

## Mathis Intermediate Science Fair

### Grades 3<sup>rd</sup>-5<sup>th</sup> grade

It's that time of the year again to start thinking about the Science Fair! This year projects will be grouped into one of two scientific divisions, physical science or life/health science. Students must select a project category from the lists below. It is likely a project could fall into more than one category. It is up to the student to select the category his or her project best fits. The student needs to have their project pre-approved by their science teacher to make sure their project falls into one of the two categories. We have put together some resources to help get your child started.

#### Physical science

Area of science which focuses on the study of fundamental behavior of matter, energy, electricity, magnetism, chemistry, light, sound, and other elements related to the physical world. This division includes the geosciences.

##### Physical science categories:

- Biomedical Engineering
- Chemistry
- Embedded Systems
- Energy: Chemical
- Energy: Physical
- Engineering Mechanics
- Environmental Engineering
- Materials Science
- Mathematics
- Physics & Astronomy
- Robotics & Intelligent Machines
- Systems Software

#### Life/health science

Area of science which focuses on the phenomenon of life and the preservation of health in all organisms. Emphasis is placed on interactions between plants and animals, function of cells and the genetic mechanism, relationships of the human body systems and the influence of injury, disease, and drugs on these systems.

##### Life/health science categories:

- Animal Sciences
- Behavioral & Social Sciences
- Biochemistry
- Biomedical & Health Sciences
- Cellular & Molecular Biology
- Computational Biology & Bioinformatics
- Earth & Environmental Sciences
- Microbiology
- Plant Sciences
- Translational Medical Sciences

## Investigation type

There are four types of projects that students may enter. These are based (in part) on the Science TEKS:

- Descriptive investigations involve describing and/or quantifying parts of a natural or man-made system.
- Experimental investigations involve designing a fair test in which variables are actively manipulated, controlled, and measured to gather evidence to support or not support a causal relationship.
- Comparative investigations involve collecting data on different organisms, object, or features, or collecting under different conditions (e.g., times of year, temperatures, locations) to make a comparison.
- Technology or engineering investigations start with identifying a problem or need and tend to have an objective of creating technology or engineering design that improves upon existing tools. Example: Which bridge type can hold the most mass? Can I build a more efficient battery by changing the wiring patterns?

Note: Many students have difficulty discerning the difference between descriptive (exhibit) and experiment projects. An experiment usually follows the steps of the scientific method. It clearly asks a question to which you do not already know the answer without testing. A descriptive investigation or exhibit is an explanation of how or why something works. It reveals details about the topic. An exhibit is an explanation, not a question/problem.

Grade Level (K-8)	TEKS Introduction statements	TEKS Student expectations	Types of investigations required
Kindergarten		(2B),(2E)	simple descriptive investigations
Grade 1		(2B),(2E)	simple descriptive investigations
Grade 2		2(B),(2E)	simple descriptive investigations and descriptive investigations
Grade 3		(2A)	descriptive investigations
Grade 4		(2A)	descriptive investigations
Grade 5		(2A)	simple experimental investigations
Grade 6	(4) A(ii)	(2A), (2B)	comparative and descriptive investigations, experimental investigations
Grade 7	(4) A(ii)	(2A), (2B)	comparative and descriptive investigations, experimental investigations
Grade 8	(4) A(ii)	(2A), (2B)	comparative and descriptive investigations, experimental investigations

## Important Dates to Remember

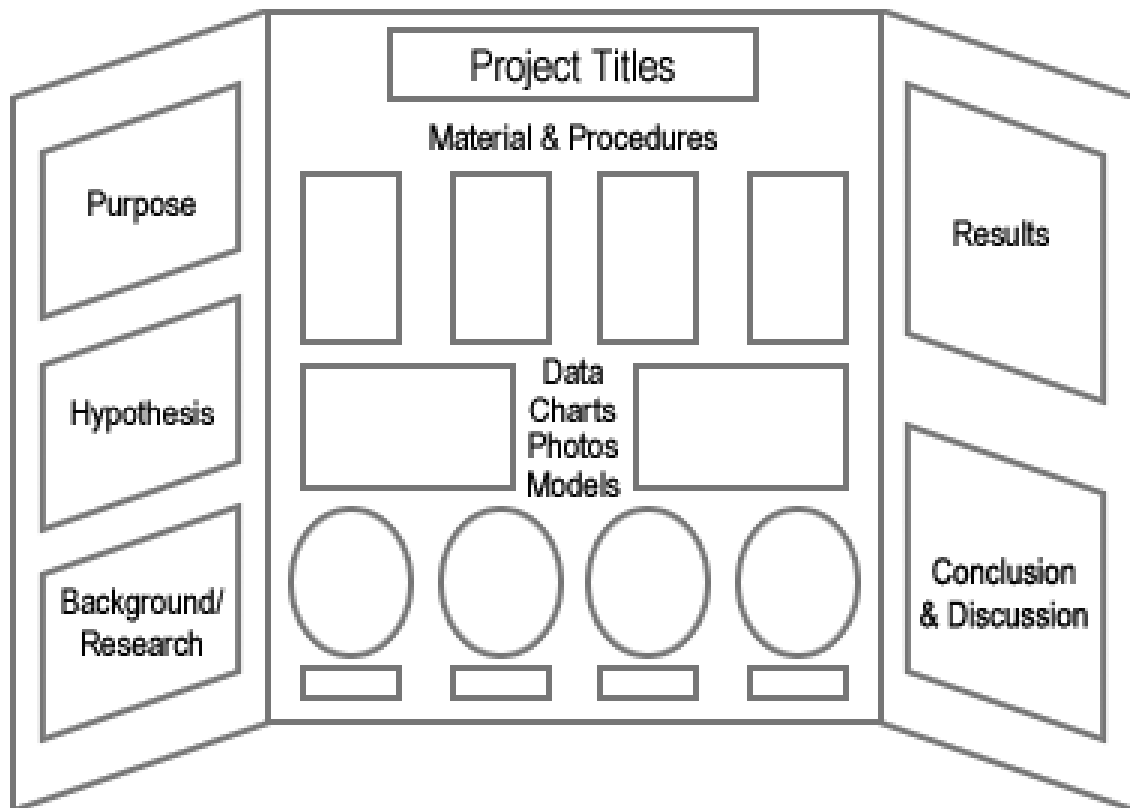
**Grade-Level Competition:** Tuesday, November 27, 2018 (turn science project into science teacher) – Students will be notified on December 3, 2018 on whether their project will compete at the campus level.

**Campus Competition:** Monday, January 7, 2019 at 4:30 pm in the MIS Cafeteria

**Regional Competition:** February 15 and 16, 2019 at Texas A&M University-Corpus Christi

## Setting Up the Display Boards

This is an example of a neat looking Science Fair Display Board. It is just an example. Depending on your information and the amount pictures, tables and graphs, you may have a different layout. Just make sure it is neat and includes all the required information.



## Resources

<http://www.discoveryeducation.com/teachers/>

<https://www.sciencebuddies.org/science-fair-projects/project-ideas>

<https://www.education.com/science-fair/>

<http://www.sciencebob.com/index.php>

<https://www.sciencebuddies.org/science-fair-projects/science-fair/judging-tips-to-prepare-science-fair>

Please Return the Bottom Form to Your Child's Teacher

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Date Form is Due: \_\_\_\_\_

Name of the Student: \_\_\_\_\_

Grade Level: \_\_\_\_\_

Student's Science Teacher: \_\_\_\_\_

My child, \_\_\_\_\_, will be conducting the following experiment:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Parent Signature

\_\_\_\_\_  
Date

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