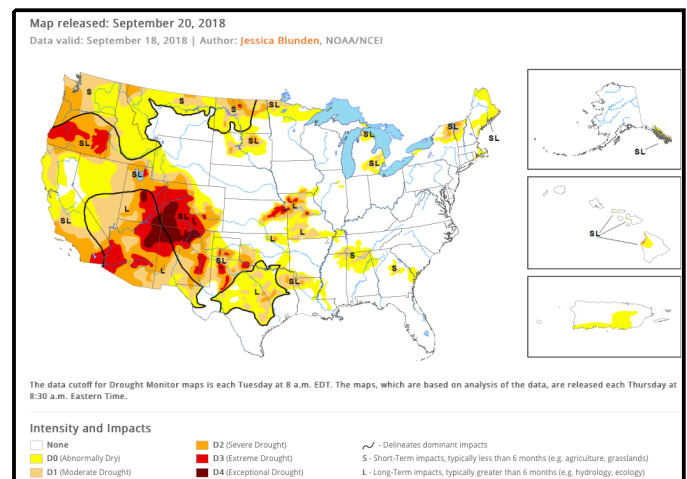


Desert Data Jam

Bringing science data to life for non-scientist audiences

Guidelines for the Spring 2019 Competition Middle School Division



Project Overview

Welcome to the Desert Data Jam! For more than 100 years, scientists with the Jornada Experimental Range, a US Department of Agriculture facility, have been conducting desert ecology research in Southern New Mexico. Additionally, the Jornada Basin Long-Term Ecological Research Program (LTER) site has contributed to our understanding of desert ecosystems for more than 25 years.

These organizations have gathered a wealth of long-term data. Scientists, now more than ever, are looking to (1) use these long-term datasets to answer scientific questions and (2) find new, creative ways to summarize and present data to non-scientist audiences. The Desert Data Jam began in 2011 to encourage students to combine their creativity and data literacy skills. Students will find data trends in one of four datasets that have been collected in southern New Mexico and design unique ways to present these trends to non-scientist audiences.

While developing their Desert Data Jam projects, students will engage in seven of the eight Science and Engineering Practices from the Next Generation Science Standards, including: (1) asking questions and defining problems, (2) developing and using models, (3) analyzing and interpreting data, (4) using mathematical and computational thinking, (5) constructing explanations and designing solutions, (6) engaging in argument from evidence, and (7) obtaining, evaluating, and communicating information.

Asombro staff will visit your class at least 4 times to work with your students on Desert Data Jam. Upon completion of Desert Data Jam projects in your class, please select the top 3 projects to be entered into our final competition at NMSU in April 2019. Projects at the final competition will be judged using the rubric in this packet. We encourage you to use this rubric when grading your students' projects and choosing the projects to advance to the finals.

Funding for the Desert Data Jam has been generously provided by a grant from the National Science Foundation to the Jornada Basin LTER and from the Las Cruces Public School District.

For more information, please contact:

Stephanie Bestelmeyer (stephanie@asombro.org) or Rachel Szczytko (rachel@asombro.org)

Asombro Institute for Science Education

575-524-3334

Dates to remember:

Final competition selections due to Asombro by **Thurs. April 11, 2019.**

Projects must be delivered to NMSU on **Tues. April 23, 2019.**

Awards ceremony will take place on **Thurs. April 25, 2019.**

Rules and Procedures

Teams

Students can work on projects on their own or in groups of no more than three students. Prizes (\$300 for 1st place; \$200 for 2nd place; and \$100 for 3rd place) are awarded for a project, so it must be split between team members if a team consists of more than one student.

Registration

Due to space limitations, only the top 3 projects from each class can be entered into the final competition. Register the top projects from your class by **Thurs. April 11, 2019**. Please include:

- 1) Your name and school
- 2) Student names and project titles
- 3) Brief description of creative project
- 4) Description of project creative project display needs (outlet, easel, etc.)

You may send in your registration via email: rachel@asombro.org. You will receive a confirmation email.

Data to Use for the Project

Students will have a choice between four regional datasets: dust emissions, litter decomposition, mammal habitat use, and drought. Each includes locally collected data that students can apply to their understanding of the desert ecosystem. Once they choose the dataset, students will be guided through interpreting their data, identifying a trend, and developing a creative project.

Parts of the Project

The final product students will create includes: (1) a **presentation board** that will be on display during the judging and awards ceremony and (2) the **creative project** (infographic, physical model, game, video, etc.). Presentation boards must be no larger than 48" wide and 36" tall. Use a standard, folding science fair display board. Please see the enclosed "Presentation Board Requirements" for a list and description of the components students should include on their presentation boards.

Project Supplies

Students are responsible for supplying all necessary materials for their data jam project. This includes their presentation board and any materials for their creative project (art supplies, technology, etc.). Asombro will provide tables and easels for presentation board display and outlets for student technology.

Technology

Although not required, it is common for students to use technology as a component of their creative project (e.g. video clip, recorded song, video game). If projects entered into the final competition require technology (iPad, laptop, MP3 player, etc.), it is students' responsibility to obtain technology from their school or use their own. Asombro can provide an outlet for charging and table space for display, but we cannot provide any technology. All technology in the final competition will be stored in a locked room overnight.

If technology that students use for their projects is password protected, students must remove the password protection or provide login information on their presentation board.

Submitting Student Projects

The poster and associated materials for student projects must be delivered to Wooton Hall (corner of Knox St. and Frenger St.) on the New Mexico State University campus on Tuesday, April 23 between 3:00 PM and 7:00 PM.

Deadlines

Thurs. April 11, 2019 - Each teacher needs to submit their registration for the top three projects.

Tues. April 23, 2019 - Projects and posters are due by 7:00 PM at Wooton Hall.

How Projects Will Be Judged

A panel of judges, including scientists and nonscientists, will evaluate each project using the judging rubric in this packet. There are three main categories: scientific practices, presentation board, and creative project.

Prizes

Prizes will be awarded for 1st, 2nd, and 3rd place projects. Honorable mentions will also be awarded.

1st prize - \$300

2nd prize - \$200

3rd prize - \$100

Judging will take place on Wednesday April 24, 2019. An awards ceremony will be held at 6:30 PM on Thursday April 25 in Wooton Hall. All projects must be picked up at the end of the awards ceremony.

Questions

Please feel free to contact the Asombro Institute for Science Education if you have any questions about the project or competition.

Asombro Institute for Science Education

575-524-3334

information@asombro.org

www.asombro.org/desertdatajam