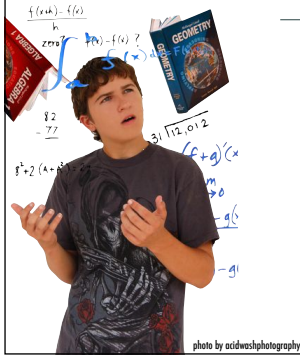


Making Math Make Sense

— [EDUC448 Week 4



Announcements

- [Annette will be advising in class on Feb. 8.
- [Shakey's fundraiser next Wednesday
- [Dropbox: green check is good
- [Observations: 1-2 pg summary for *all* 15 hours
- [Shannon had her baby!

Principles in Curriculum

1

— [Curriculum is

what you teach

Principles in Curriculum

1

Content should be rich, **varied**, and relevant.



photo by Lucy Dall

Principles in Curriculum

1

Includes mathematical processes of:

- problem solving
- reasoning
- communicating
- making connections
- representing

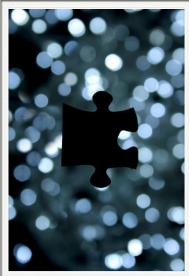


photo by Jerry Miller

Principles in Curriculum

1

Mathematically-rich environment with a **variety** of materials.



photo by Paula Eaton

Principles in Curriculum

1

— [**Child-centered** choices that reflect children's knowledge, abilities, and interest.



photo by Marjon Kruik

Principles in Instruction

2

— [Instruction is

how you teach

Principles in Instruction

2

— [Planning decisions based on knowledge of children's individual needs.

photo by Gregory Smith

Principles in Instruction

2

— Planning for and promoting **interactions** between children and with teacher.



photo by Roderick SG

Principles in Instruction

2

— Planning for a diverse setting and activities that include a **variety** of groupings



Principles in Instruction

2

— Facilitating **family-school** relations encouraging reciprocal relations between teachers and families.



Principles in Assessment

3

Assessment is how you

analyze performance.

Principles in Assessment

3

Assess teacher effectiveness as well as children's learning.



photo by June Tejari

Principles in Assessment

3

Includes **observing** and listening.

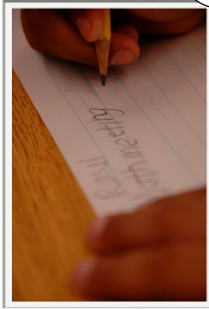


photo by Jonathon Powell

Principles in Assessment

3

Uses multiple **SOURCES** of evidence collected on a systematic basis.



Principles in Assessment

3

Benefits children and identify **strengths** and **needs**.



Principles in Assessment

3

T
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S

Principles in Assessment

3

Teacher effectiveness

Observe and listen

Multiple sources

Strengths/needs of student

Content Area Strands

Processing Strands

{ Number & Operations

Problem Solving

{ Algebra

Reasoning

{ Geometry

Communicating

{ Measurement

Making Connections

{ Data Analysis & Probability

Representing

Content Area Strands

Processing Strands

{ Number & Operations

Problem Solving

{ Algebra

Reasoning

{ Geometry

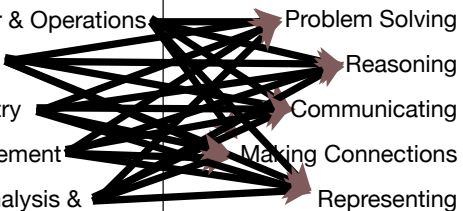
Communicating

{ Measurement

Making Connections

{ Data Analysis & Probability

Representing



Y.C. Ch. 3

— Work in groups to present one processing strand to the class. Highlight key ideas from the chapter.

- Problem Solving (pg. 29 – 33)
- Reasoning (pg. 34 – 38)
- Communication (pg. 38 – 40)
- Connecting (pg. 40 – 42)
- Representing (pg. 43 – 45)

What to Do When They Don't Speak English

Use **concise** language



photo by sudarshan vijayaraghavan

What to Do When They Don't Speak English

Use **manipulatives** and everyday objects



photo by sudarshan vijayaraghavan

What to Do When They Don't Speak English

Use modeling and **acting**



photo by Judy Baxter

What to Do When They Don't Speak English

Use **oral** descriptions



photo by Judy Baxter

What to Do When They Don't Speak English

Respect the **silent** periods



photo by Christian V.

What to Do When They Don't Speak English

Match the questions to the child's proficiency **level**



photo by Christian V.

What to Do When They Don't Speak English

Use the child's **first language** and culture



photo by Christian V.

Calculators (Burns ch.6)

— { Decide whether or not to use a calculator to figure out the answer.

— { Example 1:
 $6+22+4+303+6+219+14+23+7+9+1$

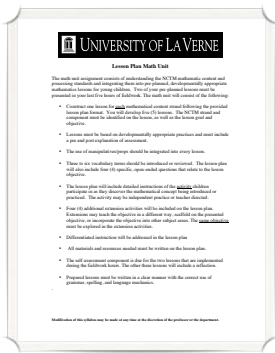
Calculators (Burns ch.6)

— [Decide whether or not to use a calculator to figure out the answer.

— [Example 2:

There are 7 tricycles and bicycles total. There are a total of 18 wheels. How many bicycles and how many tricycles are there?

Lesson Plan Format



Next Week

— [Print out the Algebra strand from the NCTM standards.

— [No Journal next week.

