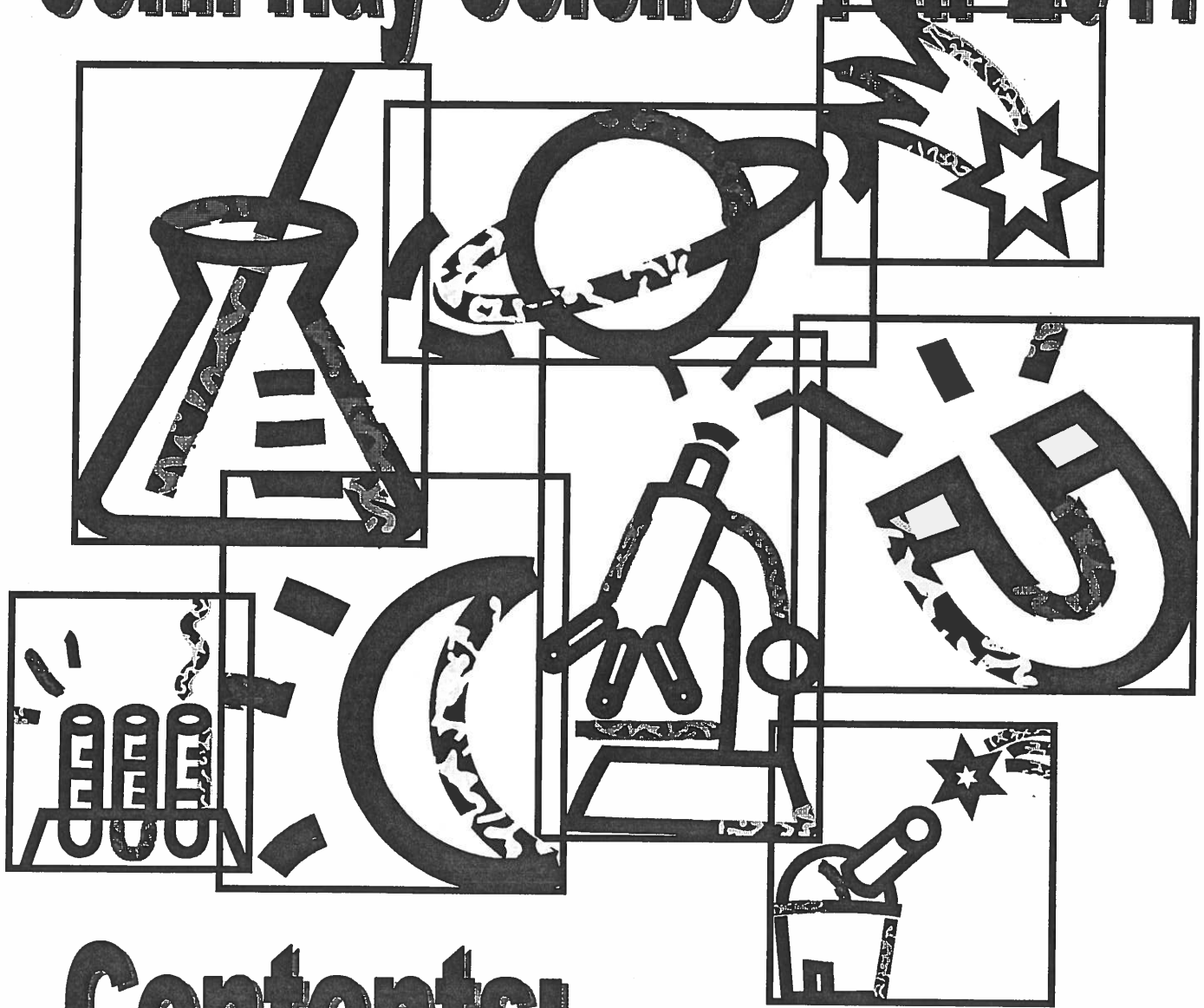


John Hay Science Fair 2017



Contents:

- ① Information and Overview
- ① Scoring Rubrics
- ① Science Fair Project Checklists
- ① Suggested Timeline for Project Completion
- ① Student Contract—due before April 28, 2017

John Hay Science Fair 2017

Thursday, June 1, 2017 🕷 6:30—8:00 pm

Information and Overview

Participation:

- Read through this packet and turn in a signed participant contract by April 28, 2017 to enter.
- Students can work as individuals or in pairs. Pairs must be in the same grade level, but can be in different classes.
- Science fair projects are to be completed at home and should not interfere with classroom work expectations.



Guidelines:

Choose one of the three science standards for your project. Each project type has its own student checklist and scoring rubric.

1—INQUIRY (K-5th)

This type of project, called a Fair Test in the primary grades and a controlled experiment in intermediate grades, involves conducting an experiment to answer a scientific question.

2—SYSTEMS (4th-5th)

This type of project analyzes how parts of a system work together and how energy moves through and changes within the system.

3—PROBLEM/SOLUTION (2nd-5th)

With problem/solution, students research, investigate, and report results of scientific solutions to problems.

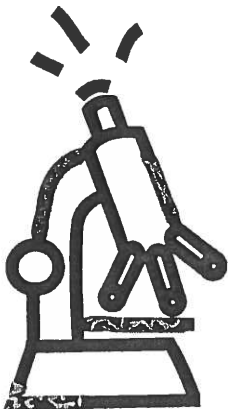
In order to be eligible for judging, it must be clear that the project was completed primarily on KID-POWER. Parents should only assist and support. Please be sure to set up clear expectations with your child about how you can/cannot help with the project to ensure that it is in fact KID POWERED!

Scoring:

- Each student will receive a participant ribbon
- Each grade level will have a project that wins a Blue (1st), Red (2nd) and White (3rd) place ribbon.
- **The Scoring Rubric will be used** by teams of teachers to score the projects and award 1st, 2nd, and 3rd place ribbons. If all items from the checklist/rubric are not included, projects will not be considered for a placing ribbon.
- *Report style science fair projects will not be eligible for a placing ribbon, and will only be awarded a participant ribbon.*

Project Management:

- Projects can be delivered with your child the morning of the science fair, or dropped off later in the day. All projects must be at school by 3:00pm on June 1st.
- On the evening of the fair, all projects must be taken home immediately following the close of the evening, as no storage of projects will be available. Any remaining projects may be discarded. Please make arrangements.



Student Checklists

Controlled Experiment (Fair Test) K-5th

<input type="checkbox"/>	My Experimental Question is in large, clear lettering
<input type="checkbox"/>	I have made a prediction that is based on evidence from prior learning or experience
<input type="checkbox"/>	I listed the procedure used for the experiment including logical steps and materials needed
<input type="checkbox"/>	I listed the variables in the experiment: Controlled (kept the same), Manipulated (changed) and Responding (measured)
<input type="checkbox"/>	I repeated the trial at least 3 times and stated that this is necessary for <i>reliable results</i>
<input type="checkbox"/>	I clearly organized my data table with observational and/or numeric data. It is clear and easy to read
<input type="checkbox"/>	I wrote a conclusion that answers the experimental question using evidence from my data
<input type="checkbox"/>	I thoughtfully included clear visual aids such as pictures and diagrams to communicate my experiment
<input type="checkbox"/>	My work is neat and shows outstanding effort
<input type="checkbox"/>	My work is clearly “kid generated,” and appropriate for my grade level and ability

System 4th & 5th

<input type="checkbox"/>	I clearly listed/labeled the parts of the system
<input type="checkbox"/>	I indicated the function of the system
<input type="checkbox"/>	I explained the input(s) of the system
<input type="checkbox"/>	I explained the output(s) of the system
<input type="checkbox"/>	I explained the energy transfer and/or energy transformation in the system
<input type="checkbox"/>	I included a large, clear diagram of the system showing the information above
<input type="checkbox"/>	I have other visual aids (such as 3-D models, working systems, or alternative view diagrams) that help explain the system
<input type="checkbox"/>	I gave the definition of a system— <i>group of parts working together to perform a function with input(s) and output(s) of energy and matter</i> on my board
<input type="checkbox"/>	My work is neat and shows outstanding student effort
<input type="checkbox"/>	My work is clearly “kid generated,” and appropriate for my grade level and ability

Problem/Solution 2nd-5th

<input type="checkbox"/>	I defined the problem in large, clear lettering
<input type="checkbox"/>	I shared research about the problem
<input type="checkbox"/>	I included possible ideas through a brainstormed list
<input type="checkbox"/>	I chose the best idea for a plan and created a Plan Summary
<input type="checkbox"/>	I listed the steps involved in my plan
<input type="checkbox"/>	I created a diagram of the solution to the problem
<input type="checkbox"/>	I have either tested the solution or written about how I would test the solution
<input type="checkbox"/>	I explained what the test results mean or would mean to the problem
<input type="checkbox"/>	My work is neat and shows outstanding effort
<input type="checkbox"/>	My work is clearly “kid generated,” and appropriate for my grade level and ability

Scoring Rubric

Controlled Experiment (Fair Test) K-5th

Student has stated the Experimental Question in large, clear lettering	
Student has made a prediction based on evidence from prior learning or experience	
Student has listed the procedure used for the experiment including logical steps and materials needed	
Student has listed the variable in the experiment: Controlled (kept the same), Manipulated (changed) and Responding (measured)	
Student has repeated the trial at least 3 times and states that this is necessary for <i>reliable results</i>	
Student has a clearly organized and easy to read data table with observational and/or numeric data	
Student has written a conclusion that answers the experimental question using evidence from their data	
Student has thoughtfully included clear visual aids such as pictures and diagrams to communicate their experiment	
Work is neat and shows outstanding student effort	
Work is clearly "kid generated," and appropriate for grade level and student ability	

Total _____/100

System 4th & 5th

Student has clearly listed/ labeled the parts of the system	
Student has indicated the function of the system	
Student has explained the input(s) of the system	
Student has explained the output(s) of the system	
Student has explained the energy transfer and/or energy transformation in the system	
Student has included a large, clear diagram of the system showing the information above	
Student has other visual aids (such as 3-D models, working systems, or alternative view diagrams) that help explain the system	
Student has supplied the definition of a system— <i>group of parts working together to perform a function with input(s) and output(s) of energy and matter</i>	
Work is neat and shows outstanding student effort	
Work is clearly "kid generated," and appropriate for grade level and student ability	


Total _____/100

Problem/Solution 2nd-5th

Student has defined the problem in large, clear lettering	
Student shows research about the problem	
Student has explored possible ideas through a brainstormed list	
Student has chosen the best idea for a plan and created a Plan Summary	
Student has listed the steps involved in their plan	
Student has created a diagram of the solution	
Student has either tested the solution or written about how they would test the solution	
Student explains what the test results mean or would mean to the problem	
Work is neat and shows outstanding student effort	
Work is clearly "kid generated," and appropriate for grade level and student ability	

Total _____/100

Suggested Timeline

	Tasks to Complete
March 31—April 6	<input type="checkbox"/> Read your packet with your parents <input type="checkbox"/> Decide on a type of project <input type="checkbox"/> Brainstorm a basic plan of action <input type="checkbox"/> Sign the contract and return it to your teacher <input type="checkbox"/> Begin gathering resources and materials 
April 7-21	<input type="checkbox"/> Do your research and take notes <input type="checkbox"/> Decide on your experimental question, system, or problem and create your plan in detail. Determine how many weeks or days you will need for your experiment. <input type="checkbox"/> Begin your experiment, if needed.
April 24-May 12 ALL contracts due by April 28th	<input type="checkbox"/> Turn in your signed contract if you have not. <input type="checkbox"/> Begin your first draft of the writing <input type="checkbox"/> Begin gathering your visuals <input type="checkbox"/> Begin making your 3-D model if needed <input type="checkbox"/> Continue conducting your experiment. Remember to run at least 3 trials to show reliability. <input type="checkbox"/> Buy or make your backboard for your display
May 15—May 26 Less than 2 weeks to go!!	<input type="checkbox"/> Edit and revise your writing. Be sure to have your parents check your writing for correct conventions and accuracy of information. <input type="checkbox"/> Continue your experiment <input type="checkbox"/> Design your data table to display your results <input type="checkbox"/> Write your final draft of any writing to be included. If you are putting your writing on your board, use a font size 24 or larger. <input type="checkbox"/> If you've done an experiment, begin to gather your results and record them on the data table. <input type="checkbox"/> Finish your 3D model <input type="checkbox"/> Write your conclusion (investigation only)
May 29-31	<input type="checkbox"/> Finish up your backboard display. Refer to the rubric to be sure you meet the criteria. <input type="checkbox"/> Check that you have displayed your findings and information <input type="checkbox"/> Accent your board with decoration and color <input type="checkbox"/> Be sure you put <u>your name</u> in big, bold letters!
June 1, 2017 The Science Fair!	<input type="checkbox"/> Bring your project to school (before 3pm) <input type="checkbox"/> Come to the Science Fair at 6:30 pm! <input type="checkbox"/> Take your project home at the conclusion of the evening.

Home-School Science Fair Contract

Due no later than April 28, 2017

Student Name _____ Date _____

Grade _____ Room # _____ Teacher _____

Student Statement: I _____ am planning on entering a project in the John Hay Science Fair on June 1, 2017.

- I have read the packet and understand how my project will be judged
- I understand that I must do my own work, and should only ask an adult for guidance and/or editing help.
- I understand that I have agreed to do the project and I must honor my commitments by completing the work on time.
- I understand that I may work with one partner or on my own.

Student Name **X** Signature Date

Parent Statement: I _____ understand that my child has committed to developing and creating a project for this year's science fair, and I am a support person for my child.

- I have read and understand the scoring guidelines
- I understand that while I can support my child, that the project should be "Kid-Powered." It should be clear that my child completed the project.

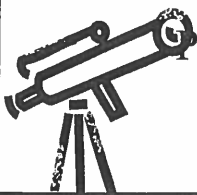
Parent name **X** Signature

I am available to help with set up from 2:00-3:30pm on the day of the fair.

Please contact me at

E-mail

Daytime phone #



Please return this form to your child's teacher by April 28, 2017



