

Student Survey on Science Class – November 2015

Total Students surveyed = 79

Q.1. "I like science class"	Yes - 64
	No - 2
	Sometimes - 13
Q. 2. "I think science is important"	Yes - 64
	No - 1
	Sometimes - 14
<p>Q.3. "If I were the science teacher, I would make science interesting by:</p> <p><i>Analysis:</i>  <i>Our students overwhelmingly want to do hands-on activities, experiments and projects.</i>  <i>There is some misunderstanding about what constitutes science (potions, chemicals, time machine, explosions/bombs) but overall, their suggestions are all fairly reasonable.</i></p> <p><i>We now plan to tweak exit survey to ask if their teacher has made science interesting this year, and how.</i></p>	Doing lots of experiments - 35
	Make chemicals - 6
	Doing projects - 6
	Explosions - 5
	Having fun - 5
	Going outside - 4
	Making potions - 4
	Going on field trips - 4
	Making rockets - 3
	Doing volcanoes - 3
	Flying a plastic plane outside - 2
	Making paper airplane - 2
	Going on a plane - 2
	Show more Bill Nye videos - 2
	Mixing things together - 2
	Have more classes outdoors
	Make a time machine
	Make a tornado in a bottle
	Take a time-lapse of a plant growing
	I would do science once a month
	Having timed memory games
	Get people to look at worms
	Do projects, no experiments
	Build bridges
	Helping my students with things they don't understand
	Make a hoverboard
	Use magnets
	Drawing science pictures in science
	Games
	Making a bomb of sprinkles and pink
Making robots	
Using lots of expression	
Explain things really well	
Modelling things while I explain them	
Doing space models	
Doing flying and electricity	
Fly a plane to teach how the plane works	

Q.4. "List three things you learned in science class this year"

Analysis:

Grade 4 students are very familiar with the concepts covered in the first units of Science. Grade 3 students show a fair understanding of the soil unit.

The Grade 6 field trip clearly had a huge impact on their science learning.

Many students do not seem to grasp the difference between what they did and what they learned (dioramas)

This question may be re-worded to "three facts you learned in science this year" for the exit survey.

Carnivores, Omnivores, Herbivores - 17

Food chains and food webs - 17

Habitats - 10

Drag - 8

Lift - 7

Beavers - 7

Worms eat many things - 7

Thrust - 6

How planes work - 6

Parts of a plane - 6

Aerodynamics - 4

Inventors of planes - 4

Dioramas - 4

There are a lot of planes - 3

Soil has different components - 3

How to make a rocket - 3

That Amelia Earhart flew solo - 3

Forces of flight - 3

Gravity - 2

Air exerts pressure - 2

Drag slows you down - 2

Gravity pulls you down - 2

Jet stream - 2

How flight has changed over time - 2

How to fly - 2

Animals - 2

We saw the worms - 2

We gave the worms food - 2

Worms make compost - 2

There are many kinds of soil - 2

How beaver dams are made - 2

How to fly - 2

Life cycles

We learned about science

That frogs are carnivores

Grasshoppers eat grass

What animals eat

We touched the worms

I learned about compost

Worms eat organic matter

Predator and prey

Worms are cool

Food gets mouldy after a while

Worms dry up in the sun

Worms can drown in water

Worms can dig far down

Soil is important

I learned about worms

	Producers and consumers
	There are no rabbits in Newfoundland
	Chris Hadfield
	It is way more interesting
	To be smart
	By working hard and paying attention
	How blimps are made
	What is in a cockpit
	Four forces
	Plane crashes
	How to navigate a plane
	Air path
	Rosella Bjornson was the first female pilot
	Planes stall if you fly up
	The four forces are thrust/drag, lift/gravity
	Wright brothers invented planes
	Types of human built flyers
	How to make an object more aerodynamic
	That stalling is drag
Analysis of student drawings of science classes. (Note: Some drawings may count in more than one category)	Teacher lecturing - 20
	Teacher doing a demonstration - 10
	Teacher sitting at own desk - 5
	Students in desks - 25
	Students out of desks - 27
	Students completing an activity - 17
	Science materials visible - 36
	Science textbooks visible - 12
	Students presenting dioramas - 5
	Students on a field trip - 11
<i>The majority of Grade 3 &amp; 4 students depicted science class with students sitting in desks and/or teacher lecturing. This is quite contrary to what we are trying to achieve. Grade 6 students, for the most part either depicted their field trip to the North Atlantic Aviation Museum or their bottle rocket testing. Science materials were only visible about half the time, and were more likely to be seen in the Grade 3 &amp; 6 drawings. Grade 4s had the most depictions of science textbooks.</i>	
<i>In Grade 3 &amp; 4, only one drawing showed students actively involved in an activity (soil exploration), and five showed students presenting to the class. Compared to 18 drawings with teacher lecturing, and 10 with teachers demonstrating; it becomes clear that our students see Science class as teacher-directed, not student-centered.</i>	

*Grade 6 drawings focused mainly on two days: the field trip and the bottle-rocket testing.*