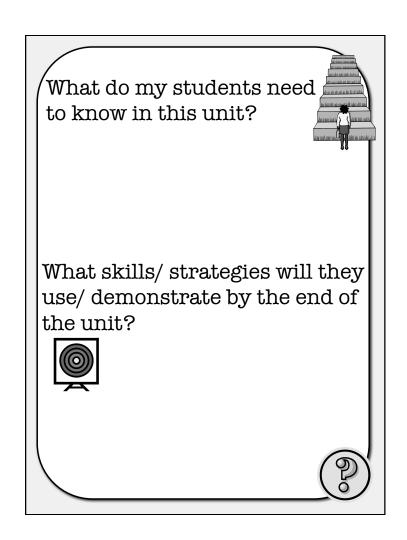
## **Lesson Study**

Facilitated by Leyton Schnellert

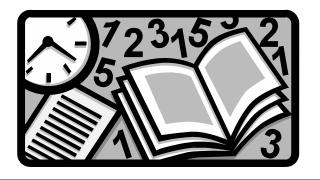
Barsby Secondary School February 28, 2011



Math 8 Unit Overview: Pattern and Algebra					
Big Ideas	<ol> <li>There are patterns in numbers that can be described</li> <li>Patterns repeat or grow, but are predictable</li> <li>We can describe patterns in charts, graphs, expressions with variables and constants and in words</li> </ol>				
Thinking Strategies	Connection making, visualizing and identifying patterns				
week	1	2	3	4	
Essential Questions	What techniques can we use to recognize and describe patterns?	How can we track changes and growth in a pattern? What does this mean about the pattern?	How can we represent what we see in patterns? How do mathematicians explain change?	How can we make and support logical predictions from the graphs?	
Lesson Topic	Number patterns- what goes in, what comes out	Animals that grow- what changes, what stays the same?	Patterns in T charts- Implicit and explicit relationships	What's in a line? Slopes, intercepts and rate of change.	
Thinking Strategy	Connection- making Important vs Interesting details	Visualizing modeling	Look for a pattern Connection- making	Connection- making Visualizing Inferring from a graph	
Teaching Strategy	Input-Output Machines Pattern rules	Build and isolate the change in a growing pattern Construct meaning through modeling	Describing patterns using expressions (variables, constant)	Graphing relationships, T chart, model, expression and graphs	
Carole Saundry, 2007					

## Stage 2: Assessment Plan

Performance Task(s)	
-Transfer to a new context	- All other forms of assessment
- Real world situation	



# Science 6/7 Ecosystems

## **Performance Task**

- -Mini documentary in partners using imovie and Garageband (prep requires story board and script)
- -Reflection/response to an article

## **Brainstorm**

What what we are looking for in the essay for your final projects?

### Unit: English 8- Friendship

## A A

### Performance Tasks

Summative Assessment Formative Assessment

-In-class writing: "Why I need good friends" Poem

- Connect: discuss topic
   using graphic organiser
   Process: Collect ideas in 4
- quadrants
   Student reflection on learning, ideas, info etc.
- -Visual Definition of a good friend: Definition, symbol, explanation and images
- -students present representation in small groups
- students self assess in relation to criteriapeers provide feedback
- Reflection on students' learning through the term:
- Praise, question, polish organizer
- -Students collect evidence of learning in learning log
- -Students set goals for next term

#### Unit: English 11 - Communication and Technology

#### Performance Tasks

Summative

Assessment

Formative Assessment

- personal essay: How communications technology impacts me personally -Personal essay: How does YouTube affect behavior

- create a video, blog or radio on how communications technology affects humanity/ society/other groups
- -Communications
  Technology timeline:
  -Quickwrites, class blog,
  group discussions,
  information circles, articles
  on impact of technologies
- Reflection based on metacognition journal work
- Metacognition journal every 3 weeks

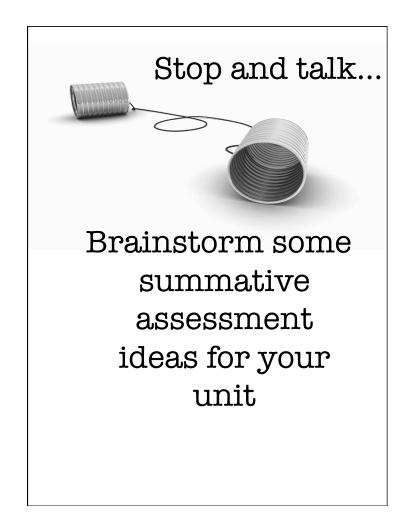


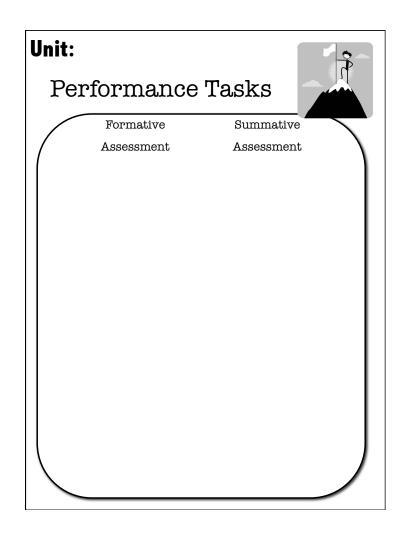
## Some Examples Residential Schools

Formative	Summative
- Ideas students	-final version of a
collected in 4	newspaper article
quadrants	
-student	-artistic
reflections on	representation of
ideas from texts	poem, explain of
(info, poetry, art,	meaning and
memoirs) read	techniques and
-student self-	reflection own
assessment in relation to criteria	learning
-criterion-	
referenced	
conferences with	
draft writing	
-praise, question,	
polish organizer	

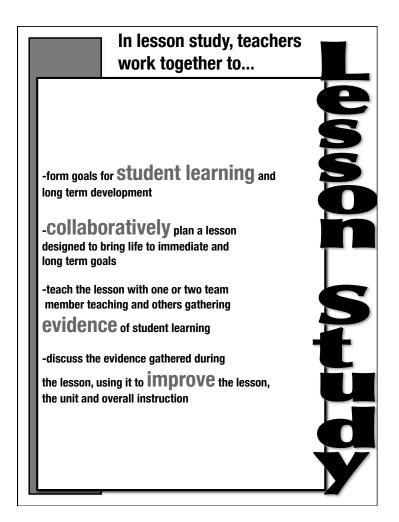
## How students integrate & apply what they learn

- -Incorporate key concepts and relevant skills into product design
- -Encourage student choice as part of the product design
- -Products should involve students in relevant and valued activities
- -Teach students skills necessary to successfully complete product
- -Use multiple criteria to assess the product
- -During and after product completion, encourage students to reflect on their learning





Iesson study is to plan, observe and discuss the research lesson in ways that strengthen the pathways of learning for teachers and students.



#### EQ: How are ecosystems impacted by our actions?

#### Key concepts

- -characteristics of ecosystems -respect for the environment
- -factors that affect the global distribution of biomes
- -effects on living things within an ecosystem resulting from changes in abiotic factors

Important skills or processes

- -identify effects
- -assess human impact
- -identify the main points in a science related article or Illustration (determine importance, infer, compare, evaluate, make connections

**Connecting** (eg. Engage/Activate prior knowledge/ Predict content/ Focus on a purpose)

- What are the characteristics of a biome?
- See what else you can find in the sources (website/folders) to help you with the task add to your thinking page
- Give 10 minutes to gather more information (books, articles, websites).
- Table Talk: Fact trade and agree on 3-5 defining characteristics.
- Report out/debrief: Most important defining characteristic. Explain why.
   How might characteristics and living things be connected in your biome?

**Processing** (eg. Construct meaning/Monitor understanding/ Process ideas

- Pose the challenge: find out about human impacts on your biome.
- Give 10 minutes to gather information (books, articles, websites).
- Table talk: Fact trade.
- Report out/debrief: Determine, highlight and report out: Pick a human impact on your biome and describe it.

**Transforming & Personalizing:** (eg. Synthesize ideas/ Apply knowledge/ Reflect on thinking and learning)

What do you know?

- -What questions do you have? How can we find out that info?
- -Represent a human impact on your biome

Pose question: Why should we care about what happens in our biomes?

## Guest teachers...in our biome!

including...
Mr Schnellert

What are the characteristics of a biome?

See what else you can find in the sources (website/folders) to help you with the task

add to your thinking page

## **Table Talk:**

Fact trade and agree on 3-5 defining characteristics

## Large group:

**Share and discuss** most important characteristics of your biome

Why?

**Impact** 

What is life like there?

What are humans doing to the area?

Using pictures, diagrams or a web show how humans are impacting the environment

#### **Essential Question**

How are ecosystems impacted by our actions?

#### Summative assessment

Describe the impact of human actions on the biome of your choice. Assess the effect of the impact on the ecosystem.

#### **Important Skills or Process**

Thinking skills needed: determining importance, inference, comparison, evaluation, making connections

#### **IRP Connections**

- -identify the main points in a science related article or illustration
- -abiotic and biotic elements in ecosystems
- -ecosystems with similar characteristics in different geographical locations
- -effects of altering an abiotic factor
- -assess human impact
- -show respect and sensitivity for the environment
- -identify factors that affect the global distribution of biomes
- -identify the effects on living things within an ecosystem resulting from changes in abiotic factors

#### **Previous lessons**

- -Student have learned about the abiotic and biotic elements that make up biome and the key factors that affect their distribution. (Notetaking charts, partner talk, video, websites, books)
- -Students have discussed the impact of human activity on a temperate rainforest (as a whole class with teacher, using the framework they will use for their own biome).

Big Ideas	Student Outcomes					
key concepts/essential understandings	Important skills or processes					
Essential question	Students will be able to					
Connecting						
Purpose: Engage/Activate prior knowledge/ Predict content/ Focus on a purpose:						
Processing						
Purpose: Construct meaning/Monitor understanding/ Process ideas						
Transforming & Personalizing	Transforming & Personalizing					
Purpose: Synthsize ideas/ Apply learning	knowledge/ Reflect on thinking and					
Brownlie, Feniak & Schnellert, 2006	6					