

# SCHOOL STORY

...

DSCS

# WHO ARE WE?

-Desert Sands Community School

-2nd year K-12

-265 students

-we teach the grade 7-8 cohort of approx. 52 students

-HELP - we are supported directly by the Inclusion Specialist, Shop teacher, Generalist teacher who specializes in animation, Science specialist, EA and ASSW. Program and project planning has been supported by Leyton Schnellert from UBCO ... and from the first planning stages we have been supported by school and district administration.



**What is our inquiry and why is it important to us and others?**

INQUIRY QUESTION:

Will students strive for deeper learning when they are given individualized feedback including assessment using the 1 column assessment sheet?

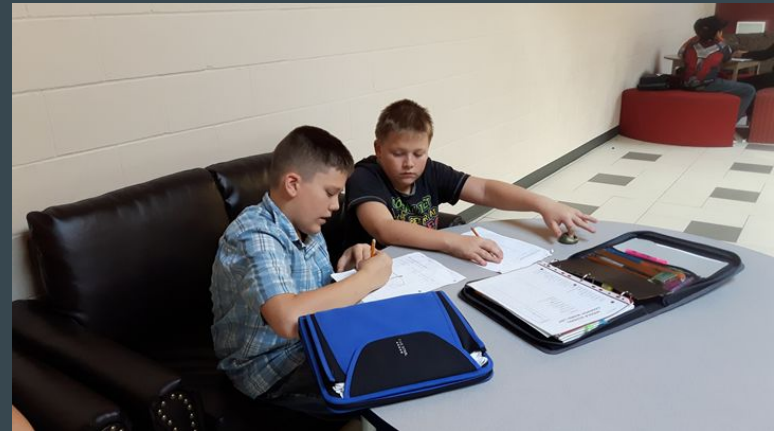
**What are we learning? What changes are we seeing with students, school, community?**



# DESIGNING THE PROGRAM

# INTERDISCIPLINARY LEARNING

We believe that classrooms should engage students by being **collaborative** and **interdisciplinary**.



# Student Engagement

We believe for students to be fully engaged with their learning they need to inquire into topics that they are personally connected to:

- Passion topics help spark curiosity
- Authentic questions lead to new questions
- Students draw upon prior knowledge
- Curiosity leads to critical thinking and creativity

A landscape photograph of rolling hills at sunset. The hills are covered in sparse vegetation and show signs of erosion. The sky is a clear, pale blue. The word "PLANNING" is overlaid in white, bold, sans-serif capital letters in the center of the image.

# PLANNING



# Reflection on Last Year (Changes in Project Planning and Scaffolding)

## Original Intention:

- Scaffold early projects heavily
- Gradually build more freedom into project design
- Work toward ongoing Open Inquiry, track Curricular Competencies in projects

## Changes:

- Project planning from Big Ideas from the Renewed Curriculum
- Real scaffolding by the final project of last year  
(Yes, we had to re-learn what it means to scaffold a project!)
- More content teaching (anchor lessons) prior to project assignments
- Choice to remain committed to Interdisciplinary Learning

→ Changes in Planning, Pace, Scaffolding, Assessment

# Here are some key elements of our current program ...

- **BIG IDEAS (basis for project ideas)** = anchor lessons and deep learning tasks.
- **CURRICULAR COMPETENCIES** = mini-lessons and projects.
- **CORE COMPETENCIES** = presentations, collaboration, self and peer reflections
- **MATH** = taught separately at this time to develop deep numeracy competence.
- **ASSESSMENT** = marks free and based on interdisciplinary curricular competencies and concepts. (Now using one-column rubrics for project work)

# So this year we planned projects by ... (Thanks, Tracy!)

Contacts and conflicts between peoples stimulated significant cultural, social, political change.

Religious and cultural practices that emerged during this period have endured and continue to influence people.

Changing ideas about the world created tension between people wanting to adopt new ideas and those wanting to preserve established traditions.

*EXPANSION + BIG HISTORY*

Elements consist of one type of atom, and compounds consist of atoms of different elements chemically combined.

Exploration, expansion, and colonization had varying consequences for different groups.

Economic specialization and trade networks can lead to conflict and cooperation between societies.

... until we started to notice a common theme ...

## The human need for/to:

Order

Control

Exploring

Connect

Know

Be Happy

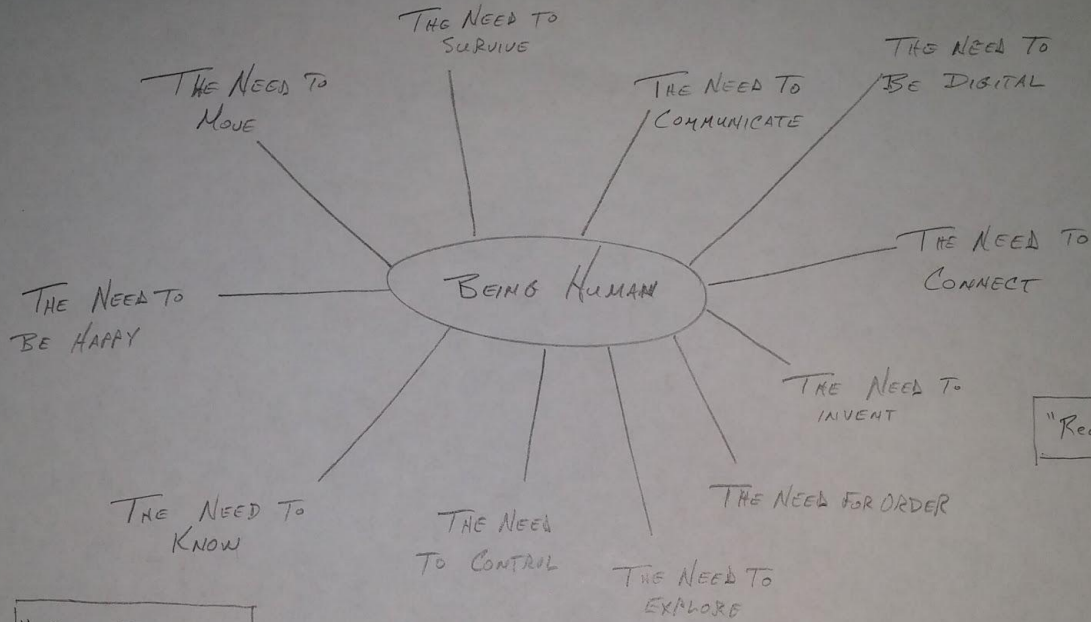
Survive

Communicate

Move

Invent

# PROJECT TOPICS



"Who Am I...Online?"

"The River Runs Through"

"Ready to Patent"

"Open Inquiry"

"Expansion + Big History"

... and arrived at a (borrowed) central question!

(Thanks Kerri and Dave!)

**“What does it mean to be human?”**

# EXPANSION IN HISTORY

# Expansion In History

## Planning Sheet for Expansion in History

[https://docs.google.com/document/d/1JSEULo2I7cfwv\\_rU6-OnG7UdFPiqd7mhXcjL6xDAdpo/edit](https://docs.google.com/document/d/1JSEULo2I7cfwv_rU6-OnG7UdFPiqd7mhXcjL6xDAdpo/edit)



# Sequence of Anchor Lessons

1. OVERVIEW OF TIME PERIODS (Ancient world to 7th century) - Stacey
2. OVERVIEW OF TIME PERIODS (7th century to 1750) - Brent
3. SCIENCE & TECHNOLOGY - Cathy
4. CIVILIZATIONS - Stacey
5. ELEMENTS AND COMPOUNDS - Cathy
6. CULTURAL EXCHANGE AND INTERACTIONS - Brent
7. COLONIALISM - Stacey

Lesson Plan:

<https://docs.google.com/document/d/1Cp7h1jvERLHqpn93x2gymR-h25RpcT-8sQOKL-D4halc/edit>

# EXPECTATIONS:

- A. WRITING - Answer key questions (see above) - you can use any written form to show us the answer to your questions.
  - i. CONTENT - answers to the key questions should be thoughtful and complete
  - ii. CONVENTIONS - Questions must be COMPLETELY EDITED!! - we will be looking for proper spelling, capitalization, punctuation, and organization of writing. Don't spell "their" wrong!!!!!!!!!!!!!!!!!!!!
  - iii. DECODING - you are required to include 4 new vocabulary words that you have learned in your research during this project. You must fill in the VOCABULARY WORD SHEET and make sure to include your REFERENCES.
  - iv. REFERENCES: please include at least 3 research frames if you are working individually and 5 if you are
  - v. working in a partner group.
- B. ARTIFACT:
  - a. Timeline artifact - you are required to provide a constructed artifact to represent your aspect in history. This item must be tangible (ie: you can touch it and it is 3D in nature). You can use shop items or things like paper mache or other available building materials. Your artifact must not be too heavy or big.
- C. PERIODIC TABLE:
  - a. CONNECTION TO PERIODIC TABLE: you must find and represent a connection to the periodic table of both your historic aspect and another groups aspect. For example, if I chose iron I can link it to the weapons used in the collapse of the bronze age and tools used for cooking in the middle ages.

HELPFUL PAGE!!!!!!

A timeline of chemical element discoveries:

[https://en.wikipedia.org/wiki/Timeline\\_of\\_chemical\\_element\\_discoveries](https://en.wikipedia.org/wiki/Timeline_of_chemical_element_discoveries)

<b>Concerns</b> <i>Areas that need work</i>	<b>Criteria</b> <i>Standards for this project</i>	<b>Advanced</b> <i>Evidence of amazing performance</i>
	<b>WRITING</b> - Use multiple reliable sources of information to explain your topic. -Edit - work is edited with proper grammar, spelling, punctuation, capitalization. -3-5 RESEARCH FRAMES completed.	
	<b>ARTIFACT</b> - Your model/artifact represents the key period in history that you are learning about.	
	<b>KEY CONCEPTS</b> - Explain how your model relates to the human need for order, exploration, and/or control - Explain how your model and that time in history relates to the way the world is today.	
	<b>PERIODIC TABLE</b> -Pick an element from the periodic table that fits within your topic or time period and explain the connection between the elements and the topic. -Seek a connection from your element to someone else's topic on the timeline.	
	<b>VOCABULARY WORDS</b> Word strategies - 4 words are chosen, defined and a sentence is used that describes the word.	

<b>Concerns</b> <i>Areas that need work</i>	<b>Criteria</b> <i>Standards for this project</i>	<b>Advanced</b> <i>Evidence of amazing performance</i>
<p>-please include a list of sources.</p> <p>-please see corrections document on Freshgrade for suggestions for some edits and additions in red.</p>	<p>WRITING</p> <ul style="list-style-type: none"> <li>- Use multiple reliable sources of information to explain your topic.</li> <li>-Edit - work is edited with proper grammar, spelling, punctuation, capitalization.</li> <li>-3-5 RESEARCH FRAMES completed.</li> </ul>	<ul style="list-style-type: none"> <li>-your research frames are done well and include important information that helped you answer the project questions.</li> <li>-great job at including a quote from the Torah. It really helps validate your writing.</li> <li>-the presentation of your questions was excellent and easy to read and was very authentic.</li> </ul>
	<p>ARTIFACT</p> <ul style="list-style-type: none"> <li>- Your model/artifact represents the key period in history that you are learning about.</li> </ul>	<ul style="list-style-type: none"> <li>-although simple, your artifact represents Judaism.</li> <li>-the representation of the Torah was very well done and you exceeded expectations on your motivation to make it look unique and from that ancient time period.</li> </ul>
<p>-please see corrections document for changes in red.</p>	<p>KEY CONCEPTS</p> <ul style="list-style-type: none"> <li>- Explain how your model relates to the human need for order, exploration, and/or control</li> <li>- Explain how your model and that time in history relates to the way the world is today.</li> </ul>	
<p>-you need to include the process by which trees turn into paper and how those elements change during the process.</p> <p>-please include the chemical element symbols from the periodic table for your elements.</p> <p>-please include the connection of Carbon from Sarah's project to your project.</p>	<p>PERIODIC TABLE</p> <ul style="list-style-type: none"> <li>-Pick an element from the periodic table that fits within your topic or time period and explain the connection between the elements and the topic.</li> <li>-Seek a connection from your element to someone else's topic on the timeline.</li> </ul>	<ul style="list-style-type: none"> <li>-you were very resourceful in finding a connection from trees to paper to Torah to Judaism.</li> </ul>
<p>-please re-write the sentences for Kashrut, Monotheistic and Patriarchs as they don't define the word in their context.</p>	<p>VOCABULARY WORDS</p> <p>Word strategies - 4 words are chosen, defined and a sentence is used that describes the word.</p>	<ul style="list-style-type: none"> <li>-your definitions are informative and give your audience an understanding of the words.</li> <li>-your sentences for Covenant and Yiddish define the word in their context and are good examples.</li> </ul>

**READY TO PATENT**  
**Design Project**

# Sequence of Planned Activities

- One-day construction assignment (students built rovers from cardboard)
- Construction of device meant to pick up “resources” and place them in a container
- “What is Design Thinking?” lesson
- Assessment Rubric - have students assess 3 rovers using the rubric
- Concept development
  - identify a problem
  - Imagine a solution
  - Design the solution as a pre-prototype concept and drawing
  - Construction time in groups of up to 3 students
- Build the design and test it
- Prototype iterations of the design
- Final presentation to teachers, (parents invited)

# READY TO PATENT

<i>Areas to revise or improve</i>	<b>Criteria</b> <i>Standards for this project</i>	<i>Evidence of amazing performance</i>
	<b>Did I achieve my goals?</b> -I take ownership of my learning. -I care about my work. (quality & completion). -I challenged myself as a learner. -I am ready for an interview at a creative design company.	
	<b>Did I make prototypes?</b> -I completed an initial prototype. -I used feedback to build the next iteration of my prototype. -I documented my creative process. (min 3 prototypes)	
	<b>Is my invention creative?</b> -My design is unique OR provides important modification to an existing design that improves its function or purpose.)	
	<b>Does my invention work?</b> -My design prototype functions smoothly and consistently.	
	<b>Is my invention useful and important and challenging?</b> -My design addresses a real life need. -I addressed a complex issue/problem.	

<b>Concerns</b> <i>Areas that need work</i>	<b>Criteria</b> <i>Standards for this project</i>	<b>Advanced</b> <i>Evidence of amazing performance</i>
	<b>Did you achieve your goals?</b> (Personal Awareness and Responsibility) -Self-determination/Self-regulation - taking responsibility for goals, learning, behaviour. - consistent effort with interest and enthusiasm (even outside of class time) - worked hard enough to earn a job interview at a creative design company	-The group goal for your invention was to create a collar that carries survival items and track an animal like a dog. It could also be used to find your dog if it was lost. -Your group says it worked together well but sometimes each member felt the work was not being shared evenly so you spoke about it and worked out a plan to contact each other when you had questions or needed to get some work done. -The idea to use parachord for your collar was an excellent one as it is attractive, durable, easy to use, comes in multiple colours, dries easy, etc. -The parachord can also serve as a safety device or rope.
<b>-Your group was hoping to make the tracker themselves so learning about electronics and app making in the future would be a great goal.</b>	<b>Did you make prototypes?</b> (Prototyping) - repeated prototypes of a creative design idea -working prototypes were further developed and improved in re-build -include evidence of prototyping (3 design drafts posted on Freshgrade)	-Your group did a great job with the prototyping stage. Your group reflected on what you had created, took suggestions into account, added or fixed prototypes. -1 <sup>st</sup> prototype – small collar made of parachord but too small for metal container. -2 <sup>nd</sup> prototype – bigger collar and fits container. -3 <sup>rd</sup> prototype – adjustable and has a tracker. This tracker has an app for your phone. -These prototypes were tested on dogs with success.
	<b>Is your invention creative?</b> (Ideating) -design is unique OR provides important modification to an existing design that improves its function or purpose. - design idea shows evidence of creative thinking and problem solving - creative solutions to: make design idea useful and empathetic	-Although there are already multiple versions of dog collars, I find this one particularly creative or unique because it has a tracker in it so you can always find your pet. The material used (parachord) is water resistant and comes in a variety of colours. It can be used as a safety rope if necessary. Also there is a survival pack that comes and is attached to the collar so that would make it useful and empathic. -Your group showed creative thinking and problem solving during the design process.
	<b>Does your invention work?</b> - design prototype functions smoothly and consistently -potential for real life function although currently flawed. (Evaluating/Assessing)	-Your collar is well crafted which makes your invention attractive to your customers. The fact that you can customize it is also something people are looking for and the addition of technology in the form of an app is something people will want. -I would say it is completely marketable as is. Get ready to manufacture a whole bunch of them!
	<b>Is your invention useful and important?</b> -design addresses a real life need. (Empathizing)	-Your invention is useful and important for survival needs and pet owners. It addresses a real life need for people who bring their pets with them wherever they go. If there is an accident the survival pack is there and if there is a chance you may loose track of your pet, the tracker solves that problem.



# OUR CATAclysmic PLANET

# OUR CATAclysmic PLANET

PLANNING SHEET FOR OUR CATAclysmic PLANET

<https://docs.google.com/document/d/1cdPCGvNdKcNbRuE9YT9qFvp1LEcB6rVAH76EKqH9uJE/edit?usp=sharing>

# Sequence of Anchor Lessons

- Literature Circles with Survival as the topic
- Cosmic events and their effect on Earth
- Plate Tectonics
- Earth's changing climate ... and Large weather events
- Erosional and depositional formations
- Building code and destructive testing
- First Peoples knowledge of large scale changes in the past:
  - local geological formations
  - significant local geological events
- Fossil record & evidence of biodiversity
- Human response to geographic challenge

# PROJECT: Our Cataclysmic Planet

**Cataclysm: a large scale and violent event in the natural world.**

- **A sudden violent upheaval ... in a political or social context.**

*HOW HAVE THE EARTH AND ITS INHABITANTS BEEN SHAPED BY POWERFUL CATACLYSMS?*

In the very short time that humans have memory of our time on this planet, much of the significant natural change has been slow and incremental. Sometimes we assume that things have always been this way, and that they are likely to remain so ... but this only tells part of the story of Earth's development. There is plenty of evidence to show that huge cataclysms have sometimes made dramatic changes very quickly, and that cataclysmic change is part of the natural history of our planet. The purpose of this project is to become more informed about the nature of change on the surface of planet Earth.

## Your Project:

Your project will consist of **three** separate but connected parts, along with a self reflection about one learner trait. All parts are to be uploaded to Freshgrade to consider them complete.

1. Research Frames (3)
2. Survival Kit and Justification including a Bibliography (15 items)
3. Destructive Testing

<b>A Work In Progress</b> <i>Areas that need some improvements!</i>	<b>Criteria</b> <i>Standards for this project</i>	<b>Advanced</b> <i>Evidence of mastery!</i>
	<b>LEARNING TRAITS</b> How did my work in this project show that I am growing as a learner? (Focus on one or two of the traits) <b>Determined      Resourceful</b> <b>Compassionate      Reflective Creative      Collaborative</b>	
	<b>RESEARCH FRAMES</b> How do my research frames show that I gathered evidence to: 1. Describe the type of cataclysm I chose 2. Describe an example of my cataclysm in detail 3. Explain how to survive your cataclysm	
	<b>JUSTIFICATION</b> <b>(digital format please)</b> 1. Were my explanations of each item in my survival kit complete (15 items) and detailed? Explain. 2. Did I use reliable research sources (from the research frames) to justify each item in my survival kit? Explain. <b>(Your opinion does not count as research)</b> 3. Did I include a Reference page with complete information about all of my sources?	
	<b>SURVIVAL KIT</b> <i>Applying and Innovating</i> 1. How did I apply my learning from anchor lessons and from independent research to my survival kit design and choice of items in the kit? 2. How does my survival kit consider the potential needs of others in my community? 3. How do I explain: <ul style="list-style-type: none"> <li>- What influenced my decision to include each item?</li> <li>- How the supplies in my kit will help humanity in the short term?</li> <li>- How the supplies in my kit will help humanity in the long term?</li> </ul>	

# OUR SCHEDULE

# MIDDLE SCHOOL SCHEDULE 2016 - 2017

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:55 - 9:35	GROUP A=Reading/ Writing GROUP B =Math	GROUP A = Project GROUP B = Math	GROUP A=Reading/ Writing GROUP B =Math	GROUP A= Science Lab GROUP B =Math	GROUP A=Reading/ Writing GROUP B =Math
9:40 - 10:15	GROUP A=Math GROUP B=Reading/ Writing	GROUP B = Project GROUP A=MATH	GROUP A=Math GROUP B=Reading/ Writing	GROUP B = Science Lab GROUP A=MATH	GROUP A=Math GROUP B=Reading/ Writing
10:18 - 11:32	ELECTIVE - PE/ART/HEALTH/DRAMA				
11:36 - 12:50	INQUIRY -Shop time	INQUIRY -Shop time	INQUIRY -Shop time	INQUIRY -Shop time	INQUIRY -Shop time
12:50 - 1:30	LUNCH				
1:30 - 3:05	INQUIRY	AVID 11/12 - Ms. P Art 11/12 - Mr. C	INQUIRY	AVID 11/12 - Ms. P Art 11/12 - Mr. C	INQUIRY
2:20 - 3:05		INQUIRY		INQUIRY	

# What broader implications of our work can we imagine for our district or public education overall?

-Continuum based with 3 year intervals instead of grades.

-Multi-year projects

- 'Break down walls' between classrooms → move toward collaborative and team teaching (ie) There is immense power in connectedness in learning

-Ongoing focus on individualized assessment (continual examination of student learning)



# How have I changed as an educator through this work? How is my idea of education changing? (Stacey)

- I have gone from teacher centred learning to student created learning.
- I plan to facilitate learning now instead of driving it.
- I am able to give my students more individualized learning feedback.
- I always allow for choice now where before I would guide the learning.
- My classroom is more flexible and I am not afraid to allow for an acceptable buzz of activity.

# How have I changed as an educator through this work? How is my idea of education changing? (Brent)

- I am more tired than before.
- I view teacher collaboration as critical - for growth in my practice, for professional support, and for more authentic student assessment
- I more frequently recognize, celebrate, and plan for individual interests - student choice is an element of almost every learning experience.
- I plan for stronger connections within and between learning experiences.
- I self-assess my teaching not only on what students have “learned” but by their enthusiasm for learning.
- Individualized assessment / feedback

QUESTIONS????