

4 307  
**PS 150Q**

40-01 43<sup>rd</sup> Avenue \*Sunnyside, New York 11104

\*FAX: 718-729-7823

PS150sunnyside/[WWW.ps150q.org](http://WWW.ps150q.org)

\*TEL. 718-784-2252

Carmen Parache, Principal  
Zulma Tanzer, Assistant Principal

Erin Meizlik, Assistant Principal, IA  
Milton Josephs, Assistant Principal, IA

March 2017

Dear Parents/Guardians,

Believe it or not, it's time to start thinking and planning for this year's Science Fair! This year, the Science Fair will be held on **May 17<sup>th</sup>, 2017** in the Gymnasium for public viewing during the Elementary School Upcoming Orientation. It's time to encourage our students to begin thinking about their projects and potential testable questions to investigate.

Please take note of some important information in this packet:

- Science Fair Timeline (Suggested Student Schedule)
- P.S. 150 Sample Display Board
- Student Rubric (smiley faces on top)
- Project Description Form
- Review/Project Ideas

Each teacher will be selecting 3-4 projects that reflect an overall level 4 to be exhibited at the Science Fair. Please note that although all projects cannot be selected or physically fit in the gym for the Science Fair, each teacher will be celebrating the completion of all projects.

These projects are meant to be inquiry-based, meaning students are developing experiments to answer questions of interest to them. **We are not looking for models or demonstrations.** *There will be a parent information meeting about the science fair projects on March 27<sup>th</sup> at 8:30AM in the cafeteria.* We are very excited for yet another successful, fun and educational Science Fair. Thank you for your ongoing support.

Enthusiastically,

Ms. Vackner and Ms. Lanchez  
Science Teachers





## PROJECT TIME-LINE

Question and Purpose	Friday, March 31
Hypothesis, Research/Sources	Friday, April 7
Procedure and Materials	Friday, April 21
Experiment, Data, Results, and Conclusions	Friday, April 28
<b><u>* Completed Display Board to School</u></b>	Friday, May 5
In-Class Presentation	Mon., May 8 - Fri., May 12
Collection of Boards (Level 3+ and 4) to Gym	Tuesday, May 16
Science Fair	Wednesday, May 17

Science Fair Publishing Party – TBD in each classroom at teacher's discretion

Please tear off the bottom of this paper and return to your child's teacher.

---

I have reviewed the Science Fair packet with \_\_\_\_\_  
(Student's name)

and he/she understands that the project needs to be completed and brought to school by **Friday, May 5, 2017.**

Parent's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



P.S. 150 Q  
Display Board Layout

Text should be  
at least 16 points.

Include pictures of  
yourself doing the  
experiment!

Size:  
36" tall by 48" wide

Vocabulary  
with definitions  
Materials:  
Procedure  
1.  
2.  
3.  
4.  
5.

Title ←

Testable Question

Hypothesis

Purpose

Research

Constant / Variables

Results  
Graphs, Charts,  
Photos

Conclusion

References

The title should  
grab people's  
attention.

The title  
should be  
BIG!

Important  
→

In your conclusion,  
discuss your  
hypothesis, data  
learned through  
research and new  
testable  
questions.

\* Your name, your teacher's name  
and class should be written  
on the back of the display  
board. ↘



# P.S. 150 SCIENCE FAIR PROJECT RUBRIC / EVALUATION FORM

Student Name (s) : \_\_\_\_\_

Class \_\_\_\_\_

Title of Project \_\_\_\_\_

Date: \_\_\_\_\_

	4 points - 😊😊😊😊	3 points - 😊😊😊	2 points - 😊😊	1 point - 😊	Points Earned
<b>Problem and Prediction</b>	Is my question testable and is it my own? Is my prediction clear?	Is my question testable? Did I make a prediction?	Do I have both question and a prediction?	Do I have a question or a prediction?	
<b>Purpose</b>	Did I write and include many details as to why I chose this experiment?	Did I write and include several details as to why I chose this experiment?	Did I write and include some details as to why I chose this experiment?	Did I write as to why I chose this experiment?	
<b>Research/References</b>	Did I clearly list many details from my sources (books, magazines or websites)?	Did I clearly list several details from my sources (books, magazines or websites)?	Did I clearly list some details from my sources (books, magazines or websites)?	Did I list a few details from my sources (books, magazines or websites)?	
<b>Experimental Design/ Materials/Procedure</b>	Did I clearly and completely write the steps in order about how to do the experiment with many details?	Did I clearly and completely write the steps in order about how to do the experiment with several details?	Did I write the steps about how to do the experiment with some details?	Did I write any steps on how to do the experiment?	
<b>Results</b>	In addition to photos and diagrams, have I included data represented by charts, graphs or tables shown in an organized way?	Have I included data represented by charts, graphs or tables shown in an organized way?	Have I included some data represented by charts, graphs or tables shown in an organized way?	I have included data but it is not represented by a chart, graph or table.	
<b>Conclusion</b>	Did I clearly write about what I learned using many details? Did I compare my results with my hypothesis? Did I write a new testable question?	Did I clearly write about what I learned using several details? Did I write about my hypothesis? Did I write a new testable question?	Did I write about what I learned using some details? Did I write about my hypothesis?	I wrote about what I learned using few details.	
<b>Vocabulary</b>	Did I list and apply many Scientific vocabulary words and their meanings clearly?	Did I list Scientific several vocabulary words and their meanings?	Did I list some Scientific vocabulary words?	Did I list a few Scientific vocabulary words?	
<b>Display Board</b>	Is my board neat, attractive and creative? Is spelling and grammar correct? Are graphs clearly labeled? Is the board typed?	Is my board neat, attractive, and creative? Is spelling and grammar correct?	Is my board neat, attractive and creative? There are some spelling and grammar errors.	Did I use a board to present my project? There are many spelling and grammar mistakes. The data and results are unclear.	
<b>Oral Presentation</b>	Did I clearly project my voice while presenting all the parts of my experiment using the Scientific Method?	Did I project my voice while presenting several of the parts of my experiment using the Scientific Method?	Did I project my voice while presenting some of the parts of my experiment using the Scientific Method?	I did not project my voice while presenting a few of the parts of my experiment using the Scientific Method.	

Overall Score: \_\_\_\_\_ points out of 36 points



## Science Fair Project Description Form

Student Name: \_\_\_\_\_ Class: \_\_\_\_\_

Project Title: \_\_\_\_\_

Testable Question:

---

---

---

Hypothesis:

---

---

---

Describe your project:

---

---

---

Please sign and return this paper to your teacher by **Friday, April 7, 2017.**

Student's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## Review

**Ask a Question:** The scientific method starts when you ask a question about something that you observe: How, What, When, Who, Which, Why, or Where? And, in order for the scientific method to answer the question it must be about something that you can measure, preferably with a number.

**Do Background Research:** Rather than starting from scratch in putting together a plan for answering your question, you want to be a savvy scientist using library and Internet research to help you find the best way to do things and insure that you don't repeat mistakes from the past.

**Construct a Hypothesis:** A hypothesis is an educated guess about how things work:

"If   *I do this!*  , then   *this!*   will happen."

You must state your hypothesis in a way that you can easily measure, and of course, your hypothesis should be constructed in a way to help you answer your original question.

**Test Your Hypothesis by Doing an Experiment:** Your experiment tests whether your hypothesis is true or false. It is important for your experiment to be a fair test. You conduct a fair test by making sure that you change only one factor at a time while keeping all other conditions the same. You should also repeat your experiments several times to make sure that the first results weren't just an accident.

**Analyze Your Data and Draw a Conclusion:** Once your experiment is complete, you collect your measurements and analyze them to see if your hypothesis is true or false.

Scientists often find that their hypothesis was false, and in such cases they will construct a new hypothesis starting the entire process of the scientific method over again. Even if they find that their hypothesis was true, they may want to test it again in a new way.

**Communicate Your Results:** To complete your science fair project you will communicate your results to others in a final report and/or a display board. Professional scientists do almost exactly the same thing by publishing their final report in a scientific journal or by presenting their results on a poster at a scientific meeting.

## Project Ideas

1. Do different types of apples have the same number of seeds?
2. Do different types of soil hold different amounts of water?
3. Will adding bleach to the water of a plant reduce growth?
4. Does water with salt boil faster than plain water?
5. How far can a person lean without falling?
6. Can you tell time without a watch or clock?
7. How far can a water balloon be tossed to someone before it breaks?
8. Does the shape of a kite affect its flight?
9. How long will it take a drop of food dye to color a glass of still water?
10. Does sugar prolong the life of cut flowers?
11. How much of an orange is water?
12. Which liquid has the highest viscosity?
13. Will more air inside a basketball make it bounce higher?
14. Does the color of light affect plant growth?
15. Does baking soda lower the temperature of water?
16. Which brand of popcorn pops the most kernels?
17. Which brand of popcorn pops the fastest?
18. What kind of juice cleans pennies best?
19. Do roots of a plant always grow downward?
20. Do plants grow bigger in soil or water?
21. Does the color of water affect its evaporation?
22. Can you separate salt from water by freezing?
23. How does omitting an ingredient affect the taste of a cookie?
24. Do suction cups stick equally well to different surfaces?
25. Which student in class has the greatest lung capacity?
26. How much weight can a growing plant lift?
27. Will water with salt evaporate faster than water without?
28. Does it matter in which direction seeds are planted?
29. Can the design of a paper airplane make it fly farther?
30. Do all colors fade at the same rate?



31. Which brand of diaper holds the most water?
32. In my class, who has the smallest hands – boys or girls?
33. Which kind of cleaner removes ink stains best?
34. Does a plant grow bigger if watered by milk or water?
35. Which brand of soap makes the most suds?
36. Does a baseball go farther when hit by a wood or metal bat?
37. Do living plants give off moisture?
38. Using a lever, can one student tilt another student who is bigger?
39. What gets warmer – sand or dirt?
40. Which kind of glue holds two boards together better?
41. What type of line carries sound the best?
42. Can the sun's energy be used to clean water?
43. Does a green plant add oxygen to its environment?
44. Which metal conducts heat best?
45. What percentage of corn seeds in a package will germinate?
46. Which materials absorb the most water?
47. Does the human tongue have definite areas for certain tastes?
48. Can same type balloons withstand the same amount of pressure?
49. Does the viscosity of a liquid affect the boiling point?
50. What color of birdseed do birds like best?
51. Does temperature affect the growth of plants?
52. Can you use a strand of human hair to measure air moisture?
53. What materials provide the best insulation?
54. Is using two eyes to judge distance more accurate than using one eye?
55. Do all objects fall to the ground at the same speed?
56. What plant foods contain starch?
57. What keeps things colder – plastic wrap or aluminum foil?
58. Does heart rate increase with increased sound volume?
59. Do boys or girls have a higher resting heart rate?
60. Do liquids cool as they evaporate?
61. Which way does the wind blow most frequently?

62. Does the size of a light bulb affect its energy use?
63. For how long a distance can speech be transmitted through a tube?
64. Do bigger seeds produce bigger plants?
65. What type of soil filters water best?
66. Does the color of a material affect its absorption of heat?
67. Does sound travel best through solids, liquids, or gases?
68. Do sugar crystals grow faster in tap water or distilled water?
69. How much of an apple is water?
70. What common liquids are acid, base, or neutral?
71. Do taller people run faster than shorter people?
72. Does the length of a vibrating object affect sound?
73. Who can balance better on the balls of their feet – boys or girls?
74. Does exercise affect heart rate?
75. Which dish soap makes the longest lasting suds?
76. What are the effects of chlorine on plant growth?
77. Which type of oil has the greatest density?
78. How accurately do people judge temperature?

You can find more ideas on the Internet:

- <http://www.sciencebuddies.org/>
- <http://www.all-science-fair-projects.com/>
- <http://school.discoveryeducation.com/sciencefaircentral/index.html>
- <http://www.sciencefairadventure.com/>