFF** Prior to the competition teams design, construct and test free flight rubber-powered monoplanes to achieve maximum time aloft.

**WRITE IT DO IT** One student will write a description of an object and how to build it, and then the other student will attempt to construct the object from this description.