Planning a Science Odyssey Project

Congratulations for wanting to participate in Science Odyssey, LVJUSD's science and engineering fair. By participating in Science Odyssey, you distinguish yourself as a student who likes to challenge themselves. Good for you!

Use this sheet to help guide your project progress. When you have questions, check in with a science teacher or contact Regina Brinker, teacher on special assignment supporting science and engineering programs, at rbrinker@lvjusd.org.

Choosing a Project Topic

- ☐ Topic is something I am interested in.
- ☐ Topic is something that I want to learn more about.
- ☐ I have enough time to do this project.
- ☐ I have the materials for the project, or could borrow them from school.
- ☐ The project does not use fire, weapons, hazardous materials, or controlled substances.
- ☐ I can be safe when doing this project.
- ☐ I have or will borrow safety glasses and gloves, if needed.

Using a project notebook*

Scientists and engineers use a notebook to keep track of their ideas and progress. You should also keep a notebook for your Science Odyssey project. Judges will read your notebook to get an idea of your thinking and progress throughout your work.

- ☐ Use of notebook started as I brainstormed ideas for a project.
- ☐ Each entry has a date.
- ☐ Entries include my background research, questions, procedures, test results, observations, challenges and solutions, unexpected results, sketches, measurements.
- ☐ My name and the name of my school are on the notebook.

* A project notebook is not required for computer science entries (Grades 5 – 12).

Project Procedures

1. What question are you trying to answer with your project? A **testable question** means that you are asking about something that can be measured precisely, and that the test may be repeated several times.

Rather than asking, *Which plant will grow better*, be more specific. Are you measuring plant height, number of leaves, color of leaves, number of flowers? A stronger question is *Do seedlings grow taller if music is played?*

- ☐ My question does not say *Which is better…* or *Which do people like…* These are opinions.
- ☐ My question tells what is being measured.
- ☐ My test is repeated at least three times, or multiple subjects are used for one test.
- ☐ A control is used for testing, when indicated. If the test data are collected from a survey, a control group might not be needed. If you are not sure if a control is needed, please check with your teacher.

2. Data is collected during testing

- ☐ Something is measured for my project. Examples include time, distance, mass, temperature, number of responses or results.
- ☐ A unit of measurement is included for my data. Examples include mm, cm, or meters for distance; Degrees Celsius for temperature; Seconds, minutes, hours, days, or weeks, for time.
- ☐ Metric units are used for distance, mass, or temperature.

3. Results are reported

- ☐ Data is shown in a data table. Date table has a title and units of measurement.
- ☐ Date is shown in a graph. Graph has a title and units of measurement.
- ☐ A written description of the results is given.
- ☐ All writing is in the student's own words.

What to Include on the Project Board

☐ Title
☐ Background research section. You may give facts about the topic and explain technical terms used in your work.
☐ Hypothesis
☐ Materials list
☐ Procedures: This may be a bullet list or chart that shows the steps you took to complete the project. Someone should be able to read the procedures and repeat your test.
☐ Photos, diagrams, drawings related to your project
☐ Data table of test results
☐ Graph of test results
☐ Written explanation of test results. Writing should be in the student's own words.
☐ Conclusion: Was the hypothesis correct or not?
☐ Project abstract for students in grades 6 – 12
☐ Optional photographs or illustrations
☐ Optional QR code link to a video recording about the project

☐ My first and last names are on the back of the project board.
☐ My partner's full names are on the back of the project board.
☐ My school's name is on the back of the project board.

☐ My science notebook will be displayed with my project.
☐ I understand that I may not leave any materials with my project, other than the science notebook.

**This check list should NOT be included on your project board.