The summer has flown by and we're into September already! The kids are getting into the groove and we are already up and running in Math and Science. Health will begin this Friday. Here's a quick intro to our first units:

Our first math unit will be **Patterns and Relations**. This unit will review what students already know about patterns, while introducing students to finding pattern rules and using these rules to solve problems. These problems might include word problems, tables of values, graphs, or algebraic expressions. This will be their first look at algebra and at using letters to represent variables in a number sentence.

Our first science unit will be **Evidence and Investigation**. Here students will have a chance to put on their thinking caps, turn on their observation skills and solve some mysteries. We will look at investigation techniques like fingerprinting, analyzing footprints and animal tracks, as well as fiber and handwriting analysis. Students will sort through evidence to help them learn about observation techniques, data analysis, graphing and lab reports. This is a great unit to get them into the science frame of mind and will serve as a starting point for going in depth into the scientific method. This method will be integrated into everything we do this year.

In health we will begin the year by looking at our strengths, weaknesses, and goals for the future. Students will be creating a time capsule to be sealed and stored away for the coming year. We will revisit this in June to see how much the students have grown and learned in Grade 6. This is a great project to get them excited and prepared for all the hard work that is to come.

Check back every week for a preview of what is coming up in the Grade 6 classroom!

Sept. 8

This week in Math students will be learning how to take a pattern from a table of values and plot it onto a graph. They will also get an introduction on how to write expressions. They can practice at home by writing word problems and making tables and graphs to go with them. A great place to look for ideas is to think about any routines or patterns you have in your home life. They can also practice by going to these links:

[Learn Alberta - It's a Bit Nutty!](http://www.learnalberta.ca/content/mejhm/index.html?l=0&ID1=AB.MATH.JR.PATT&ID2=AB.MATH.JR.PATT.PATT&lesson=html/object_interactives/patterns/use_it.html) - on our school system we have only been able to play this game on Google Chrome, Internet Explorer doesn't have the proper graphics. If you have issues with it at home, try Google Chrome.

[Spy Guys](http://www.learnalberta.ca/content/mesg/html/math6web/index.html?page=lessons&lesson=m6lessonshell08.swf) - Extending Patterns

[Stop That Creature!](http://pbskids.org/cyberchase/math-games/stop-creature/)

[Exam Bank](http://alberta.exambank.com/) - username: pal.ncs password: lumber

**Homework: due Sept 12** - 2 math worksheets - "Restaurant Grand Opening" part 1 - on extending a pattern and making a table of values, and part 2 - on graphing a pattern from a table of values. **\*Not all students received this homework. I am only sending homework home with students who need a little extra practice.**

In Science we will be looking at patterns in footprints and how these patterns can be used to help investigations. We will also look at animal tracks and how they change based on speed and type of gait. Ask your child what footprint patterns they have learned about so far.

Here is a cool site that has a lot of animal track information. Quiz yourself!

[Animal Tracks](http://dnr.wi.gov/org/caer/ce/eek/nature/track.htm)

In Health class, students will be finishing up their time capsule and we will seal them and put them away until June. Ask your child what goals they have set for themselves this year.

Sept 15

**NO SCHOOL MONDAY!**

This week in Math students will have their first test (Tuesday the 16th). This test will have them extending patterns, describing patterns, making a table of values and plotting points on a graph. They will also need to find missing terms in a table of values and correct errors in a table of values. We have practiced this all in class, but students who wish to practice more at home can try any of the 3 links from last week's post, along with questions from exam bank. **\*The questions from exam bank are organized by unit - so far we have only covered half of Unit 1, so if students are practicing on exam bank many of the questions may be from content we have not covered yet.**Our next topic will continue the study of patterns to help us write expressions and equations that have letter variables in them. Once students are comfortable with what each part of an expression represents we will try balancing equations.

This week in Science we have a guest speaker coming to our classroom. Cpl. Jack Neri will be visiting from the Southern Alberta District Forensic Identification Services. He will be introducing students to the world of forensics and we will have the opportunity to take our own fingerprints. We will then spend the rest of the week looking at distinguishing characteristics found in fingerprints, shoe prints and tire treads.

Some fun sites that connect to this week's content:

[The Case of the Kidnapped Cat](http://www.wonderville.ca/asset/fingerprint-activity)

[RCMP Official Site](http://www.rcmp-grc.gc.ca/index-eng.htm)

In Health our time capsules have been sealed away for the year and so we will be starting our unit on Relationship Choices. This unit will focus on showing respect, caring, and responsibility within their relationships with others.

Sept. 22

This week in Science students will be analyzing footprints and tire treads.

Students can begin practicing for the PAT by doing some exam bank questions:

[Exam Bank](http://alberta.exambank.com/grade6.html#sc6) (userame: pal.ncs; password: lumber)

We have an exciting new addition to our Math class for the year! Mr. Harper will be coming down from the Jr./Sr. wing of the school to do problem solving strategies with the Grade 6 students. Over the year he will be introducing 10 different problem solving strategies to the students and practicing them on complex word problems. This will happen once a week and is meant to support their regular curriculum and give them the necessary tools for the PAT at the end of the year. We will continue in our patterns and relations unit this week by looking more at expressions and moving into equations. Students will become more familiar with using letter variables and practice balancing equations.

Here are some websites we will be visiting this week that you could use to practice more at home:

[Spy Guys](http://www.learnalberta.ca/content/mesg/html/math6web/index.html?page=lessons&lesson=m6lessonshell11.swf) - Balancing Equations

[IXL Math](http://ca.ixl.com/math/grade-6) - You can do practice questions in most of the Algebra sub sections

In Health class we will be discussing how individuals can choose their own emotions and reactions to events and focus on which responses would be best for a persons well-being.

Sept 29

This week in Math students will be practicing balancing equations by participating in multiple game stations. They will be modelling equations, solving for the unknown, and matching word problems to the equations that represent them.

Here is a game we played in class that they can practice with:

[Exploring Algebra](http://www.learnalberta.ca/content/mejhm/index.html?l=0&ID1=AB.MATH.JR.PATT&ID2=AB.MATH.JR.PATT.ALG&lesson=html/object_interactives/algebra/use_it.html)

In Science we will be analyzing ink samples. We will be focusing on this to help us learn more about the scientific method. Students will be given the question "What is black ink made of?" They will use this as a starting point to develop a hypothesis, make predictions and test their hypothesis using paper chromatography. Once they analyze their results, groups will come up with new questions they have about ink and develop their own experiments to carry out.

In Health we will continue our discussion on emotional reactions.

Oct. 6

**EXPLORATORIES START MONDAY - Exploratories will take place in Period 8 every Monday and Friday.**

**Students who participate in my Exploratory class will take part in a variety of science experiments, demonstrations, challenges, and competitions.**

This week in Math students will be exploring more with equations. Students worked last week to create their own word problem and matching equation. They will be presenting these to the class this week and modelling the equation for other students to try and solve. This week we will work in reverse - giving students an equation and having them think of possible word problems that could match it.

This week in Science students will be carrying out their own chromatography experiment. Students will record their observations, inferences and conclusions in a final lab report. We will then move on to analyzing handwriting samples and discussing how this is helpful to forensic investigators and what steps they take while analyzing handwriting.

In Health we will be continuing our discussion on choosing our own reactions to situations. Students will reflect on their own experiences and on how they usually express their feelings. They will then choose one feeling that they want to work on expressing better in the future. **\*This will happen next week as Health class will fall during our Harvest Lunch on Friday.**

Oct 13

**HAPPY THANKSGIVING!**

**PD DAY TUESDAY - NO SCHOOL**

This week is a short week for us but we still have lots to do!

In Science students will be analyzing soil and fiber samples and trying to match their samples to the original source.

In Math we will be focusing on one step algebraic equations - beginning with how to solve equations using addition or subtraction. Once students are comfortable with this we will move on to equations that use multiplication or division.

In Health we will continue to look at our emotional responses to situations and how we can make these positive and productive.

Oct. 20

This week in Math students will be finishing off the unit by solving equations that involve division. We will be reviewing the unit and students will do a practice PAT exam to prepare them for their unit test next week. **Unit Test on Wednesday, October 29th.**

In Science students are working on their final project of the unit. They will be working in groups to stage a crime scene for their classmates to solve (and vice versa). They will decide on specialist roles that they will take on when investigating and come up with a possible suspect in their final report. **Crime scenes will be set up on Tuesday, October 28th.**

In Health we will be discussing how to make our classroom a safe and caring environment so that people feel comfortable expressing their feelings.

Oct 27

This week wraps up both of our units in Math and Science.

Students will set up and investigate crime scenes over the 28th and 29th of October. After they have completed their investigations they will present their findings to the class and try to figure out who the culprit is. We will do a short test on Friday to finish up the unit. Next week we will be starting our next unit - Sky Science

Students have their math test on Wednesday October 29th. Our next unit will be numbers larger than a million and smaller than a thousandth.

In Health students will be learning about strategies for dealing with stress.

Nov 3

This week we will get well underway in our new Math and Science units.

In Math, we are reviewing how to read numbers using place value charts, and going deeper than Grade 5 by reading numbers larger than a million and smaller than a thousandth. Students will learn how to read and write these numbers using words, expanded form, and standard form.

In Science we will begin looking at the Sun and how it effects our lives on Earth. Near the end of the week we will begin looking at how the solar system is set up and begin research on the other 7 planets in our system.

In Health students are creating a public service poster to help others learn how to deal with stress.

Nov 10

**NO SCHOOL MONDAY OR TUESDAY**

This week in Math students will be moving on to numbers smaller than a thousandth. They will be practicing writing these numbers on a place value chart, in words, and in expanded form.

In Science students have been assigned a planet in our solar system that they need to research and present to the class. They will be researching their planet this week and developing a page for our class flip book on their planet.

This Friday will be the last Health class students have to complete their stress posters. ***Posters will be due on Tuesday Nov. 18th.***

Nov 17

In Science we will be continuing on our planet research project. Students will be presenting their planet to the class and everyone will be using this information to develop their own visual planet guide. Alongside these activities, we will also begin looking at how the Earth's rotation effects our daylight hours and shadows. Students will be challenged to create a device that helps them tell the time using only the Sun's rays.

This week in Math students will be looking at numbers smaller than a thousandth, focusing on how to express these numbers 3 ways - in standard form, expanded form, and word form. Students can practice relating word form to standard form by playing these games:

[Decimals of the Caribbean](http://mrnussbaum.com/doc/dec34.swf)

[Place Value Pirates](http://mrnussbaum.com/placevaluepirates1/)

[Fruit Shot Decimal Comparison](http://www.sheppardsoftware.com/mathgames/decimals/CompareDecimals.htm)

In Health we will be discussing barriers to communication. We will discuss how they effect communiation and how these barriers can be overcome.

Nov 24

This week in Math students will be working on problem solving using decimal numbers. They will have a **chapter test on Tuesday, Dec. 2nd** that covers large numbers, small numbers, and problem solving with both.

In Science we will continue to collect data about the length of shadows at different times of the day to help us plan our sundials.

In Health students will be creating a personalized action plan to help them overcome barriers to communication.

Dec. 3

**NO SCHOOL MONDAY**

This week in Science we will be learning about the constellations. Students will each be researching a specific constellation to present to the class and we will try to build our own map of the constellations within the classroom. Students should begin their research at the following sites:

[Windows to the Universe](http://www.windows2universe.org/the_universe/Constellations/north_constellations.html)

[Mr. Nussbaum - Space](http://mrnussbaum.com/space/stars3/)

[The Night Sky](http://stardate.org/nightsky/constellations)

To help familiarize themselves more with the constellations, and for a little fun, students can go on a constellation hunt at this site:

[Kids Astronomy - Constellation Hunt](http://www.kidsastronomy.com/astroskymap/constellation_hunt.htm)

Students can also increase their knowledge of space by heading to this trivia site:

[Astronomy Games](http://www.kidsastronomy.com/fun/index.htm)

**There will be a short quiz on constellations on Friday Dec. 5th**

In Math this week students have their Chapter test for large and small numbers. Our next topic will be about factors and multiples. Students will learn strategies for how to find factors and multiples and how to apply these strategies when solving word problems.

Dec. 8

This week in Math students will be using their knowledge of multiples to solve word problems. We will also begin to look at factors and practice ways to make a factor list. There will be a sub in on Tuesday and students will have an opportunity to practice word problems on exam bank.

[Multiples and Factors Games](http://jmathpage.com/JIMSMultiplicationfactorsandmultiples.html)

[Exam Bank](http://alberta.exambank.com/grade6.html#ma6) - Basic Operations Word Problems

In Science this week we will be finishing up our experiment on shadows and applying our research to the building of sundials. Students will also be finishing up work on their planet flip book, they will be able to study from this in preparation for a short planets quiz next week.

In Health we will be continuing our discussion on family relationships.

Jan 5

**HAPPY NEW YEAR!**

Welcome back everyone! I am ready and excited to get back into our math and science units, I hope you are too!

This week in Math we will be reviewing what a multiple and what a factor is. Students will have a short quiz at the end of the week before we move on to a chapter project.

In Science we will be learning about the seasons we experience on Earth and why they occur. We will also be looking at the phases of the moon. Students will be investigating what causes the moon to appear to change shape in the sky by participating in a scale model activity.

Jan 12

This week students will have a quiz in both Science and Math. In Science - the quiz will cover the seasons and the phases of the Moon. In Math - the quiz will be on factors and multiples.

On Tuesday I will be away and Ms. Coates will be in to sub for me. When I return, we will be starting a project in math that incorporates multiples, lowest common multiples, and pattern tables. In Science we will be finishing up the unit by learning about galaxies and the universe, as well as technology that we use to learn about the universe. Students will have a unit exam next week to complete the unit.

In Health we will be discussing cross-age relationships. Students will be looking at the people in their lives that are older and younger than they are, and what these relationships contribute to their lives. Your child will be asked to interview an adult in their life who has a cross-age relationship. Please be prepared to share some interests or values you share with someone older or younger than yourself.

Jan 19

In Math we are now learning about prime and composite numbers. To practice prime and composite numbers, students can try these links:

[Fruit Shoot](http://www.sheppardsoftware.com/mathgames/numbers/fruit_shoot_prime.htm)

[Monkey Drive](http://www.sheppardsoftware.com/mathgames/monkeydrive/numbers/MDPrimeNumbers.htm)

In Science we are completing our unit by looking at telescopes and discussing how this technology has helped us to learn more about our universe. Students will have their unit test on Jan. 27th. Our next unit in Science will be Air and Aerodynamics. They can study for their unit test by doing exam bank questions under the Sky Science category.

[Exam Bank](http://alberta.exambank.com/grade6.html)

In Health we are still discussing cross age relationships. Students will be assigned a small interview project to complete over the weekend. Your child will be asked to interview an adult in their life who has a cross-age relationship. Please be prepared to share some interests or values you share with someone older or younger than yourself.

Jan 26

**SKI TRIP POSTPONED TO THURSDAY FEBRUARY 5TH**

**NO SCHOOL FRIDAY**

This week students have their Math and Science unit tests to complete. We will begin our new units in February.

They also have a health assignment to interview an adult in their life. This is due on February 3rd.

Feb 2

For High School students it is the first week of the second semester. Because of this, there will be a change in the grade 6 schedule. I will still be teaching grade 6 Math and Science, however Health class will now be taught by Ms. Anna Vanderheide.

This week in Science we begin our unit "Air and Aerodynamics". This unit is all about what air is, where we find it, and how it behaves. Students will learn about air pressure, lift, and what it takes for birds and insects to fly. Our first project in this unit will entail students working in groups of 4 to plan and carry out a demonstration to teach the rest of the class about a particular characteristic of air.

In Math we are starting a unit on Fractions. After reviewing what was covered last year, we will be learning about mixed numbers and improper fractions. Students will have a chance to use pattern blocks this week to visualize this concept before moving into using only numbers.

Feb 9

This week in Science we will be learning more about the properties of air. Students will have the chance to see some videos and teacher demonstrations that show that air is fluid - it can be poured, it expands and contracts, and moves like a liquid. You can watch one of the experiments we did in class here:

[Underwater Diver](http://www.stevespanglerscience.com/lab/experiments/cartesian-diver-ketchu)

In Math students will be creating posters that show step by step how to change fractions between improper and mixed number format. Here are some games to practice converting your fractions:

[Fraction Pacman](http://www.sheppardsoftware.com/mathgames/fractions/mathman_improper_fractions.htm)

[Mixed to Improper Trivia](http://www.mathplayground.com/fractions_mixed.html)

[Improper to Mixed Trivia](http://www.mathplayground.com/fractions_improper.html)

[Spy Guys Fractions](http://www.learnalberta.ca/content/mesg/html/math6web/index.html?page=lessons&lesson=m6lessonshell02.swf)

Feb 23

**WELCOME BACK!** I hope everyone had a good break!

This week in Math we will be beginning our next topic - Ratio. Students will be learning what a ratio is and the many ways they can write ratios. This will eventually lead to learning about percentages.

[Spy Guys - Ratio](http://www.learnalberta.ca/content/mesg/html/math6web/index.html?page=lessons&lesson=m6lessonshell03.swf)

[Ratio Rumbler Potion Game](http://mathsnacks.com/ratiorumble_game_en.html)

[Ratio Blaster](http://www.mathplayground.com/ASB_RatioBlaster.html)

[Ratio Stadium](http://www.mathplayground.com/ASB_RatioStadium.html)

In Science students will be learning about lift (also known as Bernoulli's principle). They will take part in some demos and experiments that show how air pressure affects lift and how lift allows things to fly. Here is a video we watched in class to help us understand the properties of flight:

[Properties of Flight Video](http://www.sciencekids.co.nz/videos/engineering/flightaerodynamics.html)

Mar 2

This week in Math Students will be starting the topic of percents. We will be reviewing fractions and decimals form earlier in the year and relating it to percentages.

In Science students will be starting a research project on a bird or insect of their choice. They will be working on creating an informative poster that illustrates the adaptations each animal has to help it fly. Some research sites below are good starting points:

[How Birds Fly (Science Learning)](http://sciencelearn.org.nz/Contexts/Flight/Science-Ideas-and-Concepts/How-birds-fly)

[Animal Fact Sheets](http://www.canadiangeographic.ca/kids/animal-facts/animals.asp)

[How Birds Fly (Journey North)](http://www.learner.org/jnorth/tm/FlightLesson.html)

[Bird Flight](http://www.earthlife.net/birds/flight.html)

[Insect Wings](http://www.amentsoc.org/insects/fact-files/wings.html)

[Insect Wing Anatomy](http://www.cals.ncsu.edu/course/ent425/tutorial/wings.html)

[How Insects Fly](http://insects.about.com/od/insects101/qt/How-Insects-Fly.htm)

[Insect in Flight Video](http://news.nationalgeographic.com/news/2014/03/140325-insect-flight-aeronautical-engineering-blowflies-synchrotron/)

[Types of Insect Wing](http://www.agriinfo.in/default.aspx?page=topic&superid=6&topicid=1536)

Mar 9

This week in Science students will be presenting their research posters to the class about the flight of their chosen bird or insect. They will have a quiz at the end of the week covering the properties of flight.

In Math students will be finishing up on percents and wrapping up this section with an "interior design" project. Next week we will be review fractions, ratios, and percents before a Unit Test on Thursday.

Mar 16

This week in Math students will be reviewing for their unit test. The test will cover Fractions, Ratios, and Percents. They can review by visiting the exam bank and practicing the section titled "Fractions and Decimals". Here are some other percent games to try out:

[The Legend of Dick and Dom](http://www.bbc.co.uk/bitesize/ks2/maths/number/percentages/play/)

[Park Designer](http://www.bbc.co.uk/schools/teachers/ks2_activities/maths/percentages.shtml)

[Percent Fraction Matching](http://www.mathplayground.com/matching_fraction_percent.html)

[Percent Shopping](http://www.mathplayground.com/percent_shopping.html)

[Spy Guys - Percent](http://www.learnalberta.ca/content/mesg/html/math6web/index.html?page=lessons&lesson=m6lessonshell04.swf)

In Science students will be learning about what air is really made of (Hint: there is way more than just oxygen!) Next week they will have a unit test before we begin our Flight component. Here are some videos that cover the topics we are discussing this week:

[Oxidation](https://www.youtube.com/watch?v=FWNj-9vg4o0)

[Flames use Oxygen](https://www.youtube.com/watch?v=Po1C5qk3pSQ)

[Carbon Dioxide puts out Candles](https://www.youtube.com/watch?v=V-KcZ59_sQE)

Mar 23

This week is Unplug and Play week. During last period every day this week, our elementary school will be participating in fun, active, whole school games to promote an active lifestyle and a step away from electronic entertainment.

This week in Science students will have their Unit Test for Air and Aerodynamics. We will be starting our flight unit where students will be designing, building, and testing different flying machines such as parachutes, gliders, and airplanes.

In Math we will be starting Integers (whole numbers above and below zero). You can help your child with this unit by discussing scenarios where we use negative numbers. One example we have looked at so far is degrees below zero on a thermometer.

[Brain Pop - Adding Integers](https://www.brainpop.com/math/numbersandoperations/addingandsubtractingintegers/)

Mar 30

**NO SCHOOL FRIDAY**

**EASTER BREAK APRIL 3RD - 12TH**

This week in Math students will be exploring the order of operations (also known as BEDMAS). They will be practicing this method in a variety of ways and can also practice online with this game:

[Krypto](https://www.brainpop.com/games/primarykrypto/)

In Science students will begin their flight unit by looking at flying objects that are considered "floaters". This category would include things like hot air balloons, parachutes, and dandelion seeds. They will be constructing their own parachutes and making modifications to affect its flight path.