Project Number: 20102 **Project Title:** Which Bear is Best?

JUDGES: Use this rubric to assign a **Level (1, 2, 3, or 4)** to **Parts A, B, and C** for the project.
***** ½ marks are acceptable. Students will only see the feedback portion, NOT the scores.*****

PART A: SCIENTIFIC THOUGHT

EXPERIMENT: Undertake an investigation to test a scientific hypothesis using the experimental method. At least one independent variable is manipulated; other variables are controlled.

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Replicate a known experiment to confirm previous findings.	**Extend a known experiment** with modest improvements to the procedures, data gathering and possible applications.	Devise and carry out an **original experiment.** Identify the significant variables and attempt to control them. Analyze the results using appropriate arithmetic, graphical or statistical methods.	Devise and carry out **original experimental research** in which most significant variables are identified and controlled. The **data analysis is thorough and complete.**

PART B: ORIGINALITY & CREATIVITY

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
The project design is **simple** with little evidence of student imagination. It can be found in books or magazines.	The project design is simple with **some evidence of student imagination**. It uses common resources or equipment. The topic is a current or common one.	This **imaginative** project makes creative use of available resources. It is well thought-out and some aspects are **above average**.	This **highly original** project demonstrates a novel approach. It shows **resourcefulness** and **creativity** in its design, use of equipment, construction and/or analysis.

PART C: COMMUNICATION

Part C is based on 4 elements: visual display + oral presentation + project report with background research + logbook

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Most or all of the four elements are **simple**, **insubstantial** or **incomplete**. There is little evidence of attention to effective communication. In a pairs project, one member may have **dominated** the presentation.	**Some** of the four elements are **simple**, **insubstantial** or **incomplete**, but there is **some evidence** of student attention to effective communication. In a pairs project, one member may have made a **stronger** contribution to the presentation.	**Most** of the four elements are **complete** and **demonstrate attention to detail and substance**. The communication components are well thought out and executed. In a pairs project, both members made an **equitable** contribution to the presentation.	All elements are complete and **exceed reasonable expectations** of a student at this age/grade. The visual display is logical and self-explanatory. The exhibit is attractive and well laid out. Both project report and logbook are informative and written clearly; the bibliography extends beyond web-based articles. The oral presentation is clear, logical, and enthusiastic. In a pairs project, both members contributed **equitably** and **effectively** to the presentation.

PART A SCIENTIFIC THOUGHT (1 – 4)	PART B ORIGINALITY & CREATIVITY (1 – 4)	PART C COMMUNICATION (1 – 4)	= TOTAL SCORE (max. 12)
3.5	3	3.5	10

Should this project advance to GVRSF? ☒ YES ☐ NO ☐ MAYBE

Notes (will not be seen by students):

good oral presentation, but also wouldn't stop talking about beets (unrelated?)

Project #: 20102 **Category:** EXPERIMENT

Name(s): D. Schrute **School:** DMFFLN

JUDGES FEEDBACK FOR STUDENTS

Students will receive this portion after the fair. Please leave comments!

What was done well:

- well-spoken and knowledgeable about the topic
- careful consideration of experimental variables
- content on display board is well laid out and informative
- detailed logbook

Areas to Improve:

- more trials needed
- consider using statistical software to analyse data

Quick alerts: If this project were to be revised, focus on…

- ☐ personal knowledge of subject
- ☐ background research on the topic
- ☐ experimental design
- ☐ use of control group
- ☐ identification of variables
- ☐ choice of materials/chemicals
- ☒ care & precision of observations
- ☒ care & precision of data recording
- ☐ application & synthesis of information
- ☐ level of difficulty vs. your age & training
- ☐ display of data
- ☒ analysis of data
- ☐ oral presentation
- ☐ display board
- ☐ construction & design
- ☐ attention to detail
- ☐ processes used
- ☐ sources of error

Other Comments (fold along dotted line & use other side as needed):