Dallas Regional Science and Engineering Fair

February 26, 27 & 28 2021 Virtual

Beal Bank

Dallas Regional Science and Engineering Fair

DRSEF

Who we are

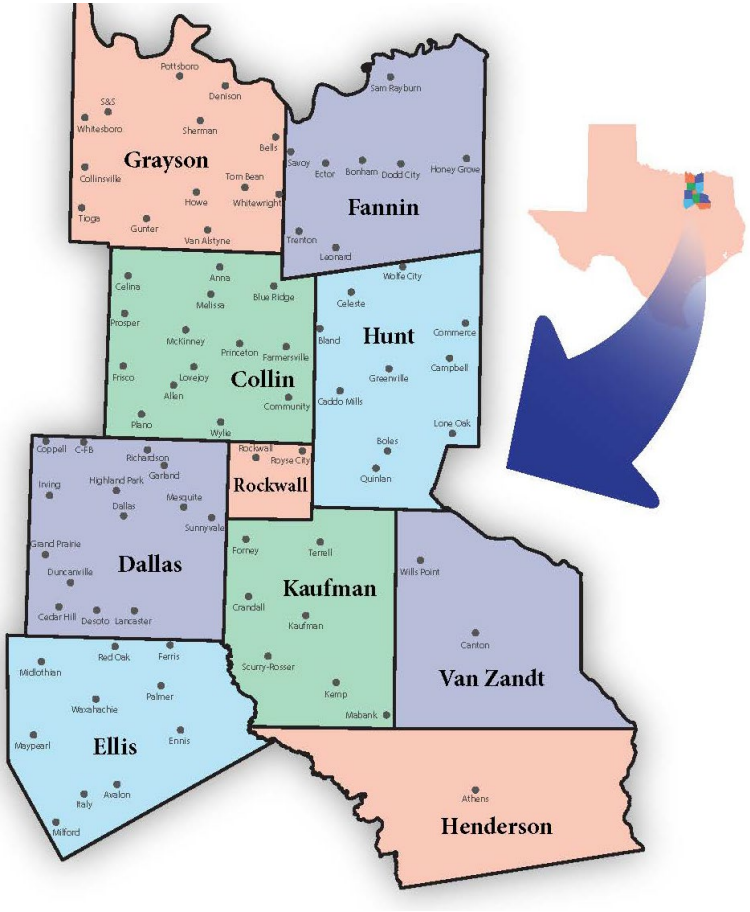
The Dallas Regional Science and Engineering Fair (DRSEF) is a non-profit organization that holds an annual science fair for 6th - 12th grade students at public, charter, private and home schools in Texas Education Agency Region 10.

The fair covers all of Collin, Dallas, Ellis, Fannin, Grayson, Hunt, Kaufman and Rockwall counties and part of Henderson and Van Zandt counties.

We are affiliated with the International Science and Engineering Fair.

Today's winners advance to:

- Texas Science & Engineering Fair
- Broadcom MASTERS
- International Science and Engineering Fair



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Divisions and Categories

Projects divided into:

- Junior Division (6-8 grade)
- Senior Division (9-12 grade)

Divisions divided into 21 Categories:

ANIM	Animal Sciences	Life	Sci
BEHA	Behavioral and Social Sciences	Life	Sci
BCHM	Biochemistry	Life	Sci
BMED	Biomedical and Health Sciences	Life	Sci
ENBM	Biomedical Engineering	Life	Engr
CELL	Cellular and Molecular Biology	Life	Sci
CHEM	Chemistry	Physical	Sci
CBIO	Computational Biology and Bioinformatics	Life	Sci
EAEV	Earth and Environmental Sciences	Life	Sci
EBED	Embedded Systems	Physical	Engr
EGSD	Energy: Sustainable Materials and Design	Physical	Engr
ENMC	Engineering Mechanics	Physical	Engr
ENEV	Environmental Engineering	Life	Engr
MATS	Materials Science	Physical	Sci
MATH	Mathematics	Physical	Sci
MCRO	Microbiology	Life	Sci
PHYS	Physics and Astronomy	Physical	Sci
PLNT	Plant Sciences	Life	Sci
ROBO	Robotics and Intelligent Machines	Physical	Engr
SOFT	Systems Software	Physical	Engr
TMED	Translation Medical Science	Life	Sci

Prizes

First, second, third and some fourth-place prizes are awarded in approximately 21 categories in both the Junior and Senior Division.

Special Awards including cash, vouchers and merchandise are awarded by 35 local companies, organizations and societies.

Beal Bank awards cash prizes to Category winners and placeholders. Junior Division winners receive up to $175 and Senior $300.

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Judging Groups

Each group numbered (1-63)
Your division and category assignment based on your judging form

Each group has a Captain
Goal – 3 judges per group

Judging Groups
2+ teams in categories with numerous projects
Team captains meet to determine final winners… 2nd round of judging

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Project Information

Each judge will receive a link to a Box folder that contains the following:

- Science and Engineering score sheets
- Zoom background image
- Judging guide for judges and students
- Judge orientation slides

Each judge will receive an email from DRSEF that contains the following:

- Their specific judge category and time
- Zoom meeting link
- Box link to project information that includes; digital project board, official abstract, any required additional forms (ex. Form 1c or form 7) and pictures of lab books (optional)

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Scoring

Complete score sheet for each project interviewed

Use scores as basis for discussion

Review differences in scoring methods and weighing of item

Judges will have online access to each project's digital board, official abstract, any required forms and lab book pages if submitted (optional)

Students were instructed not to include any links or videos on their digital boards… please DO NOT click on ANY LINKS you may find

For team projects points should be deducted if all team members are not present

Score ONLY on the quality of the project and the student's contribution to it

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Scoring Tips

Look for evidence of laboratory, field or theoretical work, not just library research or a facility with gadgets.

Interviews are the highlight of the students' fair experience and they've put in a lot of work. Do not negatively criticize the student; project weaknesses can be reflected in your scoring.

Ask many questions to form an opinion of the project, rather than letting the student deliver a long-prepared speech. But avoid grilling the student – be positive!

Engineering Scoresheet

Judge Group: PROJECT #

TOTAL SCORE / 100 _____

TITLE:

		Low	Mid	High	Max	SCORES	Notes
Research Problem	**Practical Need**	Not Described	Partly Described	Fully Described	10		
	Criteria for Solution	Not Defined	Partly Defined	Fully Defined			
	Constraints	Not Explained	Partly Explained	Fully Explained			
Method	**Alternatives**	Not Explored	Partly Explored	Fully Explored	15		
	Solution	Not Identified	Vaguely Identified	Clearly Identified			
	Prototype/Model	Not Developed	Partly Developed	Fully Developed			
Execution of Prototype	**Intended Design**	Not Demonstrated	Partly Demonstrated	Fully Demonstrated	20		
	Testing Conditions/Trials	Very Narrow	Limited	Multiple			
	Skill and Completeness	Little Demonstrated	Somewhat Demonstrated	Well Demonstrated			
Creativity	**In Above Criteria**	Cookbook No New Ideas	Teacher Assigned Some Value Added	Student Initiated Innovative	20		
Presentation	**Poster**	Illogical or Unreadable	Lacks supporting docs or some lack of clarity	Logical, readable, & supporting docs	10		
	Interview	Poor Responses Basic Misunderstanding No Conclusion No Recognition of Impact No Future Ideas (TEAM) One Student Dominant	Some Vague Responses Basic Misunderstanding Misunderstanding Results Unawareness of Impact (TEAM) Uneven Contributions	Clear Responses Basic Understanding Understands Results Recognizes Impact Future Ideas (TEAM) All Members Involved	25		

Science Scoresheet

Judge Group: PROJECT #

TOTAL SCORE / 100 _____

		Low	Mid	High	Max	SCORES	Notes
Research Question	**Purpose**	Unclear	Lacks focus	Clear	10		
	Contribution to Field	Not identified	Vague	Identified			
	Scientific Method	Not testable with	Partly Testable with	Testable with			
Method	**Data Collection**	Poorly designed	Some planning	Well-designed	15		
	Variables and Controls	Not defined	Incomplete or Inappropriate	Defined and Appropriate			
Execution	**Reproducibility**	None Possible	Difficult	Good	20		
	Data Collection & Analysis	Arbitrary	Incomplete	Systematic			
	Math Methods	Erroneous	Some Inappropriate	Appropriate & correct			
	Data Collected	None	Insufficient	Sufficient			
Creativity	**In Above Criteria**	Cookbook No New Ideas	Teacher Assigned Some Value Added	Student Initiated Innovative	20		
Presentation	**Poster**	Illogical or Unreadable	Lacks supporting docs or some lack of clarity	Logical, readable, & supporting docs	10		
	Interview	Poor Responses Basic Misunderstanding No Conclusion No Recognition of Impact No Future Ideas (TEAM) One Student Dominant	Some Vague Responses Basic Misunderstanding Misunderstanding Results Unawareness of Impact (TEAM) Uneven Contributions	Clear Responses Basic Understanding Understands Results Recognizes Impact Future Ideas (TEAM) All Members Involved	25		

Interview

All interviews will be conducted via Zoom at their scheduled time.

Each project will be interviewed by the entire judge group at the same time.

Each project will have a 10-minute time limit.

Student will spend the first minute summarizing their project.

Students are not allowed to demonstrate or show any part of their project.

Students are not allowed to share their screens.

Parents of students are not allowed to join the interview. If a parent should interrupt during an interview, the project will be disqualified.

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Standard Interview Questions

Please spend a minute describing your project.

How did you get the idea?

Describe the timeline for this project.

What are the independent and dependent variables, what are the controls?

How did you decide the number of trials to do?

What obstacles or unexpected results did you encounter?

(*Team projects*) Who did what and how did you apportion the tasks?

On what basis did you reach your conclusion?

What could be done to strengthen the work?

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Conduct: Nathan Eaton Judging Do's

Consider age, maturity and knowledge… these are students, not professionals!

Use a Zoom background that is professional and not distracting.

Be careful to not talk over the student or other judges as they ask questions

Students take competitions seriously

- Be encouraging
- Be respectful
- Remember that interviews are the highlight of the fair for the students
- Have fun and learn new things

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Judging Don’ts

Don’t judge someone you know

Don’t ask about parents or school

Don’t ignore weak projects

Don’t criticize… offer suggestions

Don’t discuss your judging process with students, parents or teachers

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Captains' Responsibilities

Leadership during interview

Listen to all group members

Build consensus

Be accurate in score keeping

Be scientific and fact based

Maintain the timetable

Submit final results (link will be provided)

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Monitors' Role

Handle any technical issues that arise.

Ensure the interviews stay on time.

Ensure the students follow virtual judging rules.

Submit any concerns to Heather or Kristine.

Get judges any information they need.

Monitors are NOT part of the judging process and judges should not ask for their thoughts on any project or student.

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Thank you!

We couldn't do any of this for our students without our amazing judges volunteering their time! We appreciate you!

Winners will be announced on our Facebook page by 5:00 pm on Sunday 2/28

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