

Congratulations!!

Congratulations to the following winners for the September newsletter contest. All entries were fantastic! Thanks to all the members who entered!

Hunter Frank, Keenan Tait, Gitsequkla; Lillie Dixon, Eliza Archie Memorial; Meradith Jackson, Cole Moore, John Field Elementary School; Brandon Dennis, Muheim Elementary School; Jennifer Gossoo, Coquihalla Middle School; Audrey Guild-Duerdon, Sardis Elementary School; Aimee Badine, Chalo School; Tyler McLeod, Merritt Central Elementary School; Nikisha Holland, Shania-Rayne Michell, Moricetown Elementary School; Drina Kruta, Kispiox School; Monica Shirey, Gitanyow Independent School; Donovan Alexander, Nakol Oleman, Sk'il Mountain Community School; Shirley Peter-Point, Spencer Point, Elizabeth Robinson, Chehalis Community School

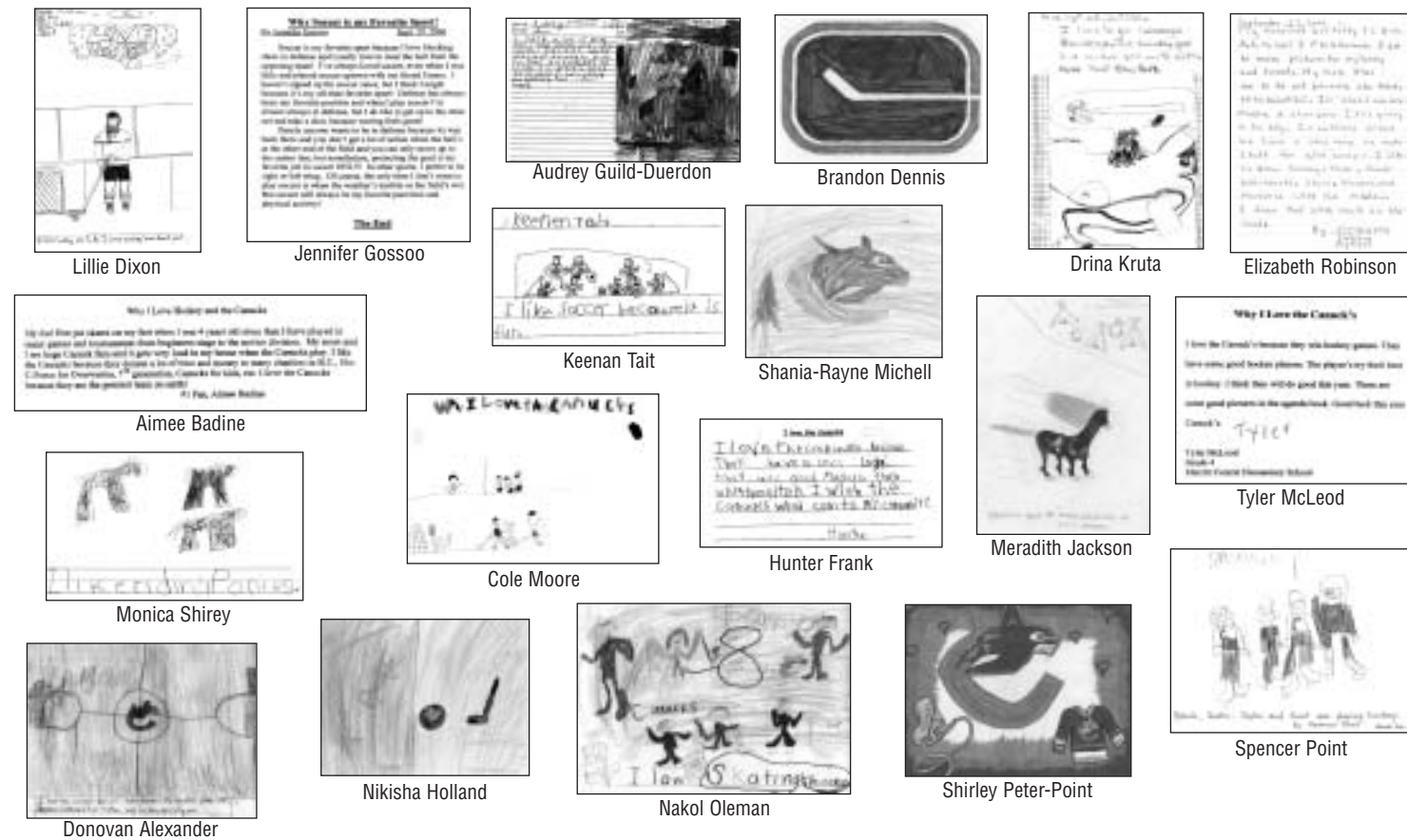


Photo Contest Winners!

We asked for photos of Seventh Generation Club members and boy did you respond! The club received so many great entries to our photo contest it was tough to pick a winner, but the grand prize of a digital camera is awarded to this great photo sent in from Bella Bella Community School.



Congratulations to our runner-up photo entry, also from Bella Bella Community School.

Thanks to everyone for all your great entries. Watch for them to appear in upcoming newsletters and daytimers and on the website.



S E V E N T H G E N E R A T I O N

November 2006

Did you have fun at Science Day this year?

Are you now "mad about science"?

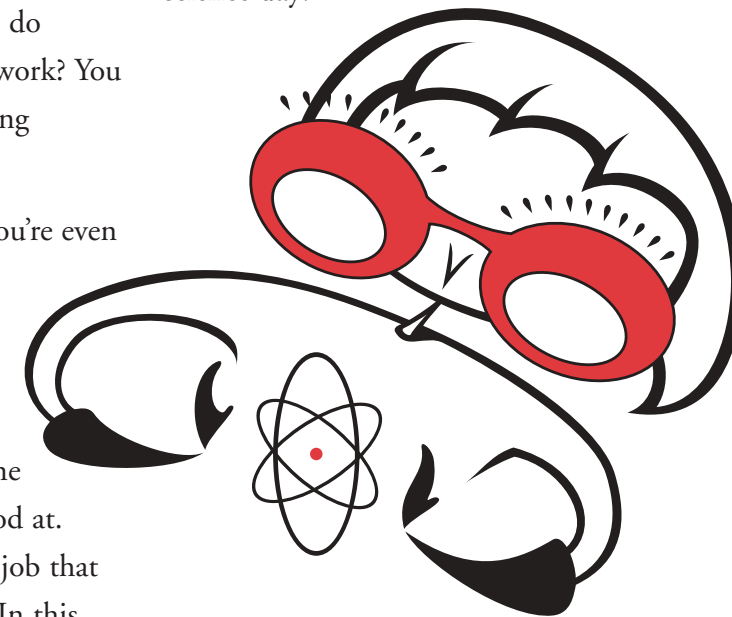
The Seventh Generation Club Science Day was held on November 10 and many of you had a great time exploring science in your classrooms with your friends, classmates and teachers. To celebrate science, this edition of the newsletter is all about the fun you can have with science.

Do you know how long people have been practising science? The answer is, as long as there have been people on the earth. Anytime anyone asks a question about the world around them and works to find out the answer, or predicts the way something will work out and then tests that prediction, this is science. Imagine how people first discovered fire, then tried different things to learn all about it. What sort of things do you do everyday to learn about how things work? You are probably doing science all day long without even realizing it!

Maybe you enjoy science so much you're even thinking about being a scientist or engineer when you're older. There are tons of jobs that use science as well as requiring other skills. Try to think about what you enjoy doing the most and the things that you are good at. Chances are that there is probably a job that combines these things with science. In this

newsletter we talk about some great jobs that use math and science and they could be jobs that you would never have imagined!

If you missed Science Day this year, don't worry, there is another one next year you can take part in. And of course, as we said earlier, you can do science all year long because if you're a true scientist then everyday is a science day!



CLUB

HIGHLIGHTS:

- Canucks Corner
- Science jobs trivia
- Some very unusual science jobs
- Congratulations!
- Photo Contest Winners!

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If you have any questions, or would like to see something included in upcoming newsletters, write to the Editor at the address above, or send an e-mail to: seventhgen@fnesc.ca

The Seventh Generation Club is created in partnership with:





New Canucks on the Block

Similar to how you enjoy getting to know the new kids in school, the Canucks are having a lot of fun this season becoming acquainted with many new players.

Nineteen athletes from last year's Canucks team have left, and are now playing hockey in other places; Todd Bertuzzi is enjoying the Florida sun this season, while Ed Jovanovski can be found howling with the Phoenix Coyotes.

It is now up to the remaining Canucks players to make the new team members feel welcome in Vancouver. Trevor Linden will do his part by giving them some hockey pointers – Trevor is starting his 15th season with the Canucks, and has played over 1000 games in his career, so he will have a lot to teach his new teammates. The team Captain, Markus Naslund, is also being a good leader by learning all about his new teammates.

Beginning at #1, the player under this jersey is the latest and greatest Canucks goaltender, Roberto Luongo. Although Luongo played for the Florida Panthers last year, he is already looking like a Canuck under his new goalie mask. Within no time, everyone will be calling him by his nickname, "Louie".

Also acquired from Florida, Lukas Krajicek will soon be known simply as "Lukey" by his new team. Born in the Czech Republic, this defenseman is sure to love Vancouver since he loves going fishing.

Another new Canuck who loves to fish is Willie Mitchell,

#8. Mitchell is also a defenseman, and was born right here in British Columbia, in Port McNeill! Mitchell likes fish so much, in fact, that he names sushi as one of his favourite foods!

Even though he comes from the other side of the world, Finnish centre Tommi Santala shares this same liking for sushi. Santala must have high hopes, since he was born in Helsinki, host of the 1952 Winter Olympics.

Speaking of heights, 6-foot 5-inch centre, Marc Chouinard, is adjusting to the West Coast. He was born in Charlesbourg, Quebec, but will never be misunderstood by the other French-speaking Canucks including Luc Bourdon, Alexandre Burrows, and both goalies, Luongo and Dany Sabourin.

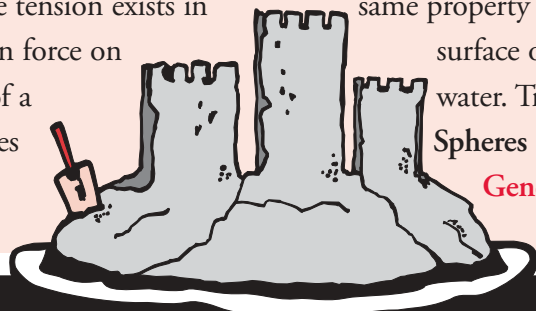
Even the Head Coach, Alain Vigneault, is from Quebec, and he is also brand new to the Canucks team. Vigneault became the 16th Head Coach in Vancouver Canucks history this past June.

The Vancouver Canucks are a very diverse team. Jan Bulis comes from the Czech Republic, Rory Fitzpatrick was born in New York, while Taylor Pyatt's roots are in Thunder Bay, Ontario. The true strength of a team is demonstrated when a group of people who are very different from one another can find the similarities they share and work together. The Vancouver Canucks team will show their unity as a team this season in their quest for the Stanley Cup—GO Canucks GO!

What makes a sand sculpture stay together?

Each tiny grain of sand is attached to other tiny grains of sand by the *surface tension* of the droplets of water between them. Surface tension exists in liquids because of the uneven force on the very outside molecules of a drop of liquid. The molecules feel forces pulling them into the centre and this makes

the surface act like a kind of 'elastic skin'. The surface tension that holds a sand sculpture together is the same property that allows insects to "skate" across the surface of a pond without sinking into the water. Try the **Paperclip Float** and **Soap Spheres** experiments from your **Seventh Generation Science Experiments Book 7** to learn more about surface tension.



SCIENCE JOBS TRIVIA

Some Very Unusual Science Jobs...

What kind of job do you imagine yourself doing in the future? Could you see yourself playing all day in the sand or the surf? Or maybe tasting delicious flavours all day long? Don't believe that these are real jobs? They sure are, and they all need math and science!

Have you ever heard of a professional sand sculptor? Sand sculptors are hired by companies to build sculptures for advertising or promotion and cities sponsor sand sculpture competitions. But this job involves more than just playing on the beach; the sculptures can be as high as 20 feet and take a lot of hard work and specialized techniques to create.

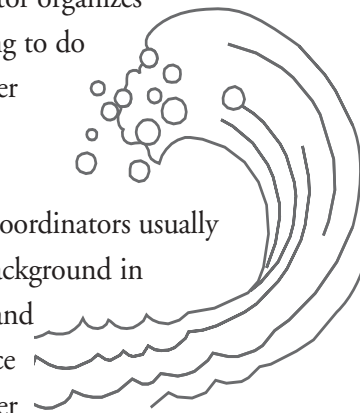
The first part of creating a sand sculpture is the planning. The sculptor has to negotiate with the company that hired him or her and order the right amount of sand and water and wood to support the sculpture. Then the sand sculptor has to carefully plan how s/he is going to build the wooden supports and decide what kind of shapes will be too heavy to build with just sand and water. And guess what all that measuring and planning uses? You got it – math! The sculptor also has to understand the science behind sand sculpting so he can use the natural materials to his best advantage. For example, some ocean sand has been rolled back and forth with the tide for



hundreds of years and become too 'round' to stick together properly, whereas some beach sand has been recently deposited there from the mouth of a river, or dredged up from the bottom of a lake so the grains of sand are angular and stick together easily. If you know where the sand you are using comes from, you can understand your sculpting limitations and better plan your design.

<http://www.harrisand.org/textonly.htm>

Would you rather be in the water than on the beach? What about a career as a marine coordinator? A marine coordinator organizes everything to do with water scenes in movies. Marine coordinators usually have a background in science, and experience with water



either as a diver or boat captain, and are often water safety experts and/or experienced lifeguards. They have to understand how changes in weather will change the water conditions, and advise the film director when it's not safe to shoot. They also have to be aware of wildlife in the area, help schedule filming around the changing tides and conditions, and organize the budget for everything water-related. For this job, not only is math important, but so too are subjects like environmental science, geology and ecology. (Occupational Outlook Quarterly Fall 2004, Vol. 48, No. 3)

Maybe you like food... hmmm... how about combining food with chemistry? If you were a flavourist then you would really be able to eat your science experiments! A flavourist combines chemicals in a laboratory to create food flavours. Flavours created with science can be made so they won't trigger food allergies, and be made to last longer or have stronger tastes and smells than natural flavours. They can be used in foods and drinks, or for things like chewable medications or toothpaste. A flavourist spends all day analyzing naturally occurring flavours, then testing different chemical combinations to recreate them. If you like chemistry and you like eating, then this job is for you! (OOQ Winter 2004-05, Vol. 48, No. 4)

Besides these unique and unusual careers, there are tons more science related jobs that I bet you've never even thought of – so if you like science, pick something else you enjoy and see if they can be combined into a career. Almost all science related jobs require a university degree so studying math and science in school now is important so you have the right courses and skills when you graduate. Math and science don't have to be boring – just ask sand sculptors, marine coordinators and flavourists!

