



# BASEF

MERIT JUDGES TRAINING PRESENTATION



## Welcome to the BASEF training session

Judging is one of the most important parts of any Science Fair.

As a Merit judge, you are acting as a role model. You may well be the first professional they have met that does science/engineering for a living.

I believe that the interactions you have with the students is far more important than the selection of award winners.

After all, entering a regional science fair project is a process as well as an event.

## BASEF Merit Judging Team

The team includes:

- Judge in Chief,
- Data manager/registrar,
- Assistant Judge in Chief,
- Category chairs – the projects are grouped into categories (following CWSF and ISEF guidelines), each group has a group leader, the Category chair
- Merit judges

*Additionally, there are over 100 Special Awards Judges – judges for specific criteria/awards*





## Today we will be:

- ▶ Reviewing the timelines for students and judges
- ▶ Outlining the role of Merit Judges
- ▶ Discussing the Judging score sheet
- ▶ Discussing the Judging assignments & marks submission
- ▶ Reviewing confidentiality
- ▶ Sharing hints on Merit judging
- ▶ Taking questions from you



## IMPORTANT JUDGING DATES:

- ▶ Student registration closes March 4, 2025
- ▶ Students' last day for project submission is March 7, 2025
- ▶ Merit Judges receive their assignments March 16-17, 2025
- ▶ Merit Judging at Hillfield Strathallen College, Hamilton, Friday March 21, 2025
- ▶ Open house, Saturday March 22, 2025, 9am- 12pm
- ▶ Awards night at Mohawk College Auditorium, Tuesday March 28, 2025, 7 – 9 pm



## ROLES OF MERIT JUDGES

- ▶ Assist in the selection of projects that receive awards and medals
- ▶ Be a Role model for your chosen career, area of study
- ▶ Promote STEM education and careers
- ▶ Encourage students to continue their interest in science and engineering



# Judges Resources

- ▶ Event schedule – includes judging times <https://www.basef.ca/calendar/>
- ▶ Description of student project levels and divisions <https://www.basef.ca/levels-and-divisions/>
- ▶ Judging form <https://www.basef.ca/wp-content/uploads/Judging/2024-Merit-Judging-Form-FINAL.pdf>
- ▶ Under the “Getting Started” header you will find all the resources available to students organized by their level
- ▶ Project resources list. - gives support to all students and their parents and teachers <https://www.basef.ca/project-resources/>
- ▶ Eligibility rules are listed at <https://www.basef.ca/eligibility-rules/>

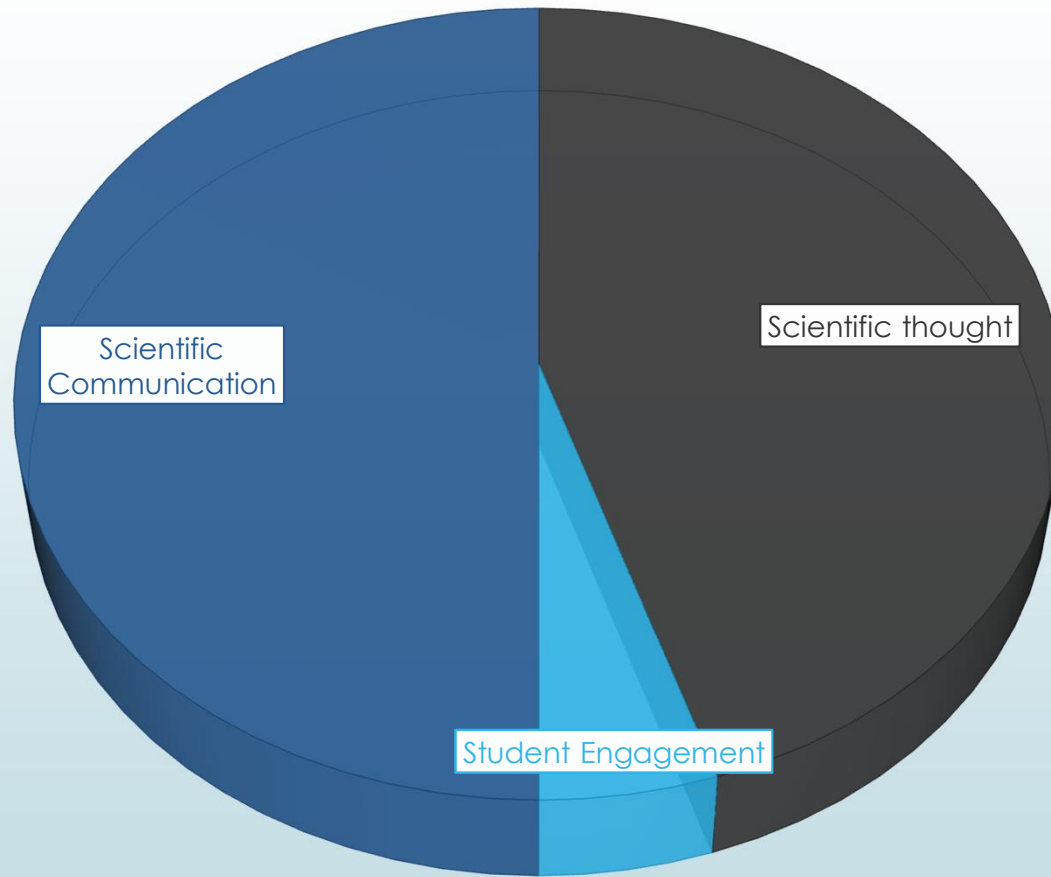
*FYI – the 2025 Fair limit is 14 projects per school per level.*



# Evaluation Criteria Score

Criterion 1 – Scientific thought	/ 45
Criterion 2 – Student Engagement	/ 5
Criterion 3 – Scientific Communication	/ 50
Score TOTAL	/ 100





## CRITERIA 1 – Scientific Thought

Use the rubric provided to determine the score of the project by matching the description with the project.

*Select whether the project is either an experiment, study, or innovation.*

- **Experiment** Investigation undertaken to test one or more hypotheses.

- **Study** A collection and analysis of data showing evidence of a correlation, or pattern of scientific interest.

- **Innovation** The development and evaluation of models or innovative devices, using approaches from the field of technology or engineering.

*Judges will consider the Full Project Report as well as the overall impression.*

**Level 1** (acceptable)

**Level 2** (fair)

**Level 3** (good)

**Level 4** (excellent)

**RATING: /45**

<b>Criterion 1 – Scientific Thought</b>			45 Points Available	Score
First, select whether the project is either an experiment, study, or innovation. Refer to rubric below to determine the level of the project by matching the description with the project.			<b>45</b>	
<b>Experiment</b>	<b>Innovation</b>	<b>Study</b>	<b>Score</b> (Circle One)	
Investigation undertaken to test one or more hypotheses.	The development and evaluation of models or innovative devices using approaches from fields of technology or engineering.	A collection and analysis of data showing evidence of a correlation, or pattern of scientific interest.		
<i>Below Level 1 – Low</i>				
Does not adequately meet the Level 1 criteria.	Does not adequately meet the Level 1 criteria.	Does not adequately meet the Level 1 criteria.	15 16 17 18 19 20	
<i>Level 1 – Acceptable</i>				
Duplication and reporting of an experiment to test a previously confirmed hypothesis.	Building models or other devices that duplicate existing technology; minimal reporting	Study and presentation of printed material related to the basic issue	21 22 23 24 25 26	
<i>Level 2 – Fair</i>				
Extension of a known experiment through modification of its procedure, data collection, analysis or application.	Make improvement to an existing technology or use an existing technology for new applications.	Study of material collected through compilation of, or expansion of, existing data. The study attempts to address a specific issue.	27 28 29 30 31 32	
<i>Level 3 – Good</i>				
A new/modified approach to the design, or application of an existing experiment with control of some variables.	Design and built an innovative adaptation of an existing technology for a new application.	Study based on new observations and research of a previously studied topic. Appropriate analysis of data and correlations made.	33 34 35 36 37 38	
<i>Level 4 – Excellent</i>				
A new experimental approach to a research problem in which most of the significant variables are controlled.	Built a novel technology or integrate technologies to form an innovative system that has commercial or human benefit.	A new approach which correlates information from a number of sources. The report also offers new insights or solutions to the problem.	39 40 41 42 43 44 45	

## CRITERIA 2 –

<b>Criterion 2 – Student Engagement</b>	<i>5 Points Available</i>	<i>Score</i>		
This criterion assesses the extent to which the student(s) engages with the project and makes it their own. Personal engagement may be recognized by how students address their personal interests, show evidence of independent motivation, thinking, creativity or initiative in the designing, implementation and presentation of the investigation.		<b>5</b>		
<ul style="list-style-type: none"><li>• Is it evident that the student(s) have gained a deeper understanding of the topic?</li><li>• Does the student(s) show passion for their topic?</li></ul>	<i>Circle the number of points awarded.</i>	0	1	2
		3	4	5

## CRITERIA 3 –

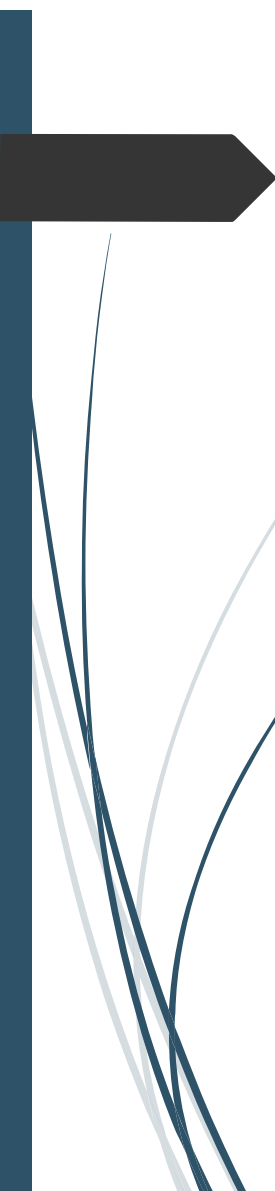
<b>Criterion 3A – Oral Communication (Interview)</b>		<i>Circle the number of points awarded.</i>		
In your conversation with the student(s):	(20 Points Available)	<i>Below Level 1 – Low:</i>	8	9 10
<ul style="list-style-type: none"> <li>• Is the project well explained/ summarized?</li> <li>• Can they clearly articulate the scientific process and use appropriate scientific language?</li> <li>• Can they speak about things not included in the abstract and report?</li> <li>• Do they identify a practical application for their work?</li> <li>• Can they answer questions about their project coherently and show a strong understanding of their work?</li> <li>• Can they suggest and explain how to improve, extend and/or change their investigation?</li> </ul>		<i>Level 1 – Acceptable:</i>	11	12 13
		<i>Level 2 – Fair:</i>	12	13 14
		<i>Level 3 – Good:</i>	15	16 17
		<i>Level 4 – Excellent:</i>	18	19 20
<b>Criterion 3B – Written Communication (Formal Report, Display, Journal/Diary)</b>		<i>Circle the number of points awarded.</i>		
<b>Formal Report</b>				
		(15 Points Available)	<i>Below Level 1 – Low:</i>	5 6 7
Does the information included in the formal report contain:			<i>Level 1 – Acceptable:</i>	7 8 9
<ul style="list-style-type: none"> <li>• Introduction/background and purpose; hypothesis/research question; materials and methods; data and results; conclusions/analysis; acknowledgements; references?</li> </ul>			<i>Level 2 – Fair:</i>	9 10 11
Does the abstract:			<i>Level 3 – Good:</i>	11 12 13
<ul style="list-style-type: none"> <li>• Summarize the project in a complete, concise, and accurate manner?</li> </ul>			<i>Level 4 – Excellent:</i>	13 14 15
<b>Display</b>				
		(10 Points Available)	<i>Below Level 1 – Low:</i>	3 4
<ul style="list-style-type: none"> <li>• Is the content clearly and logically presented?</li> <li>• Does it summarize all the important facts?</li> <li>• Is the layout complete, logical and self-explanatory?</li> <li>• Does it capture attention and have impact? Is there good balance and use of contrasts?</li> <li>• Does it contain visuals as well as text? Are graphs and tables properly formatted?</li> <li>• Is workmanship neat and carefully done: no spelling or grammatical errors?</li> </ul>			<i>Level 1 – Acceptable:</i>	5 6
			<i>Level 2 – Fair:</i>	6 7
			<i>Level 3 – Good:</i>	7 8
			<i>Level 4 – Excellent:</i>	9 10
<b>Journal/Diary</b>				
		(5 Points Available)	<i>Below Level 1 – Low:</i>	1
Does the journal/ diary or notebook show evidence of:			<i>Level 1 – Acceptable:</i>	2
<ul style="list-style-type: none"> <li>• Initial brainstorming on possible problems/questions to explore?</li> <li>• Experimental planning and a record of how/when the work was done?</li> <li>• A record of data collected?</li> <li>• Any obstacles and problems encountered?</li> </ul>			<i>Level 2 – Fair:</i>	3
			<i>Level 3 – Good:</i>	4
			<i>Level 4 – Excellent:</i>	5

# Judges Comments

## Sharing your thoughts matters

- **Overall Impressions:** Please add any comments or impressions that you have about the project which you found particularly compelling.
- **Areas for Improvement:** Explain how the participants could have scored higher. Your comments may be used to provide feedback to the judging committee and to participants who ask for tips to improve a project.





### Judges' Comments

Use this section to jot down notes about the project. Please consider the following:

- Overall Impressions— *Add any comments or impressions that you have about the project, which you found particularly compelling.*
- Areas for Improvement— *Explain how the participants could have scored higher. Your comments may be used to provide feedback to the judging committee and to participants who ask for tips to improve a project.*
- Remember— *All judges' marks must be kept confidential. However, BASEF may choose to share your comments with the student(s) to celebrate their work or help them identify areas of improvement.*

**Remember** – as a Merit Judge you represent professional authority. Therefore, it is imperative that you conduct yourself in an appropriate manner. Questions, suggestions and comments made should always provide encouragement for continued effort.



No Scientific research is totally original.

As a Merit Judge you are asked to give attention to the individual contribution by the student.

They should be neither penalized nor rewarded for receiving help that is properly acknowledged.





Be consistent with your scoring – every judge scores a little differently, however, by being familiar with our scoring sheet we hope to minimize those differences between judges and more accurately score the projects.



## Where to begin....

- ▶ Review your assigned projects- any conflicts?
- ▶ On the day – become familiar with the layout of the projects
- ▶ Morning judging – the purpose is to become familiar with all aspects of the project being presented. There is no schedule times for the morning.
- ▶ Afternoon judging – Interview the students, ask them questions about their research, design and findings. Follow the schedule times in the afternoon.
- ▶ Recording – once all marks are tabulated you will be given a secure link to record all your marks and comments.

NOTE – all judging is be done independently.

You are encouraged to discuss the projects with your fellow judges and category chair over lunch and at the end of the day.

## The Judges Project Sign-In Sheet



Each project has a Judges Sign-In Sheet.  
Please initial each project sheet twice – once in the morning  
and again in the afternoon.

## Judging assignment – Assigned projects & Submitting marks



# Day of Judging

## **What to Wear?**

- ▶ Dress casual/ office attire
- ▶ Comfortable shoes
- ▶ Bring a sweater

## **What to Bring?**

- ▶ Pencil and pens (calculator)
- ▶ Ipad, cell phone (to input scores)
- ▶ Watch ( or use your cell phone)
- ▶ Clipboard if possible

Plan on arriving by 8 am.

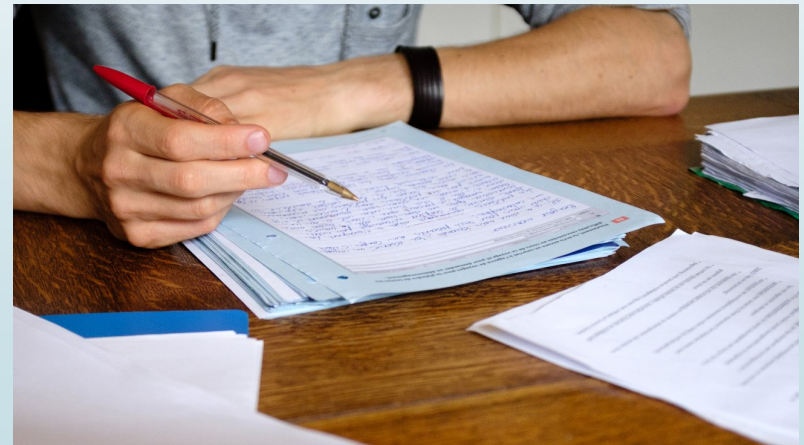
There will be a registration area – find your package.

In it will be a name badge to be worn at all times, judging sheets and general information sheet. Find your Group table (located beside your name on your envelope) and introduce yourself to your Category Chair.

## Judging Hints....

- ▶ From the Judge in Chief and Judging Committee ....
- ▶ From others.....
- ▶ Criteria missing? ... what to do....

Remember what you say to the students will be remembered and quoted!



# Confidentiality of Information





## ZOOM Q & A

- Over to you... what questions, concerns or comments do you have?



# Thank you!

- ▶ Students finalists overwhelmingly say that the most significant interactions that they have at the fair are with the judges.
- ▶ Likewise, judges find their discussions with these outstanding students to be positive and uplifting experiences.
- ▶ Ideally students grow academically and personally from their experience at BASEF.

