



Brought to you by
Lockheed Martin

2018 – LIFE SCIENCE

PURPOSE:

To encourage young minds to investigate, problem-solve, learn, and demonstrate a deeper understanding of the living world around them. Scientific field of research may include:

- Biochemistry
- Botany
- Biophysics
- Physiology
- Ecology
- Environmental Science
- Medicine
- Zoology

GENERAL INFORMATION:

1. A team will consist of 1 or 2 individual(s) working together to accomplish a common purpose.
2. Teams will be assigned a sequential number at event check-in, which will be used to call teams to the event area for presenting their project. Teams not present when their number is called, will not earn points related to Presentation/Interview.
3. The Angelina County Science & Tech Fair, George H. Henderson, Jr. Exposition Center (Expo Center), and the Lufkin/Angelina County Chamber of Commerce are not responsible for any loss or damage to materials/projects.
4. The Electronic submission must be submitted one week prior to project check-in/competition.
5. The Display / Project Board must be present to check-in.

MATERIALS PROVIDED BY SCIENCE & TECH FAIR STAFF AT EVENT:

1. Table to display project.
2. Electricity may be provided but is limited in availability. Students are responsible for notifying their teacher of electricity need so that teacher can coordinate with Event Staff.

SCORING GUIDELINES (See Attached Rubric):

Safety:

- a. Teams may not display knives, sharp objects, or other items that could be construed as a weapons as part of their product.
- b. Flammable materials are prohibited; contact Science & Tech Fair Staff if you have concerns about this requirement.
- c. No animals may be brought to the Expo Center.



Brought to you by
Lockheed Martin

2018 – LIFE SCIENCE

1. Electronic Submission
 - a. For the purpose of the Angelina County Science & Tech Fair, an **electronic submission** is defined as either a provided template on line or using your own template.
 - b. The template will provide specific information regarding topics and content for each section listed below:
 - i. Title Page
 1. Project Title
 2. Event
 3. Name(s) of Participant(s) with Grade
 4. School
 5. Teacher
 - ii. Table of Contents or Tabs with each Section labeled and numbered.
 - c. Section 1: Introduction
 - iii. Problem Statement: Define the problem in question form
 - iv. Research and Background Information
 1. Research completed related to the problem
 2. Journal entries showing project progress (date/time and accomplishments of meetings)
 3. Provide a reference section/bibliography to give credit to the sources of information (ex. websites, books, etc.) and people who helped with your project
 - d. Section 2: Hypothesis Statement
 - v. Proposed expectation of results
 - vi. Identify variables used to test the hypothesis (Need to define to judges)
 1. Manipulative/Independent
 2. Responding/Dependent
 3. Controls
 - e. Section 3: Experiment Description
 - vii. List of materials with quantities and source
 - viii. Procedure:
 1. Step by step instructions for performing the experiment
 - f. Section 4: Data
 - ix. Trial data used to prove/disprove the hypothesis
 - x. Table and/or graphs
 - xi. Pictures/diagrams illustrating the experiment results
 - xii. Explain problems identified through data and actions taken to improve the results



Brought to you by
Lockheed Martin

2018 – LIFE SCIENCE

- g. Section 5: Conclusion/Summary
 - xiii. Restate the problem and hypothesis
 - xiv. Summarize results of the experiment
 - xv. State lessons learned by performing the experiment

- 2. Exhibit Display/Project Board:
 - a. A tri-fold display board that showcases your project.
 - b. Must fit in a 1 m x 1 m area.
 - c. A visual summary of the project, including:
 - i. Problem Statement
 - ii. Hypothesis
 - iii. Experiment Procedure
 - iv. Variables Tested
 - v. Data Collected and Organized in Graphs and/or Charts
 - vi. Conclusion Drawn from Data Collected
 - d. Neatness and organization count

- 3. Presentation to Judges:
 - a. Ability to demonstrate and explain product to judges during competition.
 - b. Able to present information in a logical order (problem, hypothesis, procedure, results and conclusion) within the five (5) minutes presentation.
 - c. Able to present about material vs. simply reading from the notebook.
 - d. Able to respond to questions.
 - e. All team members should be able to participate in the presentation and answering of questions.



Brought to you by
Lockheed Martin

2018 – LIFE SCIENCE

COMPETITION PROCESS:

1. Teams will be required to present the display and all portions of their project at event check in and it is recommended that the display be setup during event check-in. Students will not be allowed to check in portions of their project. With Event Superintendent's approval, displays containing expensive and/or fragile components may be taken home after check-in and returned between 8am-9am the day of competition.
2. Students will be given a team number and asked to place a team number sticker on their project display. They will also be provided a 3x5 card with their team number and asked to present it judges during the presentation portion of the competition.
3. Judges will begin scoring electronic submissions one week before the event.
4. Teams will present and explain the project to event judges during a five (5) minute presentation on competition day.
5. At the conclusion of competition and completion of judges scoring, projects must be removed from the Expo Center. (See the Official Rules document for additional information)



Brought to you by
Lockheed Martin

2018 – LIFE SCIENCE

Team Number (Provided at Check-In):

<u>Team Member Name</u>	<u>School</u>	<u>Grade</u>
(1)		
(2)		

DIVISION:

Middle School (Grades 6-8)

High School (Grades 9-12)

SCORING:

ELECTRONIC SUBMISSION CONTENT		Available Points	Awarded Points
Overall Neatness and Organization of Templates		5	
Section 1:	Problem Statement	5	
	Research and Background Information	5	
Section 2:	Hypothesis Statement	5	
	Identified Variables	5	
Section 3:	Experiment Description	10	
Section 4:	Data	10	
Section 5:	Conclusion/Summary	5	
ELECTRONIC SUBMISSION TOTAL		50	

DISPLAY CONTENT			
Overall Neatness and Organization of Display		5	
Section 1:	Problem Statement	5	
Section 2:	Hypothesis Statement	5	
	Identified Variables	5	
Section 3:	Experiment Description	5	
Section 4:	Data	5	
Section 5:	Conclusion/Summary	5	
DISPLAY CONTENT TOTAL		35	

PRESENTATION/INTERVIEW			
Presented information in a logical order		5	
Presented material vs. simply reading the notebook		5	
Able to respond to questions		5	
PRESENTATION/INTERVIEW TOTAL		15	

TOTAL PROJECT SCORE		100	
----------------------------	--	------------	--