

IAN BAILLIE STEM FAIR



All Students in Grades 2, 3, and 4 are required to prepare and present a STEM FAIR Project. Students in Kindergarten and Grade 1 are also welcome to prepare and present a project. Projects will be done at home (alone or with a partner) and presented in the gym on *Thursday April 7th*, *2016*. Winners will be selected to represent Ian Baillie at the District STEM Fair in Nelson on Thursday April 14th. This guide will help you!

Choose ONE of the two types of STEM Fair projects			
A TESTABLE QUESTION	AN INVENTION OF MY OWN		
(More Traditional Science Fair Model - Replicate)	(More flexible Presentation Model- Create &Test)		
Have you ever wondered about how to make	Do you have a problem in real life that you want		
something faster, stronger, brighter, more	to solve? Your solution can be high tech or low		
absorbent, or dissolvable? Satisfy your curiosity	tech as long as it solves your problem!		
CHOOSE A QUESTION	CHOOSE A PROBLEM		
-Which boils faster salt water or tap water?	- My sister secretly goes into my drawer!		
	- Teacher Approved Choice. Have a		
parent/guardian help you find a question that fits.	parent/guardian help you find a problem that you		
	can help solve with an invention.		
GET READY TO RECORD & PRESENT	GET READY TO RECORD & PRESENT		
Use the Scientific Method	Use Design, Evaluate, & Redesign		
Question: How does one thing affect another?	Problem: What are you going to solve?		
Hypothesis: If (What you are going to make	Purpose: I designed (invention) so If (problem		
<u>happen),</u> then I predict <u>(What you think the result</u>	<u>occurs)</u> then <u>(what invention will do)</u> and <u>(how</u>		
<u>will be)</u> because <u>(the reason you think)</u> .	problem is solved).		
Materials: The amount of each item used.	Materials: The amount of each item used.		
Procedure: Number and describe the step	Design: Blueprints, sketches, and methods used		
Data: display your results in a table or graph	to build you prototype.		
Conclusion: Did the data support your	Test: Is it like you designed? Does it work?		
prediction?	Evaluate: What adjustments must be made?		
Reflection: Successes, problems, surprises,	Redesign: What did you add or subtract?		
questions, if I did it again.	Conclusion: Did the data support your		
	prediction?		
	Reflect: Successes, problems, surprises,		
	questions, if I did it again.		
	A TESTABLE QUESTION (More Traditional Science Fair Model - Replicate) Have you ever wondered about how to make something faster, stronger, brighter, more absorbent, or dissolvable? Satisfy your curiosity here! CHOOSE A QUESTION -Which boils faster salt water or tap water? -Teacher Approved Choice. Have a parent/guardian help you find a question that fits. GET READY TO RECORD & PRESENT Use the Scientific Method Question: How does one thing affect another? Hypothesis: If (What you are going to make happen), then I predict (What you think the result will be) because (the reason you think). Materials: The amount of each item used. Procedure: Number and describe the step Data: display your results in a table or graph Conclusion: Did the data support your prediction? Reflection: Successes, problems, surprises,		

IMPORTANT CONSIDERATIONS!

- **SAFETY** Open flames, heat, live animals, or even open peanut butter will not be permitted!
- <u>Electricity</u> We will be setting up on tables in the gym. Chances are you will not have access to a plug or extension cord! If your project needs power for a lamp, fan, etc make sure its battery powered or you will be out of luck!
- <u>Presentation</u> You will need to explain your project in an organized fashion. Use what will help you remember to say everything! You can use a traditional project board, a slide show on a computer (see electricity), or just a soapbox and a big voice!
- <u>Partners</u> you are allowed to work with a partner, but everyone has very busy schedules! Make sure you can schedule common times to work together so that one person doesn't do all the work! If you or a friend are booked every night with swimming, Karate, time travel, hockey, guides, etc then you may want to work on your own.
- For more resources including planning guide and judging rubrics check out the ASD-N website: http://stemnorth.nbed.nb.ca/

Dear Parents/Guardians

Please take the time to discuss this project, the commitment required, and help choose a project type and topic with your child. Topic Choices are due no later than *Friday March 18*th and projects are completed at home and due at school for *Thursday April 7*th, *2016*.

Students Name:	Partners Name or Alone:	
Project Topic:	Parent Signature:	

Project Name:	=	#
Judge:		

	Criteria	3	2	1	Score:
	e Big Question or Problem	Clear topic guided by curiosity or necessity.	Clear topic and logical layout.	"I made this."	
Skills	Testable:	More than 1 redesign explained/evident/ Presented/demo.	Product design, evaluate and redesign.	No blueprint or plan, just a product.	
	Invention:	More than 1 trial. Good use of graphs and tables.	Scientific method followed.	Parts of method are missing.	
(Organization	Information was complete, visually pleasing. Time and care was used.	Layout is logical and self explanatory. Information is complete.	Out of order, missing key parts.	
Th	e Presentation	Does not need the materials, but uses them to illustrate points.	Materials/ demonstration/ pictures, guide their rehearsed speech.	"I'm seeing this for the first time too!"	
Interview		Comfortable and confident answering questions. Evidence of student learning.	Understands and attempts answers.	Cannot answer questions.	

	Total:	/13
Judges notes:		