North Dakota State Science Olympiad

Saturday • April 13 • 2019

SCIENCEOLYMPIAD™

Exploring the World of Science

Sponsored by the College of Science and Mathematics
The NDSU College of Science and Mathematics would like to offer a special thank you to these organizations for supporting K-12 science, math, and engineering events like the State Science Olympiad.

NDSU - College of Science and Mathematics
NDSU College of Engineering
NDSU – Dining and Catering
NDSU – Department of Chemistry
NDSU – Computer Science Department
FM Convention and Visitors Bureau
North Dakota Science Olympiad Program
April 13, 2019

Registration 7:30 - 8:00

Opening Ceremonies 8:00 - 8:30
    Opening Remarks: Scott Wood
        Dean - College of Science and Mathematics
    Announcements: Scott Pryor
        Associate Dean - College of Engineering

Science Olympiad Events 8:45 - 3:05

Lunch – Memorial Union
- Memorial Union 1st Floor - Union coffee 8am-2:30pm
- Memorial Union Basement - Hoagie Hut 10:30am-1:30pm
- Memorial Union Basement - Pizza Express 10:30am-1:30pm
- Memorial Union Basement - Burgers @ the U 10:30am-1:30pm
- Memorial Union Basement - Chopped 10:30am-1:30pm

Free Time for Teams 3:05 - 3:45

Awards Ceremony 3:45 - 5:00
    Individual and Team Awards
    Class B Trophies
    Class A Trophies
    Overall Division Trophies

Science Olympiad
Exploring the World of Science
General Rules

Revised by the Science Olympiad Rules Committee Chairs and Executive Board, July 2014 (note changes in bold)

The goal of competition is to give one's best effort while displaying honesty, integrity, and good sportsmanship. Everyone is expected to display courtesy and respect (see Science Olympiad Pledges below). Teams are expected to make an honest effort to follow the rules and the spirit of the problem (not interpret the rules so they have an unfair advantage). Failure by a participant, coach, or guest to abide by these codes, accepted safety procedures, or rules below, may result in an assessment of penalty points or, in rare cases, disqualification by the tournament director from the event, the tournament, or future tournaments.

1. Actions and items (e.g., tools, notes, resources, supplies, electronics, etc.) are permitted, unless they are explicitly excluded in the rules, are unsafe, or violate the spirit of the problem.

2. While competing in an event, students may not leave without the event supervisor's approval and must not receive any external assistance. All electronic devices capable of external communication (including cell phones) must be turned off, unless expressly permitted in the event rule and left in a designated spot if requested.

3. Students, coaches and other adults are responsible for ensuring that any applicable school or Science Olympiad policy, law or regulation is not broken. All Science Olympiad content (e.g., policies, requirements, clarifications, FAQs, etc. on soinc.org) must be treated as if it were included in the printed rules.

4. All pre-built devices presented for judging must be constructed, impounded, and operated by one or more of the 15 current team members unless stated otherwise in the rules. If a device has been removed from the event area, appeals related to that device will not be considered.

5. Officials are encouraged to apply the least restrictive penalty for rules infractions. Event supervisors must provide prompt notification of any penalty, disqualification or tier ranking.

6. State and regional tournament directors must notify teams of any site-dependent rule or other rule modification with as much notice as possible, ideally at least 30 days prior to the tournament.

Any problems or questions about rules and procedures must be submitted to Joe Latimer by phone at 701-219-3181.
CAMPUS MAP NORTH DAKOTA STATE UNIVERSITY

R12 145  A. Glenn Hill Center
N2  119  AES Greenhouse
S9  14   Agricultural and Biosystems Engineering
S13 10   Alba Bales House
T13 106  Alumni Center, Harry D. McGovern
K2  46   Animal Nutrition and Physiology Center
V9  69   Askana Hall (Reineke Fine Arts Center, Theatre NDSU)

142  Barry, Richard H., Hall (812 2nd Ave N) (Business, Agribusiness and Applied Economics, Center for Professional Selling and Sales Technology, ND Trade Office)
E3  139  Batcheller Technology Center
P12 20   Benton/Bunker Fieldhouse (Athletics, HINES, ROTC)
I8  105  Biosciences Research Laboratory
V9  110  Bison Block I
T13  3   Ceres Hall (Admission, Career Center, Counseling, Customer Account Services, Financial Aid and Scholarships, Registration and Records, TRIO Programs)

P10 66   Civil and Industrial Engineering
P10  94  Construction Management Engineering
I11  49   Dacotah Field
P11 18   Dolve Hall (Mechanical Engineering)
R9  15   Dunbar Laboratories (Chemistry)
R11  7   E. Morrow Lebedeff Hall (Human Development and Education)
Q11  84  Elky Hall
Q10 65   Electrical and Computer Engineering
J3  79   Ellig Sports Complex
Q11 64   Engineering
Q10 63   Engineering Center

Equine Center (3 miles west of campus on 19th Ave N)

E10 122  Fargodome
Q7  70-A  Gate City Bank Auditorium
R9  17   Geosciences
V14 140  Graduate Center
S7  28   Harris Hall (Cereal Science, Food Science)
R7  87   Hastings Hall (Herbarium)
T8  22   Heating Plant
S8  26   Hultz Hall (Animal Science, Entomology, Range Science)
R4  118  Johansen Hall (Seed Research, State Seed Dev.)
G4  135  John Deere Electronic Solutions
R11  83  Katherine Kilbourne Burgum Family Life, 4-H Center (Education, Office of Teaching and Learning)

144  Klai Hall (711 2nd Ave N) (Architecture and Landscape Architecture)
S9  5    Ladd Hall (Chemistry)
V10 12   Library (Disability Services)

P8  78   Loftsgard Hall (Plant Sciences)
T7  29   Lord and Burnham Greenhouses
R14 X10  Lutheran Student Center
R6  32   Maintenance Buildings
S11  6   Memorial Union (Food Court, Gender and Sexual Diversity - LGBTQ, International Student and Study Abroad Services, Multicultural Programs, NDSU Bookstore, One Stop)
U9  21   Minard Hall (Arts, Humanities and Social Sciences)
S8  23   Morn Hall (Ag Communication, Agricultural Administration, Print and Copy Services, Statistics)
U8  16   Music Education Building (Festival Concert Hall, Reineke Fine Arts Center)
A12 126  NDSCS Fargo
K8  123  Newman Outdoor Field
T7  93   Northern Crops Institute
S5  120  Northern Crops Science Laboratory
U11  1   Old Main (Administration, Student Affairs, University Relations)
L2  95   Parking Office
T5  33   Plant Sciences Greenhouse
U6  71   Potato Research-Pesticide Storage
W5  128  Prairie Hall (Publications Services, Center for Social Research)
U13  100  President’s House
U11  11   Putnam Hall (Criminal Justice and Public Policy, Graduate School)
R8  25   Quentin Burdick Building (Computer Network, Computer Science, Industrial Agriculture, Information Technology Services, Upper Great Plains Transportation Institute)

127  Renaissance Hall (650 NP Ave) (Architecture and Landscape Architecture, Tri-College University, Visual Arts)

G6  131  Research 1
E6  132  Research 2
E4  130  Research and Technology Park
N9  59   Residence Dining Center (NDSCU Dining)
T7  60   Residence Life Facility Services
P5  85   Robinson Hall (Veterinary Technology)
I12  72   Sanford Health Athletic Complex/ Scheels Center (Athletic Administration, Athletic Media Relations)
O5  86   Service Center, Pilot Plant
A14 117  SGC Building (Family Studies Institute, Human Resources/Payroll, Nursing)
J10 136  Shelly Ellig Indoor Track and Field Facility
P8  34   Shepperd Arena
T10 13   South Engineering (Physics)
Q7  70   Stevens Hall (Natural Sciences)
W14 X06  St. Paul’s Chapel (Newman Center)
O9  52   Sudro Hall (Pharmacy, Allied Sciences)
T6  81   Sugar Beet Research
D1  133  Technology Incubator
R7  31   Thorson Maintenance Center (Emergency Support Technologies, Facilities Management, Telecommunications)
U6  75   University Police and Safety
Q6  82   Van Es Hall (Microbiological Sciences, Vet Science)

Veterinary Diagnostic Laboratory (4035 19th Ave N)
P7  37   Waldron Hall (Agriculture, Soil Testing Lab)
Q4  50   Wallman Wellness Center (Campus Recreation/Imtramural, Student Health Service)
O8  53   Walster Hall (Agriculture)

West Building (3551 7th Ave N) (Center for Heritage Renewal, Health Sciences Library, NDSU Archives)
M8  80   West Dining Center (ACE Tutoring, Student Success Programs)
P7  36   Woldakas Laboratory (Com Seed House, Plant Sciences)

HOUSING UNITS
G14 160  Apartment 1701
M12  43  Bison Court (East)
M12  44  Bison Court (West)
V12  56  Burgum Hall
M7  159  Cater Hall
R12  8   Churchill Hall
S11  9    Dinan Hall
M10  58  Johnson Hall
N4  101  Mathew Living Learning Center
D15  114  Niskanen Expansion
E14  88  Niskanen Hall
N7  77   Pavek Hall
M10  55  Reed Hall
M7  76   Seim Hall
M8  67   Severson Hall
N13  42  Stockbridge Hall
N8  68   Thompson Hall
F15 166  University Village
N10  57   Weible Hall (North and South)

FRATERNITY AND SORORITY HOUSES
T15 X09  Alpha Gamma Delta
R13 X11  Alpha Gamma Rho
V15 X07  Alpha Tau Omega
S14 X17  Delta Upsilon
V12 X05  FarmHouse
S14 X16  Kappa Alpha Theta
S14 X15  Kappa Delta
Q14 X13  Kappa Psi Pharmaceutical Fraternity
W6 X02  Sigma Alpha Epsilon
T14 X18  Sigma Chi
V15 X19  Sigma Nu
V11 X03  Sigma Phi Delta
W11 X04  Tau Kappa Epsilon
R13 X12  Theta Chi
Something to Keep in Mind
Students, Coaches, Parents, and Event Supervisors

1. This is a Student Competition
2. These are Kids
3. This is a Student Learning Experience
4. The Coaches are Volunteers
5. The Event Supervisors are Volunteers and Human
6. There will be Mistakes (by everyone)
7. Students will Benefit no matter where they place
8. We are building a Student Learning Team, working on high level STEM material and standards
9. No matter what happens Today, there will be a Tomorrow so Students can Learn from their Mistakes and Accomplishments
10. The Future is Bright! We hope you enjoy the Tournament!!

Student's Pledge

I pledge to put forth my best effort in the Science Olympiad tournament and to uphold the principles of honest competition. In my events, I will compete with integrity, respect, and sportsmanship towards my fellow competitors. I will display courtesy towards Event Supervisors and Tournament Personnel. My actions will exemplify the proud spirit of my school, team, and state.

Coach's Pledge

On behalf of the coaches and assistants at this tournament, I pledge to encourage honesty and respect for tournament personnel, our fellow coaches, and other team members. We want our efforts to bring honor to our community and school.

Parent's Pledge

On behalf of the parents and spectators I pledge to be an example for our children by:

- respecting the rules of Science Olympiad,
- encouraging excellence in preparation and investigation,
- supporting independence in design and production of all competition devices,
- and respecting the decisions of event supervisors and judges.

Our examples will promote the spirit of cooperation within and among all our participating teams.
North Dakota State Science Olympiad Steering Committee

Scott Wood, Ph.D., Dean, NDSU College of Science and Mathematics
Joseph Latimer, NDSU Dept of Computer Science
Otto Borchert, MSU Computer Information Science
Guy Hokanson, NDSU Department of Computer Science

Regional Directors

JoDe Knutson-Person, Bismarck State College
Corinne Brevik, Dickinson State University
JoAnn Schapp, Bob Crackel, Minot State University
Tracy Chisholm, Angela Bartholomay, Dakota College at Bottineau
Teather Sundstrom, Valley City State University

Supporting Organizations

North Dakota State University – Facilities/Materials
IEEE-HKN honor society

Site Operations

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>Jane Dickerson</td>
</tr>
<tr>
<td>Team/Coach/Facilitator Communications</td>
<td>Guy Hokanson</td>
</tr>
<tr>
<td>University Arrangements</td>
<td>Guy Hokanson</td>
</tr>
<tr>
<td>Arbitration</td>
<td>Joe Latimer</td>
</tr>
<tr>
<td>Record/Scores Tabulation</td>
<td>Demitrius Fenton</td>
</tr>
<tr>
<td>Restaurants/Eating Facilities</td>
<td>NDSU Dining Services</td>
</tr>
<tr>
<td>Event Accommodations</td>
<td>NDSU Physical Plant</td>
</tr>
<tr>
<td>Artiest</td>
<td>Katy Cox</td>
</tr>
</tbody>
</table>
# Participating Schools and Coaches

## Regional Tournament: Bismarck  Regional Director: JoDe Knutson Person

### Division B (Grades 6-9)

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon Middle School</td>
<td>Daryl Duttenheffner</td>
<td><a href="mailto:darryl_duttenheffner@bismarckschools.org">darryl_duttenheffner@bismarckschools.org</a></td>
</tr>
<tr>
<td></td>
<td>Brent Roningen</td>
<td><a href="mailto:brent_roningen@bismarckschools.org">brent_roningen@bismarckschools.org</a></td>
</tr>
<tr>
<td>Wachter Middle School</td>
<td>Wade Curren</td>
<td><a href="mailto:Wade_Curren@bismarckschools.org">Wade_Curren@bismarckschools.org</a></td>
</tr>
<tr>
<td></td>
<td>Logan McCleary</td>
<td><a href="mailto:lmccleary411@gmail.com">lmccleary411@gmail.com</a></td>
</tr>
<tr>
<td></td>
<td>Jeanne Metzger</td>
<td><a href="mailto:Jeanne_Metzger@bismarckschools.org">Jeanne_Metzger@bismarckschools.org</a></td>
</tr>
<tr>
<td></td>
<td>Ben Schiermeister</td>
<td><a href="mailto:Ben_Schiermeister@bismarckschools.org">Ben_Schiermeister@bismarckschools.org</a></td>
</tr>
<tr>
<td>Bismarck Mandan Area Home Edu</td>
<td>Nancy Larson</td>
<td><a href="mailto:raising5@computermail.net">raising5@computermail.net</a></td>
</tr>
<tr>
<td>Center Stanton High School</td>
<td>Brooke Boeshans</td>
<td><a href="mailto:Brooke.boeshans@k12.nd.us">Brooke.boeshans@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Jodi Hintz</td>
<td><a href="mailto:jodi.hintz@k12.nd.us">jodi.hintz@k12.nd.us</a></td>
</tr>
<tr>
<td>Hazen Public School</td>
<td>Jason Helde</td>
<td><a href="mailto:jason.helde@k12.nd.us">jason.helde@k12.nd.us</a></td>
</tr>
</tbody>
</table>

### Division C (Grades 9-12)

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legacy High School</td>
<td>Michael Walz</td>
<td><a href="mailto:michael_walz@bismarckschools.org">michael_walz@bismarckschools.org</a></td>
</tr>
<tr>
<td>Bismarck High School</td>
<td>Scott Weigum</td>
<td><a href="mailto:scott_weigum@bismarckschools.org">scott_weigum@bismarckschools.org</a></td>
</tr>
<tr>
<td>St. Mary's Central High School</td>
<td>Marilyn Miller</td>
<td><a href="mailto:mmiller@lightofchristschools.org">mmiller@lightofchristschools.org</a></td>
</tr>
<tr>
<td>Hazen Public School</td>
<td>Jason Helde</td>
<td><a href="mailto:jason.helde@k12.nd.us">jason.helde@k12.nd.us</a></td>
</tr>
<tr>
<td>Medina Public School</td>
<td>Kaylie Bjornstad</td>
<td><a href="mailto:Kaylie.Bjornstad@k12.nd.us">Kaylie.Bjornstad@k12.nd.us</a></td>
</tr>
</tbody>
</table>

## Regional Tournament: Bottineau  Regional Director: Tracy Chisholm, Angela Bartholomay

### Division B

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Langdon Area School</td>
<td>Kelly Hochhalter</td>
<td><a href="mailto:kelly.hochhalter@k12.nd.us">kelly.hochhalter@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Christina Saylor</td>
<td><a href="mailto:Christina.Saylor@k12.nd.us">Christina.Saylor@k12.nd.us</a></td>
</tr>
<tr>
<td>Bottineau Public School</td>
<td>Janell Monson</td>
<td><a href="mailto:janell.monson@k12.nd.us">janell.monson@k12.nd.us</a></td>
</tr>
<tr>
<td>MLS-Mohall</td>
<td>Shannon Grondahl</td>
<td><a href="mailto:shannon.grondahl@k12.nd.us">shannon.grondahl@k12.nd.us</a></td>
</tr>
<tr>
<td>Drake Anamoose High School</td>
<td>Cynthia Dieterle</td>
<td><a href="mailto:cynthia.dieterle@k12.nd.us">cynthia.dieterle@k12.nd.us</a></td>
</tr>
</tbody>
</table>

### Division C

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Langdon Area School</td>
<td>Kelly Hochhalter</td>
<td><a href="mailto:kelly.hochhalter@k12.nd.us">kelly.hochhalter@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Christina Saylor</td>
<td><a href="mailto:Christina.Saylor@k12.nd.us">Christina.Saylor@k12.nd.us</a></td>
</tr>
<tr>
<td>Bottineau Public School</td>
<td>Janell Monson</td>
<td><a href="mailto:janell.monson@k12.nd.us">janell.monson@k12.nd.us</a></td>
</tr>
<tr>
<td>MLS-Mohall</td>
<td>Shannon Grondahl</td>
<td><a href="mailto:shannon.grondahl@k12.nd.us">shannon.grondahl@k12.nd.us</a></td>
</tr>
<tr>
<td>Divide County High School</td>
<td>Bob Brown</td>
<td><a href="mailto:bob.brown@k12.nd.us">bob.brown@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Rodney Johnson</td>
<td><a href="mailto:rodney.johnson@k12.nd.us">rodney.johnson@k12.nd.us</a></td>
</tr>
</tbody>
</table>
**Regional Tournament:** Dickinson  **Regional Director:** Corinne Brevik

### Division B

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowman County High School</td>
<td>Jason Waskiewicz</td>
<td><a href="mailto:jason.waskiewicz@k12.nd.us">jason.waskiewicz@k12.nd.us</a></td>
</tr>
<tr>
<td>Dickinson Middle School</td>
<td>Dixie Dennis</td>
<td><a href="mailto:ddennis@dpsnd.org">ddennis@dpsnd.org</a></td>
</tr>
<tr>
<td></td>
<td>Jennifer Leslie</td>
<td><a href="mailto:jleslie@dpsnd.org">jleslie@dpsnd.org</a></td>
</tr>
<tr>
<td>Beulah Middle School</td>
<td>Kathryn Johnson</td>
<td><a href="mailto:kathryn.johnson@k12.nd.us">kathryn.johnson@k12.nd.us</a></td>
</tr>
<tr>
<td>Killdeer High School</td>
<td>Jeremy Jepson</td>
<td><a href="mailto:jeremy.jepson@k12.nd.us">jeremy.jepson@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Jeff West</td>
<td><a href="mailto:jeff.west@k12.nd.us">jeff.west@k12.nd.us</a></td>
</tr>
<tr>
<td>Trinity Junior High and High School</td>
<td>Casey Kessel</td>
<td><a href="mailto:casey.kessel1@k12.nd.us">casey.kessel1@k12.nd.us</a></td>
</tr>
</tbody>
</table>

### Division C

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dickinson High School</td>
<td>Dena Venneman</td>
<td><a href="mailto:dvenneman@dpsnd.org">dvenneman@dpsnd.org</a></td>
</tr>
<tr>
<td>Killdeer High School</td>
<td>Jeremy Jepson</td>
<td><a href="mailto:jeremy.jepson@k12.nd.us">jeremy.jepson@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Jeff West</td>
<td><a href="mailto:jeff.west@k12.nd.us">jeff.west@k12.nd.us</a></td>
</tr>
<tr>
<td>Beach High School</td>
<td>Dale Peplinski</td>
<td><a href="mailto:dale.peplinski@k12.nd.us">dale.peplinski@k12.nd.us</a></td>
</tr>
<tr>
<td>Bowman County High School</td>
<td>Jason Waskiewicz</td>
<td><a href="mailto:jason.waskiewicz@k12.nd.us">jason.waskiewicz@k12.nd.us</a></td>
</tr>
<tr>
<td>Hettinger Public School</td>
<td>Anna Block</td>
<td><a href="mailto:Anna.Block@k12.nd.us">Anna.Block@k12.nd.us</a></td>
</tr>
</tbody>
</table>

**Regional Tournament:** Minot  **Regional Director:** JoAnn Schapp, Bob Crackel

### Division B

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erik Ramstad Middle School</td>
<td>Lisa Potts</td>
<td><a href="mailto:Makettlepotts@gmail.com">Makettlepotts@gmail.com</a></td>
</tr>
<tr>
<td>Jim Hill Middle School</td>
<td>Rhonda Evanoff</td>
<td><a href="mailto:evanoffrhonda@gmail.com">evanoffrhonda@gmail.com</a></td>
</tr>
<tr>
<td></td>
<td>Evan Kramer</td>
<td><a href="mailto:ekramer@mymps.us">ekramer@mymps.us</a></td>
</tr>
<tr>
<td>Nedrose High School</td>
<td>Jason Brooking</td>
<td><a href="mailto:jason.brooking@k12.nd.us">jason.brooking@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>JoAnn Schapp</td>
<td><a href="mailto:joschapp@brhs.com">joschapp@brhs.com</a></td>
</tr>
<tr>
<td>Carrington High School</td>
<td>Pat Boehmer</td>
<td><a href="mailto:pat.boehmer@k12.nd.us">pat.boehmer@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Carrie Nichols</td>
<td><a href="mailto:carrie.nichols@k12.nd.us">carrie.nichols@k12.nd.us</a></td>
</tr>
<tr>
<td>Velva High School</td>
<td>Chris Braaten</td>
<td><a href="mailto:chris.braaten@k12.nd.us">chris.braaten@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Stephanie Sundhagen</td>
<td><a href="mailto:stephanie.sundhagen@k12.nd.us">stephanie.sundhagen@k12.nd.us</a></td>
</tr>
</tbody>
</table>

### Division C

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Century High School</td>
<td>Tim Fletcher</td>
<td><a href="mailto:tim_fletcher@bismarckschools.org">tim_fletcher@bismarckschools.org</a></td>
</tr>
<tr>
<td></td>
<td>Scott Johnson</td>
<td><a href="mailto:scott_johnson@bismarckschools.org">scott_johnson@bismarckschools.org</a></td>
</tr>
<tr>
<td>Minot High Magic City Campus</td>
<td>Gene Curtiss</td>
<td><a href="mailto:gene.curtiss@minot.k12.nd.us">gene.curtiss@minot.k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Todd Sivertson</td>
<td><a href="mailto:toddsivertson747@gmail.com">toddsivertson747@gmail.com</a></td>
</tr>
<tr>
<td>Velva High School</td>
<td>Chris Braaten</td>
<td><a href="mailto:chris.braaten@k12.nd.us">chris.braaten@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Stephanie Sundhagen</td>
<td><a href="mailto:stephanie.sundhagen@k12.nd.us">stephanie.sundhagen@k12.nd.us</a></td>
</tr>
<tr>
<td>Nedrose High School</td>
<td>Jason Brooking</td>
<td><a href="mailto:jason.brooking@k12.nd.us">jason.brooking@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>JoAnn Schapp</td>
<td><a href="mailto:joschapp@brhs.com">joschapp@brhs.com</a></td>
</tr>
<tr>
<td>Carrington High School</td>
<td>Pat Boehmer</td>
<td><a href="mailto:pat.boehmer@k12.nd.us">pat.boehmer@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Carrie Nichols</td>
<td><a href="mailto:carrie.nichols@k12.nd.us">carrie.nichols@k12.nd.us</a></td>
</tr>
</tbody>
</table>
**Regional Tournament:** Valley City  **Regional Director:** Teather Sundstrom

### Division B

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ben Franklin Middle School</td>
<td>Sara Clites</td>
<td><a href="mailto:clitess@fargo.k12.nd.us">clitess@fargo.k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Theresa Nygaard</td>
<td><a href="mailto:nyygaar@fargo.k12.nd.us">nyygaar@fargo.k12.nd.us</a></td>
</tr>
<tr>
<td>Central Cass Public School</td>
<td>Sally Anderson</td>
<td><a href="mailto:Sally.Anderson@k12.nd.us">Sally.Anderson@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Marlen Haugen</td>
<td><a href="mailto:marlen.haugen@k12.nd.us">marlen.haugen@k12.nd.us</a></td>
</tr>
<tr>
<td>Northern Cass School</td>
<td>Tom Klapp</td>
<td><a href="mailto:tom.klapp@northerncassschool.com">tom.klapp@northerncassschool.com</a></td>
</tr>
<tr>
<td></td>
<td>Louise Tegtmeier</td>
<td><a href="mailto:louise@ourfarmstead.com">louise@ourfarmstead.com</a></td>
</tr>
<tr>
<td></td>
<td>Christian Thompson</td>
<td><a href="mailto:christian.thompson@northerncassschool.com">christian.thompson@northerncassschool.com</a></td>
</tr>
<tr>
<td></td>
<td>Molly Werner</td>
<td><a href="mailto:molly.werner@northerncassschool.com">molly.werner@northerncassschool.com</a></td>
</tr>
<tr>
<td>Jamestown Middle School</td>
<td>Ben Elder</td>
<td><a href="mailto:benjamin.elder@k12.nd.us">benjamin.elder@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Mary Lenhart</td>
<td><a href="mailto:mary.lenhart@k12.nd.us">mary.lenhart@k12.nd.us</a></td>
</tr>
<tr>
<td>Hillsboro High School</td>
<td>Jarvis Knudson</td>
<td><a href="mailto:jarvis.knudson@gmail.com">jarvis.knudson@gmail.com</a></td>
</tr>
</tbody>
</table>

### Division C

<table>
<thead>
<tr>
<th>School Name</th>
<th>Coach</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davies High School</td>
<td>David Schultz</td>
<td><a href="mailto:schultd@fargoschools.org">schultd@fargoschools.org</a></td>
</tr>
<tr>
<td></td>
<td>Steve Trumbauer</td>
<td><a href="mailto:trumbas@fargoschools.org">trumbas@fargoschools.org</a></td>
</tr>
<tr>
<td></td>
<td>Ryan Wenaas</td>
<td><a href="mailto:wenaasr@fargo.k12.nd.us">wenaasr@fargo.k12.nd.us</a></td>
</tr>
<tr>
<td>Fargo North High School</td>
<td>Allie Kollman</td>
<td><a href="mailto:kollmaa@fargoschools.org">kollmaa@fargoschools.org</a></td>
</tr>
<tr>
<td>Central Cass Public School</td>
<td>Sally Anderson</td>
<td><a href="mailto:Sally.Anderson@k12.nd.us">Sally.Anderson@k12.nd.us</a></td>
</tr>
<tr>
<td></td>
<td>Marlen Haugen</td>
<td><a href="mailto:marlen.haugen@k12.nd.us">marlen.haugen@k12.nd.us</a></td>
</tr>
<tr>
<td>Hillsboro High School</td>
<td>Jarvis Knudson</td>
<td><a href="mailto:jarvis.knudson@gmail.com">jarvis.knudson@gmail.com</a></td>
</tr>
<tr>
<td>Kulm Public School</td>
<td>Phillip King</td>
<td><a href="mailto:phillip.king@k12.nd.us">phillip.king@k12.nd.us</a></td>
</tr>
</tbody>
</table>

### WORD SEARCH – ELEMENTS

<table>
<thead>
<tr>
<th>CALCIUM</th>
<th>CARBON</th>
<th>CHLORINE</th>
<th>COBALT</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPPER</td>
<td>HELIUM</td>
<td>HYDROGEN</td>
<td>IODINE</td>
</tr>
<tr>
<td>LEAD</td>
<td>LITHIUM</td>
<td>NEON</td>
<td>NICKEL</td>
</tr>
<tr>
<td>NITROGEN</td>
<td>OXYGEN</td>
<td>PLATINUM</td>
<td>POTASSIUM</td>
</tr>
<tr>
<td>SILVER</td>
<td>TIN</td>
<td>TITANIUM</td>
<td>ZINC</td>
</tr>
</tbody>
</table>

```
T C R Q R N K D J E S R Q C P E H C
L O X C P K X K C H A A A A H L N E N
A P Q U O L K O D J F O V L A I L O
B P G W T N I T R O G E N O T D I E
O E E S A L I T H I U M U R I O U N
C R Z W S Q L Y H W L C T I N I M M
R W O U S X Z Q F Q U F U N U L U M
N E I E I N I C K E L N Q E M I U N
U O V Y U N E G O R D Y H Y N I E T
G L B L M L E A D V B W T A C G M I
P Z T R I X M R J R G X T L Y U E N
Q C I I A S C N I Z B I A X O G F U
T Y M H M C F L I V T C O Z E D M A
```
Science Olympiad Facilitators and Helpers

Thanks to the facilitators, listed and unlisted, for their time in making the Science Olympiad a success.

**Anatomy B+C**
Kimberly Booth
Tate Brunelle
Kayla Earls
Tara Slominski

**Astronomy C**
Leo Wilczek
Hadeel Alhamadah
Megan Ostrand
Peter Fraser
Samantha Ingersoll
Trent Yetzer

**Battery Buggy B**
MD Sharijad Hasan
Evan Wurden
Jason Fye
Sean Hagen
Zak Ray Merrigan

**Boomilever B+C**
Andrew Merkel
Jared Honeyman
Meade Erickson

**Chemistry Lab C**
Mindika Tilan Nayakasinghe
Alex Leiferman
Esin Karanki
Eva Byerley
Katherine Kessel

**Circuit Lab B+C**
Dipankar Mitra
Evan Wurden
Ismail solimanaly
Jixiang(Logan) Zeng
Ryan Pufall

**Code Busters C**
Taylor Schmidt
Ali Ha'idouss
Meagan Olson
Nathan Hale De La Garza
Ryan Peters
Willem Isaac Bohrer

**Crime Busters B**
Chirsty Gallagher-Lein
Amran aden
Humayra Ferdous Shoshi
Joshua Molden
Juan Panora

**Density Lab B**
Dane Skow
Anas Karuth
Chunj Gu
Jordan Brainard

**Designer Genes C**
Angela Hodgson
Brooke Rothamer
Cody DeWitt
Elizabeth Ratchenski
Kiesha Dekarske-Riewer
Reilly Swanson

**Disease Detectives B+C**
Danielle Pinnick
Cherokee Durant
Donald Miller
Taryn Neubauer

**Dynamic Planet B+C**
Emily Wangler
Katrina Schauer
Leslie Gerhard

**Experimental Design B**
Kara Trautman
Jenna Borseth
Sean J Mahoney
Rachel Scheffert

**Experimental Design C**
Gursimran Walia
Madison Ashbach
Zachery Schurman
Taylor Benske
Benjamin Bryant

**Fermi Questions C**
Gursimran Walia
Madison Ashbach
Zachery Schurman
Taylor Benske

**Forensics C**
Amran Aden
Alex Leiferman
Jasmin Farmakes
Khadeeja Mahmoud
Monica Zent
Yehor Polunin
Zoriana Demchuk

**Fossils B+C**
Anna Vanderlaan
Brooke vanderlaan
Robert Tolliver

**Game On B**
Simone Ludwig
Alex Freely
Joe McConnell
Matt Miranda
Md Faisal Kabir
Samuel Wolf

**Generic Helper**
Brian Miller
Christopher Kotarsky
Connor Marchus
Janet Fleming-Halmrast
Kevin Stockbridge
Sam Richman
Ze Ni

**Geologic Mapping C**
Stephanie Day
Chyna Pei
Jasmine Cutter
Umesh Acharya

**Heredity B**
Angela Hodgson
Claire Campion
Katelyn Johnson
Kennedy Money
Kwaku Baryeh
Nkolika Nwankwo

**Herpetology B+C**
Danielle Pinnick
Cherokee Durant
Donald Miller
Taryn Neubauer

**Meteorology B**
Adnan Akyuz
Esena Akyuz
Joe Mocnik

**Mission Possible C**
Devin Steiner
Jackson Smith
Connor Liudahl
Hunter Bring
Sam Richman

**Mousetrap Vehicle C**
Andrew Jones
Brendan Smith
Shelly Schwandt
Zachary Kuhn

**Mystery Architecture B**
Alex Radermacher
Alison Long
Christopher R Busacker
Kweeni Iduoku

**Potions and Poisons B**
Vidisha Bhatt
Brooke Rothamer
Jasmin Farmakes
Joe Rocha

**Protein Modeling C**
Srinivasulu Dasanna
Beau Jernberg
Rebekah Oliver
Samuel Wyatt
Shane Wyborny
Yue Li

**Road Scholar B**
Matti Kariluoma
Andrew Niehaus
Kiel Critenden
Luke Tollefson
Steven Glasford
Zachary Dummer

**Roller Coaster B**
Nasim Soufizadeh Balaneji
Mariana Zlatesvki
Milton Fernandez
Pong Mei Himmtann
Zak Ray Merrigan

**Solar System B**
Brett Mortenson
Alaina Driscoll
Laura Dallmann

**Sounds of Music C**
Anne Denton
Rahil AshtariMahini

**Thermodynamics B+C**
Martin Eichers
Chris Colbert
Margaret Latterell
Megan B Chromy

**Water Quality B+C**
Maxwell L. Pergande
Mohammad Hadi Bazrkar
Mackenzie Ries
Maryam Amiri
Negin Zamani

**Write It Do It B+C**
Emily Hopfauf
Anthony Higgins
Kelvin abambaora
Tanner Moerke
<table>
<thead>
<tr>
<th>Event</th>
<th>Division</th>
<th>7:30-8:00</th>
<th>8:45-9:40</th>
<th>9:50-10:45</th>
<th>10:55-11:50</th>
<th>12:00-12:55</th>
<th>1:05-2:00</th>
<th>2:10-3:05</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>C</td>
<td>1-12 C</td>
<td>13-24 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A.G. Hill 300</td>
</tr>
<tr>
<td>Battery Buggy</td>
<td>B</td>
<td>Sign Up</td>
<td>Impound</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boomilever</td>
<td>B &amp; C</td>
<td></td>
<td>Walk-In</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry Lab</td>
<td>C</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code Busters</td>
<td>C</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime Busters</td>
<td>B</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density Lab</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td>1-12 B</td>
<td>13-24 C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designer Genes</td>
<td>C</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disease Detectives</td>
<td>B &amp; C</td>
<td>13-24 C</td>
<td>1-12 B</td>
<td>13-24 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Planet</td>
<td>B &amp; C</td>
<td>1-12 C</td>
<td>13-24 C</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Design (B)</td>
<td>B</td>
<td>13-24 B</td>
<td>1-12 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Design (C)</td>
<td>C</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fermi Questions</td>
<td>C</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forensics</td>
<td>C</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fossils</td>
<td>B &amp; C</td>
<td>13-24 B</td>
<td>1-12 B</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Game On</td>
<td>B</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geologic Mapping</td>
<td>C</td>
<td>13-24 C</td>
<td>1-12 C</td>
<td>13-24 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heredity</td>
<td>B</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herpetology</td>
<td>B &amp; C</td>
<td>13-24 B</td>
<td>1-12 C</td>
<td>13-24 C</td>
<td>1-12 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meteorology</td>
<td>B</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission Possible</td>
<td>C</td>
<td>Sign Up</td>
<td>Impound</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mousetrap Vehicle</td>
<td>C</td>
<td>Sign Up</td>
<td>Impound</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mystery Architecture</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td>13-24 B</td>
<td>1-12 B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potions &amp; Poisons</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td>13-24 B</td>
<td>1-12 B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein Modeling</td>
<td>C</td>
<td></td>
<td></td>
<td>13-24 C</td>
<td>1-12 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Road Scholar</td>
<td>B</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roller Coaster</td>
<td>B</td>
<td>Sign Up</td>
<td>Impound</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solar System</td>
<td>B</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sounds of Music</td>
<td>C</td>
<td>Sign Up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermodynamics</td>
<td>B &amp; C</td>
<td>Impound</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td>1-12 C</td>
<td>13-24 C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Quality</td>
<td>B &amp; C</td>
<td>1-12 C</td>
<td>13-24 C</td>
<td>1-12 B</td>
<td>13-24 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write It/Do It</td>
<td>B &amp; C</td>
<td>1-12 C</td>
<td>13-24 C</td>
<td>13-24 B</td>
<td>1-12 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key for color coded time slots: Walk-In | Sign Up

Building Codes:
- CIE: Civil and Industrial Engineering
- ECE: Electrical and Computer Engineering
- FLC: Katherine Kilbourne Burgum Family Life, 4-H Center
- QBB: Quentin Burdick Building
- SE: South Engineering
Please note that there is no fee for attending this event! Snacks and lunch will be provided free of charge each day, and a free Raspberry Pi will be distributed to all camp participants.