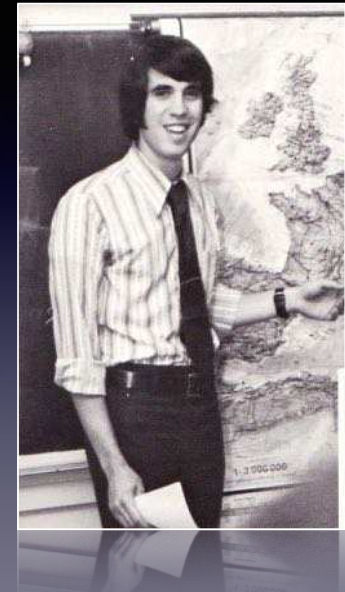


Peter Pappas ~ ED424 ~ [edtechhmethods.com](http://edtechhmethods.com)



1

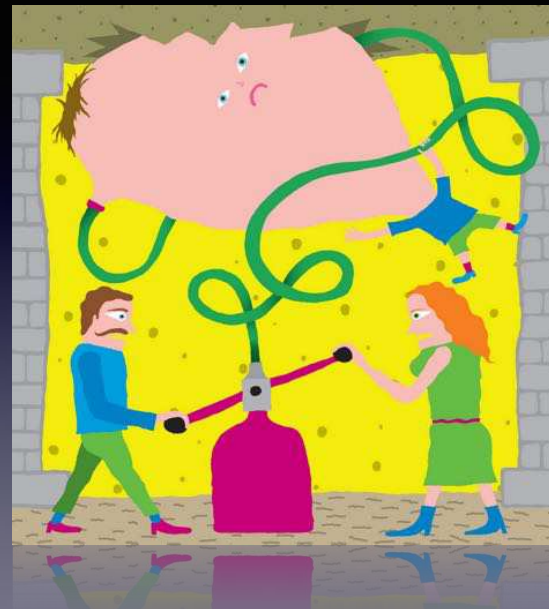
Information  
landscape  
of the  
traditional  
school



2



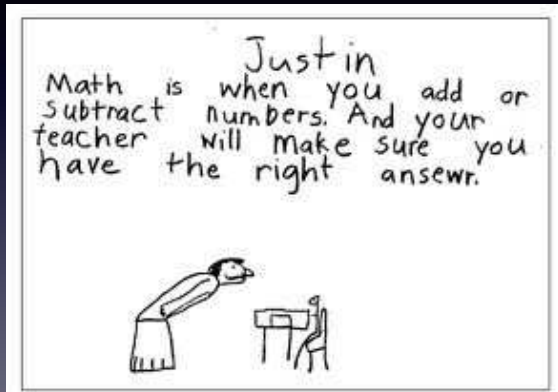
3



4

## Justin, a second grader, talks about math

From: *Math Is Language Too:  
Talking and Writing in the  
Mathematics Classroom*  
Phyllis Whitin



5

Question: A cruise ship carries 200 passengers and crew. Each life boat carries 30 people. How many lifeboats will the ship need?

Almost 1/3 of the 8th graders who took the NAEP math test answered:

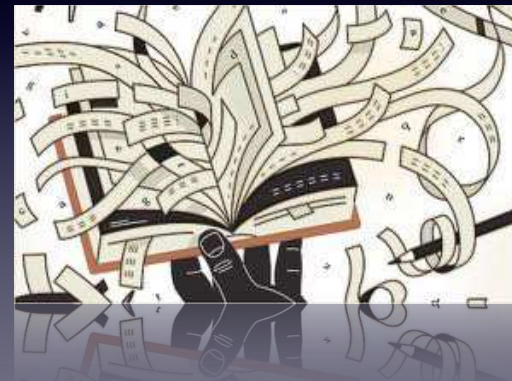
“6 remainder 20”



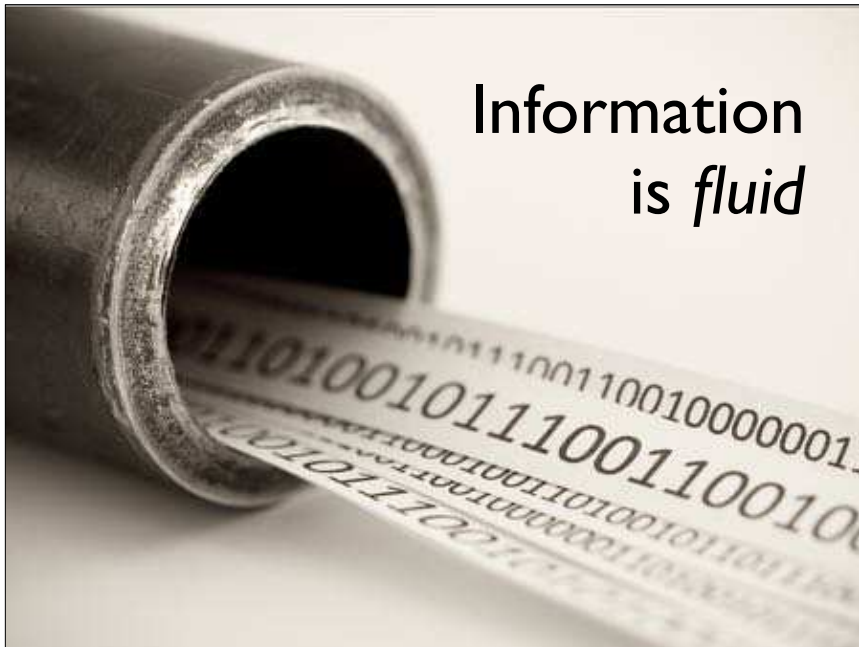
6

information flow in  
the digital age

Information is *fragmented*



8



9

So what happens in schools,  
now that life's become an  
open book test?



10



11

Idea #1:  
We need to teach a new  
(digital) literacy



12



Find, decode and critically  
evaluate information



13

Curate,  
store and  
responsibly  
share it



14

Idea #2: It's not the screen  
... it's the choice and  
creativity



15

Digital tech put us all in charge of info  
we access, store and share



16

## Idea #3: Learning is social



17

Is there a word that does not belong in the group?

clock  
anvil horse  
nose

18

Mastery through social learning  
can start at an early age

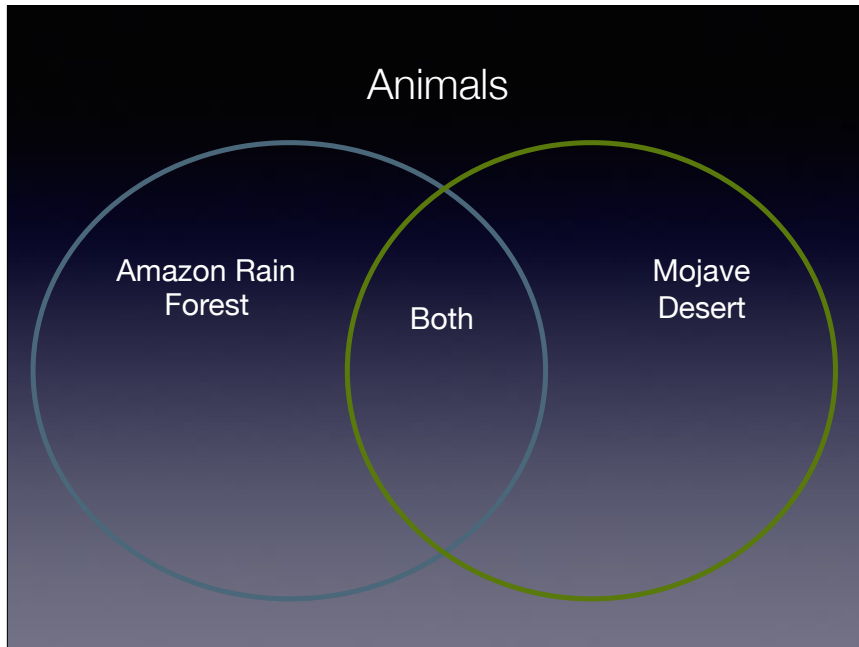


19

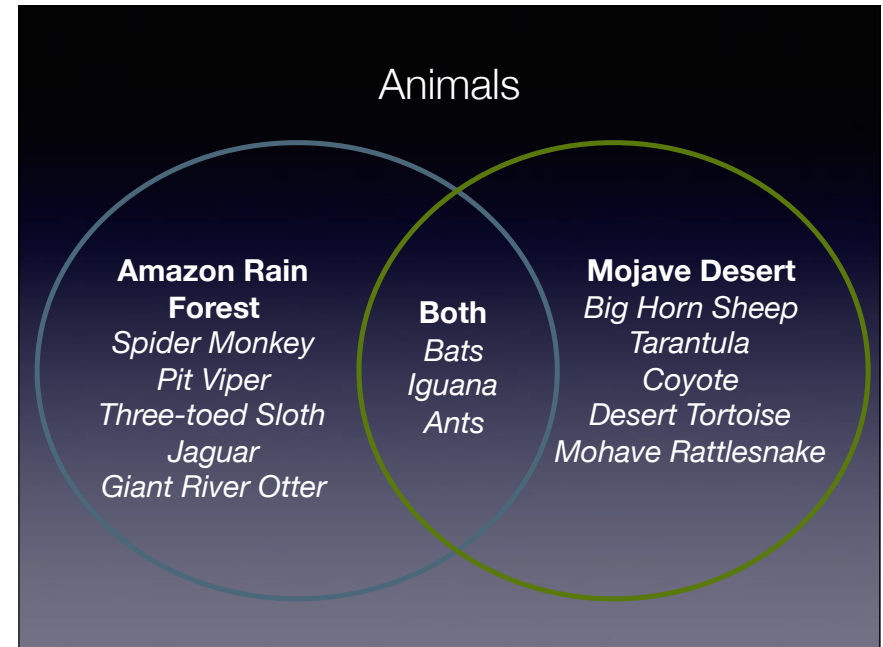
“Compare the animals of  
the rain forest and desert.”

Amazon Rain Forest	Mojave Desert
Spider Monkey	Bats
Pit Viper	Iguana
Three-toed Sloth	Ants
Jaguar	Big Horn Sheep
Giant River Otter	Tarantula
Bats	Coyote
Iguana	Desert Tortoise
Ants	Mohave Rattlesnake

20



21



22

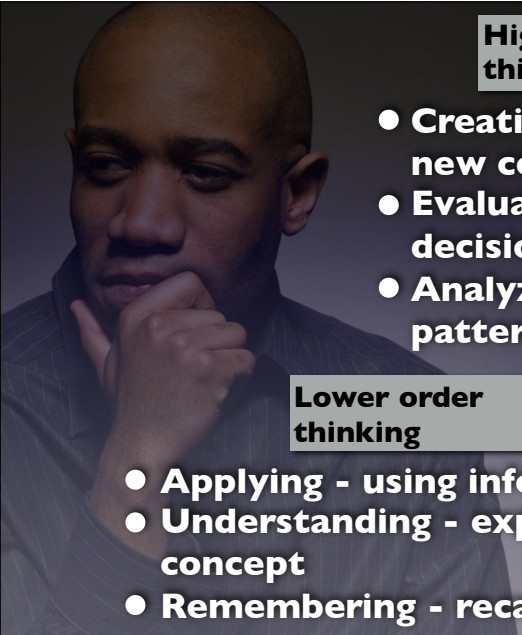
How would you  
characterize this lesson?

23

Idea #4:  
Foster higher order  
thinking

A 3x3 grid of numbers. The top two rows contain the number 5 in various colors and styles. The bottom row contains the number 2 in various colors and styles.

24



**Higher order thinking**

- **Creating** - generating new combinations
- **Evaluating** - justifying a decision or choice
- **Analyzing** - discovering patterns

**Lower order thinking**

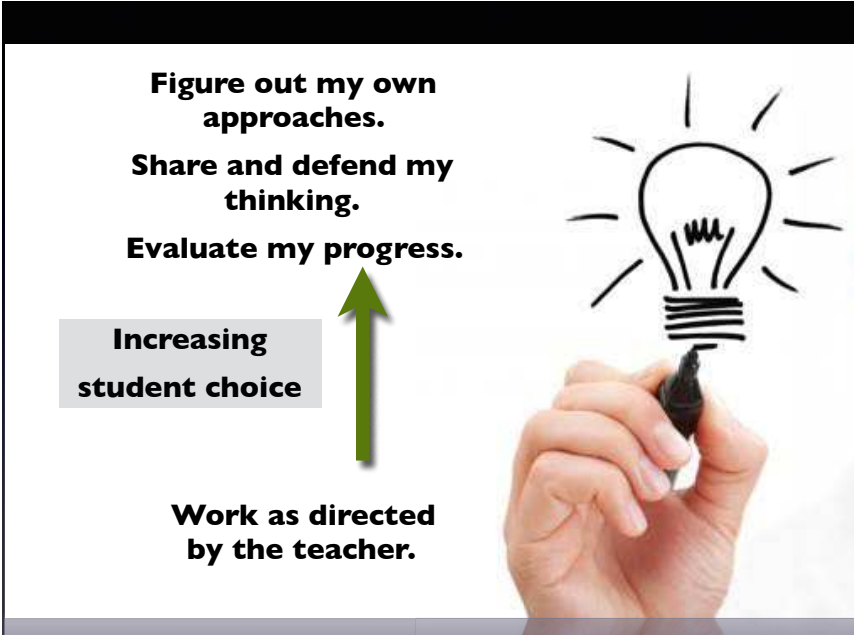
- **Applying** - using info in a new setting
- **Understanding** - explaining idea or concept
- **Remembering** - recalling information

25

**Figure out my own approaches.**  
**Share and defend my thinking.**  
**Evaluate my progress.**


**Increasing student choice**

**Work as directed by the teacher.**

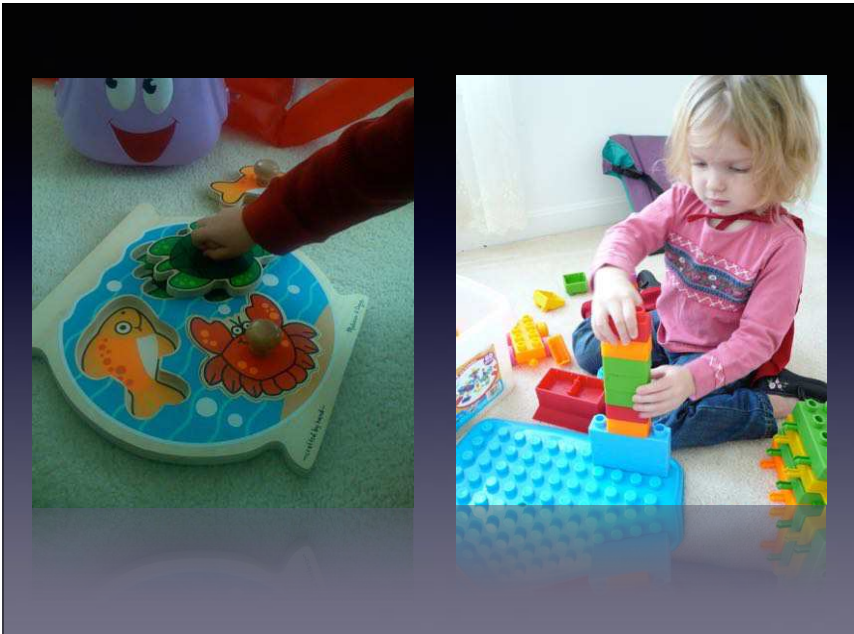


26

**Idea #5:**  
**Have the courage to be less helpful**



27



28



## Student choice fosters motivation and self-reflection

**Content** - what knowledge and skills will be studied?

**Process** - what materials, procedures, etc will be used?

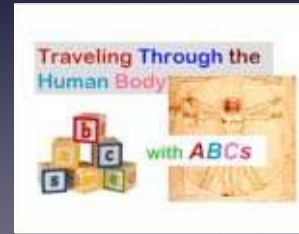
**Product** - what will students produce to demonstrate their learning?

**Evaluation** - how will the learning be assessed?

29

## 6th graders write ABC book

- Students study the organs of the body
- Develop a comparisons
- Create an ABC book



30

# K

is for  
Kidney

By~ Holly and Sarina

The kidneys separate waste from blood and turn it into urine. Most people have both a left and a right kidney.



31

# Kidney

By~Holly and Sarina

The kidneys can relate to a pool filter because both of them separate the bad things from the good things. The pool filter empties the bugs and leaves from the water and the kidneys, they get rid of the bad things in your blood and turn it into liquid waste.

# K



Pool filter

liquid waste

32



## Students reflect on what they learned



33

## Learning in the digital age

**Task** - Are students asked to do ***genuine*** higher order thinking?

**Interaction** - Does the learning include a social component?

**Choice** - Are students exploring their own options for content, process, product and assessment?

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