



Differentiating Instruction



Differentiating Instruction Using Web Tools Kids Know & Love by Terie Engelbrecht is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License](#).
Based on a work at docs.google.com.

Using Web Tools Kids Know & Love

Terie Engelbrecht
Marengo High School District #154

Background

- Science/Social Studies Teacher for 15 years
 - Science Division Chair
 - Teacher/Technology Coach
 - Adjunct Professor--Curriculum & Assessment

 - Contact info:
 - Email: mrsebiology@gmail.com
 - Twitter: [@mrsebiology](https://twitter.com/mrsebiology)
 - Skype: [mrsebiology](https://www.skype.com/name/mrsebiology)
 - Pinterest: [mrsebiology](https://www.pinterest.com/mrsebiology)
 - Blog: www.crazyteacherlady.com
-



Who are you?

Teachers/Admins/Other professionals?

Grade levels?

Use of web tools?

Differentiation with web tools?

What do you want to walk away with from this session?



Some food for thought....

The secret lies in respecting the pupil.

--Ralph Waldo Emerson

When children know uniqueness is respected, they are more likely to put theirs to use.

--Dorothy Briggs

When the students of tomorrow sit in the classrooms of yesterday, it is our teachers who are failing.

--Bill Ferriter

If we teach today's students as we taught yesterday's, we rob them of tomorrow.

--John Dewey



**We can respect student
uniqueness and ability to
show what they know in
their own way using**

BLENDED LEARNING



True or False?



- 1. Blended learning involves offering online classes.
- 2. Blended learning involves encouraging teachers to create their own websites for student and parent use.
- 3. Blended learning involves basic word processing, spreadsheet, and presentation skills that are done in Google Apps.
- 4. Blended learning enables schools to standardize curriculum by having it online.

Blended Learning

What is it?

Why use it?



Photo courtesy of [tgarrett](#)



Blended Learning

- Combines the best ways to learn online with the best ways to learn in a face-to-face classroom
 - It's all about balance
 - Learning online ~~≠~~ sit (in front of a computer) & get
 - Examples: WebQuests, [PBL units](#), Online discussion tools (Vyew, Google Hangout), Backchannelling using LMS
- What it's not:
 - A class with a website
 - Entirely online
 - The same between units, classes, or schools
 - Doing the same thing we've been doing on computers, only now it's in the cloud

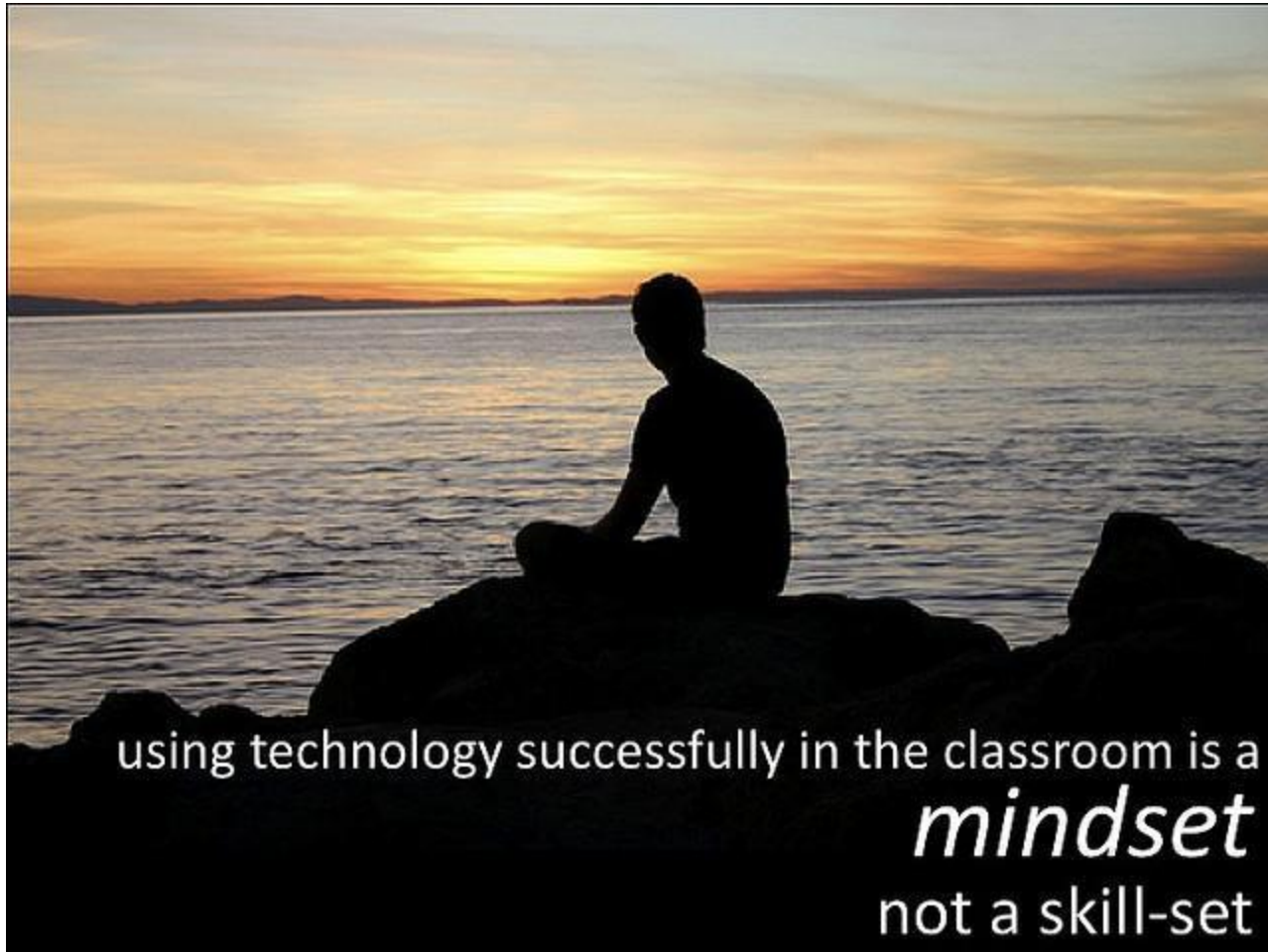


Why Use Blended Learning?

- Asynchronous Learning combined with Synchronous Learning
 - Allows for different pacing and different avenues for sharing ideas and learning
- Teaching students various modes of interaction
 - Some students more likely to interact online than in the classroom
 - Digital citizenship
- Helps develop critical thinking in an online environment if tasks are designed properly & proper tool used for the intended learning
 - Online tools used for creation, synthesis, and evaluation
 - Include face-to-face activities
- Access to resources inside and outside of class



Blended Learning Promotes a Differentiated Mindset



using technology successfully in the classroom is a
mindset
not a skill-set

Principles of Differentiation

The reasons
behind the
choices



Photo courtesy of [orangejack](#)



What is differentiation?



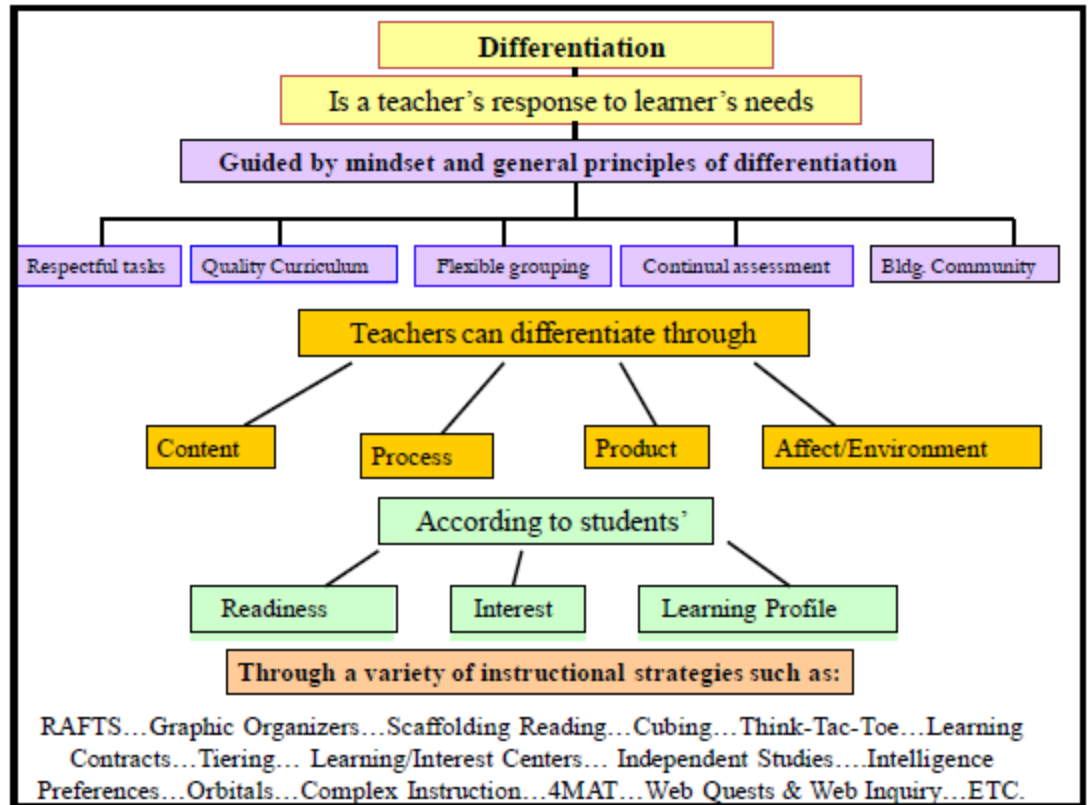
- . A = Providing students with choices.
- . B = Giving students different ways to acquire content.
- . C = Giving students different tasks based on their ability.
- . D = Meeting students where they are with challenging tasks.



Differentiation is...

A sequence of common sense decisions made by teachers with a ***student-first orientation***

It's a MINDSET



Technology
or not....



Differentiation starts with
some basic fundamental
principles and beliefs

Differentiation Principles #1 & #2

- *All students can learn. Teachers must know how their students learn, and teach students how to improve their ability to learn.*
 - Pre-assessments
 - Surveys-MI, Learning Styles, Interest Inventories
 - Informal assessments
 - Knowing the tech needed to help students learn

- *It is the teacher's job to provide opportunities so all students can learn. Therefore, a teacher needs to know where his/her students' learning is at all times.*
 - Ongoing formative assessments using technology to keep track of learning progress



Differentiation Principle #3

- *The standards are the floor, not the ceiling. Differentiation should take place upwards FROM the standards, not up TO the standards.**
 - **Everyone** needs to meet the standards.
 - Plan differentiated activities for on target and above target students 1st; plan for below target as needed



Photo courtesy of [krystal.pritchett](#)

▶ *Standards = objectives, learning goals, targets, or state standards or benchmarks

Differentiation Principle #4

- *Differentiate using engaging, cooperative methods, teaching students learning strategies & skills using current collaborative Web 2.0 technology.*
 - Teach more than content using Web 2.0 tools
 - Teach collaboration, critical thinking, synthesis, evaluation skills through the CREATION of web content



[Image courtesy of fishbrain.randy](#)



What you need to remember is...

- Different web tools will challenge learners to think in different ways.
- It's up to the teacher to provide students with the tools they can use to succeed.
- It's up to the teacher to teach students how to make the right choices when choosing their tools for learning.



Using Web Tools for Differentiation



Image courtesy of [bensheldon](#)

So many tools, so many choices....



Which web tools have you used/seen?

Animoto Google sites ToonDoo
Evernote Prezi GoAnimate
Juno Voicethread Creately
Diigo Glogster EDU Wisemapping
Socrative WebDoc Mindomo
Blabberize Museum Box Mindmeister
Fotobabble Weebly Edmodo
Sliderocket Jing Schoology
Google Docs Gliffy Timetoast
Audacity Stupeflix Crocodoc
AudioPal Pixton SumoPaint



Examples

- **Assessment Tools**: Socrative, Testmoz, Juno
 - **Productivity Tools**: Google Docs, Evernote, Diigo, Typewith.me
 - **Poster makers**: Glogster EDU, WebDoc
 - **Video/presentations**: Animoto, Stupeflix, Voicethread, Prezi, Voki, Blabberize, Present.me, Qwiki
 - **Mindmapping**: Wisemapping, Mindomo, Creately, Popplet, Gliffy
 - **Photo editing/drawing**: Pizap, SumoPaint, Dabbleboard, PicMonkey
 - **Cartoon makers**: Pixton, ToonDoo, KerPoof
 - **Website tools**: Google Sites, Weebly, Webs, Wix
-



Assessment Tools-Socrative (socrative.com)

My room number

Active users in room

Multiple Choice


Ask a MC question, display results.

True/False

Ask a T/F question, display results.

Short Answer

Open-ended question, display responses.

Quick Quiz 

Run a self-paced quiz.

Exit Ticket

Get an end-of-class pulse-check.

Space Race

Run a quiz as game.

Manage Quizzes

Create, Edit, Delete Quizzes & Races.

Clear room

Remove all users from room.

Change room number

Change your room number

Training Tour

Take a tour of Socrative's platform

Feedback

Make Socrative better for you.

Socrative Results

Spreadsheet emailed
or downloaded

Pink = wrong answer

Pre-assessments, checks
for understanding, quizzes,
Review (Space Race)

Great for informing your
instruction!

Microsoft Word ribbon: \$ % 123 | 10pt | B Abc A | [Grid] | [List] | [Align]

Enter first and last name:

| B | C | D | E | F | G | H |
|----------|----------|----------|----------|----------|-----------|-------------|
| ACT Ques | ACT Ques | ACT Ques | ACT Ques | ACT Ques | Number of | Total Score |
| B | H | A | J | C | 2 | 40 |
| D | F | B | G | C | 0 | 0 |
| B | G | A | G | A | 2 | 40 |
| B | H | C | G | C | 2 | 40 |
| B | H | D | F | A | 5 | 100 |
| B | F | B | J | B | 1 | 20 |
| B | J | D | H | C | 2 | 40 |
| A | H | A | G | A | 2 | 40 |
| B | F | A | J | A | 2 | 40 |
| B | H | B | J | A | 3 | 60 |
| C | | | | | 0 | 0 |
| A | J | B | G | A | 1 | 20 |
| A | H | B | H | B | 1 | 20 |
| A | G | C | G | B | 0 | 0 |
| B | H | D | G | A | 4 | 80 |
| D | H | A | J | A | 2 | 40 |
| D | G | C | J | C | 0 | 0 |
| B | H | D | F | A | 5 | 100 |
| B | J | D | J | B | 2 | 40 |
| A | J | D | F | C | 2 | 40 |
| B | G | D | F | A | 4 | 80 |
| B | J | D | H | A | 3 | 60 |
| B | G | C | H | B | 1 | 20 |
| A | J | A | J | B | 0 | 0 |
| B | J | B | J | C | 1 | 20 |
| A | J | A | F | C | 1 | 20 |
| B | J | A | H | A | 2 | 40 |
| B | H | D | J | C | 3 | 60 |
| B | H | A | G | B | 2 | 40 |
| | | | | | 0 | 0 |



Assessment Tools-Testmoz (testmoz.com)

Testmoz Test

This quiz determines if you know anything about Testmoz.

Question #1 (1 point)

Testmoz is:

- a self-aware computer network
- a monster terrorizing Japan
- an online test generator
- an ultra-modern hair style

Question #2 (1 point)

Testmoz is really easy to use:

- True
- False

Question #3 (1 point)

Testmoz features: (check all that apply)

- 4 question types
- lots of advertisements
- password protected tests
- detailed reports

Question #4 (2 points)

Testmoz requires you to keep track of your quiz URLs. If you don't know what one is, you will have a hard time using Testmoz. What is the URL of this page? (hint: you can copy and paste it from your address bar)

Answer:

[Logout](#)

Assessment Tools-Juno (www.junoed.com)

The screenshot shows a web browser window with the URL <https://junoed.com/app/0.php?user=323656>. The page has a light green header with the text "My Documents" and "Help Logout". Below the header, there are three dropdown menus: "Science", "Life Sciences", and "All Topics". To the right of these menus are four buttons: "New", "Browse", "Undelete", and "Students", followed by an "Account" button. The main content area is a list of assessment tools, each with a colored dot (red, grey, or purple) and a title. The list includes:

- 2nd Semester Biology Final Progress Check 2011-12
- Bio Semester 1 Progress Check 2011-2012
- Cell Chemistry Progress Check #1 Obj 1b & 1c
- Cell Chemistry Progress Check #2 Obj 1b & 1c
- Cell Chem Pre-Assess Objective #1 CS
- ▶ Cell Reproduction Activities & Progress Checks
- Cell Reproduction Pre-Assessment
- Cell Structure Hierarchy Obj 1a Progress Check
- Cell Structure Objective #1 Activities: Cell Chemistry
- Cell Structure Objective #1 Activities: Vocabulary 1/8 10:34am
- Cell Structure Unit Check 11-12
- ▶ Cell Structure Unit Objective #1
- Ecology Test 2011-2012
- Ecology Test SA 2011-2012
- ▶ Genetics Unit Activities
- Genetics Unit Final Progress Check
- ▶ Intro to Chemistry Unit Progress Checks
- Macromolecules Progress Check #1
- Macromolecules Progress Check #2
- Macromolecules Progress Check #3
- ▶ Membrane Transport Activities
- Membrane Transport Progress Check #1
- Membrane Transport Progress Check #2
- Membrane Transport Progress Check #3 2/29 2:00pm
- Membrane Transport Progress Check #3 2/29 2:00pm
- Membrane Transport Progress Check #3 v2
- Membrane Transport Unit Final Progress Check
- Organelles Progress Check #1
- Organelles Progress Check #2
- Organelles Progress Check #3
- Photosynthesis & Cell Respiration Final Progress Check
- Photosynthesis & Cell Respiration Progress Check #1
- Photosynthesis & Cell Respiration Progress Check #2



New Question New Slide Copy Delete Media Format

Preview Settings Revert Done

Cell Chem Pre-Assess Objective #1 CS

Objective #1: Cell Chemistry

1. Use ALL of the following words below in a flow chart (use --> for arrows) that organizes the words from smallest... (1 pt)
2. A covalent bond is MOST connected to which of the words below? (1 pt)
3. What word is connected MOST to amino acids, fatty acids, and monosaccharides? (1 pt)
4. Which of the following pairs of words is NOT correctly matched? (1 pt)
5. What's the difference between covalent, ionic, and hydrogen bonds? (1 pt)
6. Which does NOT correctly match the macromolecule listed to its correct function in cells? (1 pt)
7. Study the picture below: (1 pt)
8. What sets proteins and nucleic acids apart from carbohydrates and lipids? (1 pt)
9. blank_atom_diagram.jpg (1 pt)
10. Describe the structure of an atom. (1 pt)
11. Explain how covalent and ionic bonds are: (1 pt)
12. a) How are hydrogen bonds SIMILAR to covalent & ionic bonds? (1 pt)
13. What causes hydrogen bonds to occur? (1 pt)
14. Match the subunit on the left that gets hooked together repeatedly in big long chains to make the macromolecule on the r... (1 pt ~4)

Multiple Choice Points 1 Partial or extra credit

Question

What word is connected MOST to amino acids, fatty acids, and monosaccharides?

- | Choices | Correct |
|--|----------------------------------|
| <input type="text" value="proteins"/> | <input type="radio"/> |
| <input type="text" value="nucleotides"/> | <input checked="" type="radio"/> |
| <input type="text" value="nucleic acids"/> | <input type="radio"/> |
| <input type="text" value="ionic bond"/> | <input type="radio"/> |

More Explain Annotate

Objective

- Choices in random order
- Questions in random order
- Show copy of preceding slide



4th hour Biology

5th hour Biology

| <input checked="" type="checkbox"/> Online | Done | Score/120 |
|--|--|-----------|
| <input type="checkbox"/> | ✓ | 107 89% |
| <input type="checkbox"/> | ✓ | 96 80% |
| <input type="checkbox"/> | ✓ | 96 80% |
| <input type="checkbox"/> | ✓ | 115 96% |
| <input type="checkbox"/> | ✓ | 112 93% |
| <input type="checkbox"/> | ✓ | 111 93% |
| <input type="checkbox"/> | ✓ | 113 94% |
| <input checked="" type="checkbox"/> | <div style="width: 43%; background-color: #808080;"></div> | 52 43% |
| <input type="checkbox"/> | ✓ | 113 94% |
| <input type="checkbox"/> | ✓ | 109 91% |
| <input type="checkbox"/> | ✓ | 107 89% |
| <input type="checkbox"/> | ✓ | 77 64% |
| <input type="checkbox"/> | ✓ | 117 98% |
| <input type="checkbox"/> | ✓ | 109 91% |
| <input type="checkbox"/> | ✓ | 105 88% |
| <input checked="" type="checkbox"/> | <div style="width: 84%; background-color: #808080;"></div> | 101 84% |
| <input type="checkbox"/> | ✓ | 111 93% |
| <input checked="" type="checkbox"/> | | |
| <input type="checkbox"/> | ✓ | 109 91% |
| <input type="checkbox"/> | ✓ | 110 92% |
| <input checked="" type="checkbox"/> | | |
| <input type="checkbox"/> | ✓ | 111 93% |
| <input type="checkbox"/> | ✓ | 105 88% |
| <input type="checkbox"/> | ✓ | 102 85% |

Student names would appear here.

A progress bar indicates students who are not done with the assessment. A check mark indicates they are finished. You can see their progress as they take the assessment.

Edit Ecology Test 2011-2012

New Question

New Slide

Delete

Media

Format

Ecology Test 2011-2012

1. What is ecology? (1a, 1-4) (4 pt)
2. A breeding pair of rabbits escaped from their cage behind a farmer's barn. (4 pt)
3. What kind of population growth is shown in the graph below, and why? (2a, 1-4) (4 pt)
4. If the deer had unlimited resources in their habitat, what would the graph above look like? (2a, 2/4) (4 pt)
5. The area where the deer live starts to go into a drought in month 5. (4 pt)
6. Study the graph below. (4 pt)
7. A student grew a yeast culture on sterilized nutrient medium in a closed dish for five days. (4 pt)

8. In Figure 4-2 (below) how could the carrying capacity of the culture dish be increased? (2a, 2/4) (4 pt)

9. Which is a valid conclusion you can draw from the data presented in this student's experiment? (Sci Inq 1F, Ecology 2c, ... (4 pt)

10. When you are reading about community ecology in your spare time, you come across the chart below. (4 pt)

11. The symbiotic relationship between a flower and the insect that feeds on its nectar is most likely an example of: (3b, ... (4 pt)

12. Some birds are known as honey guides because they may be followed by humans to wild beehives. (4 pt)

13. Which of the following is FALSE about the roles of autotrophs and heterotrophs in ecosystems? (4a, 2/4) (4 pt)

14. Which of the following is a food chain that the food web below? (4b, 2/4) (4 pt)

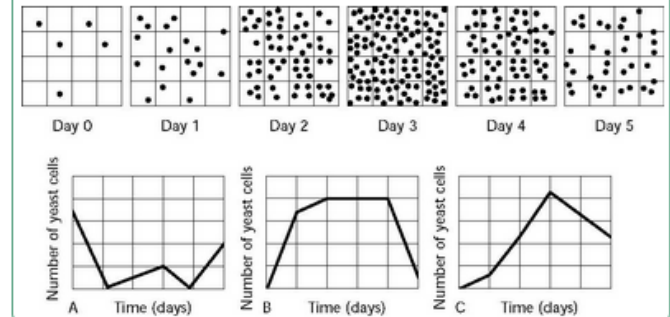
Multiple Choice

Points 4

Partial or extra credit

Question

In Figure 4-2 (below) how could the carrying capacity of the culture dish be increased? (2a, 2/4)



Choices

Points

Add more organisms to the culture dish.

2

Let the experiment run for a longer amount of time.

2

Add more culture media that they use for food.

4

Introduce another species of yeast to the dish.

2

More Annotate

Objective

2a

None

Choice

1a

Quest

1b

1c

1d

2a

2b

2c

3a

3b

3c

3d

4a

After entering objectives, you get a drop down while creating your questions.

Ecology Test 2011-2012

Title Ecology Test 2011-2012

- Assessment: Test, Quiz
- Exercise: Worksheet, Homework
- Lesson: Slideshow, Textbook

Subtotal test scores by objective
List objectives covered, one per row:

1a
1b
1c
1d
2a
2b
2c
3a
3b
3c
3d
4a
4b
4c
4d
5a
5b
5c
5d

List objectives by number or list out completely

- Math
- Science
 - Life Sciences
 - Anatomy, Physiology
 - Cells
 - Ecology
 - Evolution
 - Genetics
 - Other
 - Test
- Physical Sciences
- Earth Sciences
- Social Studies

List Scores

All Classes

Show Raw Percent

Text Size 12

Print Done

Can also see scores by normalized percents or raw points.

Ecology Test 2011-2012

4th hour Biology

| | 1a | 2a | 2c | 3a | 3b | 4a | 4b | 4c | 4d | 5a | 5b | 5d |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 120 | 4 | 28 | 4 | 20 | 8 | 4 | 12 | 8 | 12 | 4 | 12 | 4 |
| 82 | 100 | 89 | 25 | 100 | 75 | 50 | 83 | 38 | 83 | 100 | 83 | 75 |
| 98 | 100 | 89 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 80 | 50 | 68 | 50 | 100 | 75 | 50 | 83 | 75 | 100 | 100 | 83 | 75 |
| 87 | 75 | 89 | 100 | 90 | 75 | 100 | 83 | 38 | 92 | 100 | 100 | 100 |
| 69 | 100 | 75 | 75 | 85 | 63 | 50 | 50 | 50 | 50 | 100 | 67 | 75 |
| 75 | 50 | 61 | 100 | 80 | 88 | 50 | 67 | 75 | 100 | 100 | 67 | 100 |
| 93 | 50 | 89 | 50 | 100 | 100 | 100 | 83 | 100 | 100 | 100 | 100 | 100 |
| 66 | 100 | 57 | 100 | 70 | 75 | 50 | 50 | 50 | 83 | 50 | 67 | 75 |
| 88 | 75 | 86 | 50 | 100 | 100 | 50 | 100 | 50 | 92 | 100 | 100 | 100 |
| 96 | 100 | 86 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 |
| 94 | 100 | 96 | 50 | 90 | 100 | 50 | 100 | 100 | 100 | 100 | 100 | 100 |
| 90 | 100 | 89 | 100 | 80 | 100 | 100 | 100 | 38 | 100 | 100 | 100 | 100 |
| 83 | 25 | 93 | 50 | 80 | 100 | 100 | 100 | 75 | 75 | 100 | 67 | 100 |
| 73 | 100 | 64 | 50 | 95 | 38 | 50 | 67 | 50 | 75 | 100 | 100 | 75 |
| 96 | 100 | 82 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 79 | 100 | 71 | 100 | 70 | 75 | 50 | 83 | 38 | 100 | 100 | 100 | 100 |
| 89 | 100 | 86 | 75 | 100 | 75 | 100 | 83 | 88 | 83 | 100 | 100 | 75 |
| 89 | 100 | 86 | 100 | 90 | 88 | 100 | 83 | 100 | 75 | 100 | 100 | 75 |
| 79 | 100 | 75 | 50 | 80 | 63 | 100 | 83 | 88 | 75 | 100 | 83 | 75 |
| 88 | 100 | 86 | 100 | 90 | 75 | 50 | 83 | 75 | 100 | 100 | 100 | 100 |
| 73 | 100 | 71 | 75 | 75 | 75 | 50 | 67 | 75 | 67 | 100 | 67 | 75 |
| 81 | 100 | 57 | 50 | 100 | 100 | 100 | 83 | 88 | 92 | 100 | 67 | 75 |
| 82 | 75 | 75 | 100 | 75 | 75 | 50 | 100 | 38 | 100 | 100 | 100 | 100 |
| 90 | 100 | 64 | 75 | 100 | 100 | 100 | 100 | 88 | 100 | 100 | 100 | 100 |
| 97 | 100 | 96 | 100 | 100 | 100 | 50 | 100 | 100 | 92 | 100 | 100 | 100 |
| 93 | 100 | 82 | 50 | 100 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 94 | 100 | 82 | 100 | 100 | 100 | 100 | 100 | 75 | 100 | 100 | 100 | 100 |
| 99 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 88 | 100 | 100 | 100 | 100 |
| 93 | 100 | 93 | 50 | 100 | 100 | 100 | 83 | 63 | 100 | 100 | 100 | 100 |
| 77 | 50 | 82 | 50 | 85 | 75 | 100 | 100 | 50 | 75 | 50 | 67 | 75 |

Objective numbers

Norm wanted to know if adding peat mass to sand would affect its ability to hold water. He put 200 mL of pure sand into container A. He put a mixture of 80% sand and 20% peat moss into container B. He put a mixture of 60% sand and 40% peat moss into container C. He put a mixture of 40% sand and 60% peat moss into container D. He added water to each container and measured the amount of water the contents would absorb. He dried the sand and peat moss and repeated the experiment 5 times. He collected the following data:

| Composition of Mixture | Water Holding Capacity (mL) | | | | |
|-------------------------|-----------------------------|-----|-----|-----|-----|
| 100% sand | 74 | 80 | 70 | 71 | 74 |
| 60% sand, 40% peat moss | 86 | 88 | 90 | 92 | 94 |
| 40% sand, 60% peat moss | 110 | 116 | 104 | 108 | 112 |
| 80% sand, 20% peat moss | 84 | 82 | 86 | 82 | 84 |

This is actually a picture that was inserted



Based on Norm's data, what can he conclude? (Sci Inq, 2e)

- Norm should conclude that the more peat mass that was added to the sand the less amount of water the mixture could hold.
- Norm should conclude that the peat moss had a negative affect on sand's ability to hold water, meaning the sand with peat moss held less water than sand alone.
- Norm should conclude that added peat moss had no affect on sand's ability to hold water.
- Norm should conclude that the more peat moss that was added to the sand the more water the mixture could hold.

Can increase/decrease font size in the options menu



Progress bar



Navigation buttons



So, how could you
use these tools in a
DI classroom?



Productivity Tools-Google Drive

+Terie Search Images Maps Play YouTube News Gmail Drive Calendar More -

Google

Terie Engelbrecht 0 + Share

Drive

My Drive

- ▶ Biology
- ▶ Comp Apps
- ▶ Computer Apps Summer
- ▶ Division Chair
- ▶ Earth Science
- ▶ Edcamp Chicago
- ▶ EDU6020 Assessment
- ▶ EDU6630 Curriculum Aurora
- ▶ FACT spreadsheets
- ▶ IMS
- ▶ Inst/Tech Coach
- ▶ Metric and Measurement Unit
- ▶ Miscellaneous
- ▶ Newton's Laws
- ▶ NSTA Nomination Docs
- ▶ Phys Science
- ▶ Physical Geology
- ▶ Presentations

Shared with me

Starred

Recent

More ▾

Download Google Drive

| <input type="checkbox"/> | TITLE | OWNER | LAST MODIFIED |
|--------------------------|--|-------|----------------------------------|
| <input type="checkbox"/> | ★ Web Tools Survey Offline | me | Jul 20 <small>me</small> |
| <input type="checkbox"/> | ★ EdCamp Chicago 2012 Twitter Handles Shared Offline | me | Jul 8 <small>Carol Broos</small> |
| <input type="checkbox"/> | ★ Miscellaneous | me | Jul 6 <small>me</small> |
| <input type="checkbox"/> | ★ Biology | me | Jul 3 <small>me</small> |
| <input type="checkbox"/> | ★ Phys Science | me | Jul 3 <small>me</small> |
| <input type="checkbox"/> | ★ Division Chair | me | Jul 3 <small>me</small> |
| <input type="checkbox"/> | ★ Inst/Tech Coach | me | Jul 3 <small>me</small> |
| <input type="checkbox"/> | ★ Sample Science Inquiry Pre-Assessment | me | Jun 28 <small>me</small> |
| <input type="checkbox"/> | ★ Copy of Educational Experiences Offline | me | Jun 26 <small>me</small> |
| <input type="checkbox"/> | ★ Copy of educational experiences- Zach Montgomery Offline | me | Jun 26 <small>me</small> |
| <input type="checkbox"/> | ★ Computer Apps Summer Shared | me | Jun 26 <small>me</small> |
| <input type="checkbox"/> | ★ Copy of Six Ways to Look at Badging Systems Designed for Learning Offline | me | Jun 25 <small>me</small> |
| <input type="checkbox"/> | ★ Letter of Introduction.docx Offline | me | Jun 25 <small>me</small> |
| <input type="checkbox"/> | ★ Untitled document | me | Jun 25 <small>me</small> |
| <input type="checkbox"/> | ★ Meg O. Twitter | me | Jun 25 <small>me</small> |
| <input type="checkbox"/> | ★ MCHS Tech Resources - Sample Test Shared | me | Jun 21 <small>me</small> |
| <input type="checkbox"/> | ★ MCHS Tech Resources - Sample Presentation Shared | me | Jun 21 <small>me</small> |
| <input type="checkbox"/> | ★ MCHS Tech Resources - Register for Courses Shared | me | Jun 21 <small>me</small> |
| <input type="checkbox"/> | ★ MCHS Tech Resources - Contact Your Instructor Shared | me | Jun 21 <small>me</small> |
| <input type="checkbox"/> | ★ Untitled document | me | Jun 21 <small>me</small> |
| <input type="checkbox"/> | ★ Shapes Shared Offline | me | Jun 20 <small>me</small> |
| <input type="checkbox"/> | ★ Untitled presentation | me | Jun 20 <small>me</small> |
| <input type="checkbox"/> | ★ T. Engelbrecht Summer School log July 11-12 | me | Jun 19 <small>me</small> |
| <input type="checkbox"/> | ★ T.Engelbrecht 11-12 summer school log | me | Jun 19 <small>me</small> |
| <input type="checkbox"/> | ★ ... | --- | Jun 19 |



Productivity Tools-Evernote (evernote.com)

Trunk Upgrade Gift mrsebiology

EVERNOTE Search [New Note](#)

▼ Notebooks

- All Notes (540)
- 1:1 (5)
- 1:1 Meetings (11)
- 2nd semester gr... (87)
- Bills (102)
- Biology (19)
- Blog posts (4)
- BLT (5)
- FOCUS (3)
- Google Apps Class (5)
- Grade sheets 1... (44)
- Harassment AU (8)
- mrsebiology's ... (163)
- Parent Contacts (6)
- PBL training (7)
- Physical Geology (24)
- Physical Science (3)
- Portfolio Ideas (1)
- Running (27)
- Teacher Coach (5)
- Tech Camp (6)
- To-Do Lists (2)
- Web pages (3)

View Options ▼

Herbert, Spring, IL to 541 N Rush St, Chicago...

7/21/12 Print Show for all steps: Text only | Maps | Street View Include large map Roll over the directions to customize each step. Directions to 541 N Rush St, Chicago, IL 60611

Chemical bond discovered that only exists i...

7/20/12 Space Log in My New Scientist Home News In-Depth Articles Blogs Opinion TV Galleries Topic Guides Last Wo...

Possible 1st day exercise

7/19/12 Last year during a staff professional development, we played a fun little game called Would You Rather? A moderator asked a series of ridiculous questions and the staff had to choose

Swarming invasive insect found in US for 1...

7/18/12 Discover Yahoo! With Your Friends LoginLearn more close Swarming invasive insect found in US for 1st time By JESSIE L. BONNER | Associated Press - 1

Cathe Friedrich Workout DVDs and Accessories Conf ...

7/18/12 Thank you for placing your order. Your order number is 101657.

Road ID® - Order Receipt

7/18/12 Print Thank You for your order. Below is your receipt: You can check the status of your order anytime by clicking on the "My Account" link on our homepage. A...

Marengo Disposal 7-20-2012 bill confirmation Powered by IPAYX

7/17/12 Marengo Disposal Co. Payment Approved - Thank You! Terie R Engelbrecht - Payment Receipt Tuesday July 17, 2012 09:51 pm Account Amount Pay

Confirmation GEICO 7-15-2012 bill ★★★★★

7/17/12 My Policies: Auto My Service Center | Privacy Policy | Security | Logoff ...

July Confirmations

7/17/12 E-bill Payment Confirmation You can print this page for your records or click the E-bills link to return to

Herbert, Spring, IL to 541 N Rush St, Chicago, IL 60611 - Google Maps

mrsebiology's notebook https://maps.google.com/maps?f=d&source=s_d&saddr=Herbert,+IL&daddr=41.9398446,-87.9851456+to:541+North+Rush+Street,+Chicago,+IL&hl=en&geocode=... Hide Details

Created: Saturday, July 21 2012, 4:41 PM Modified: Saturday, July 21 2012, 4:41 PM Size: 143 KB [View note history](#)

Show for all steps: **Text only** | Maps | Street View Include large map [Print](#)

Roll over the directions to customize each step.

Google Directions to 541 N Rush St, Chicago, IL 60611
71.8 mi – about 1 hour 37 mins

[Save trees. Go green!](#)
Download Google Maps on your phone at google.com/gmm

Herbert, Spring, IL

1. Head north on Elevator Rd/
Herbert Rd toward E 2nd St go 0.2 mi
total 0.2 mi
2. Take the 1st right onto Herbert Rd go 0.5 mi
About 2 mins total 0.7 mi
3. Turn right onto Co Rd 4/
Genoa Rd go 5.2 mi
Continue to follow Genoa Rd total 5.9 mi
About 10 mins
4. Continue onto W Main St go 1.6 mi
About 3 mins total 7.5 mi
5. Continue onto IL-23 N/
IL-72 E go 11.6 mi
total 19.1 mi

72

JULY 18, 2012 · 1:26 PM

↓ Jump to Comments

Flipping The Classroom... A Goldmine of Research and Resources To Keep You On Your Feet

☆☆☆☆☆ Rate This



Greetings from Boston and BLC12 (Alan November's Building Learning Communities Conference). If you wish to follow the happenings at BLC12 check out the hashtag #BLC12 on Twitter. Welcome to another post rich in resources on the Flipped Classroom. If you have come here looking for links that will guide you to videos and multimedia to use in a Flipped Classroom you will find that in the second half of this post. Perhaps you have tried a little Flip



EVERNOTE
WEB CLIPPER

Sign out (mrsebiology)

Flipping The Classroom... A Goldmine of Research and Resources To Keep You On Y

Web pages

Click to add tags

Click to add comment

Save Article

21CenturyEdTech



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Productivity Tools-Diigo (diigo.com)

My Library

My Items (2693) Add+

- All
- Read Later
- Bookmarks
- Images
- Notes

My Tags (831) Edit

Recent Tags

| | |
|------------------|----|
| Education | 93 |
| biology | 11 |
| science | 11 |
| genetics | 8 |
| physicalscience | 7 |
| technology | 6 |
| resources | 6 |
| tools | 5 |
| flippedclassroom | 5 |
| evolution | 5 |
| carbon | 5 |

Top Tags

| | |
|------------|------|
| Education | 1963 |
| Untagged | 425 |
| web2.0 | 232 |
| science | 215 |
| technology | 140 |

More Actions... Share to Group... Add to List... Filter all View

19 Jul 12

- [Web Tools for Teachers by Type - LiveBinder](#)
[more from www.livebinders.com](#) - Not Cached - Edit - Delete - Share - Preview
Education web2.0 tools livebinders
in list: [Tech tools & goodies](#)
- [New Study Shows Irrelevance of Gains on State Tests. UPDATE! « Diane Ravitch's blog](#)
[more from dianeravitch.net](#) - Not Cached - Edit - Delete - Share - Preview
Education edreform
in list: [Ed Reform](#)
1 annotations...
- [Living Graph](#)
Neat graph-making site
[more from www.ngfl-cymru.org.uk](#) - Not Cached - Edit - Delete - Share - Preview
Education graph
in group: [Physical Science Resources](#)
in list: [Physical Science Resources](#)

18 Jul 12

- [PBL Resources - LiveBinder](#)
Contains checklists and rubrics
[more from www.livebinders.com](#) - Not Cached - Edit - Delete - Share - Preview
pbl Education resources livebinder projects
in list: [PBL](#)

17 Jul 12

Productivity Tools-Diigo

You're Probably Not Using

Thorin Klosowski

Add Sticky Note

Private

Post

Personal highlight by

...achine with all types of
...d tools. A lot of these—like
...Docs—are clearly useful
...ny. But hidden inside
...are some awesome, lesser-
...can make your life easier.

Over the last couple of years Google has experimented with a lot of products. Hidden beneath popular apps like Gmail, Google Search, and Chrome are a lot of cool features that most people don't mess around with. Here are some of our favorite unsung Google features, from Google Drive apps to Google+ to everything in between.

Use Google Drive Apps for Added Functionality and Features

For most of us, Google Drive is just a fancy rebranding of Google Docs. However, the recent integration of web based apps into Google Drive is starting to get interesting. These apps utilize your Google Drive folder directly either by storing new files there, or integrating with the files you already have. Here are a few of the Drive apps we find useful.

Send and Receive Faxes for Free with Hellofax


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GET OUR TOP STORIES FOLLOW LIFEHACKER

Arr! Scott A. Elder, William Phillip Aldridge and 464,977 other cap'n's be enjoyin' this

Diigo Web Highlighter (v1.7.0) Feedback

Highlight Bookmark Sticky Note Share

LATEST STORIES SATURDAY, JUL 2

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BUDGETING 3:00 PM
Manage Joint Finances Using a Whiteboard

CLEVER USES 2:00 PM
Hang Folding Chairs on Your Wall to Provide Temporary Storage

YOUTUBE 1:00 PM
YouTube Adds Automatic Face Blurring Option

FOOD HACKS 12:00 PM
Cook Fresh Corn on the Cob in Your Microwave

MIND HACKS 11:00 AM
Flip a Coin to Decide Which Action You Really Want to Take

LIFEHACKER TOP 10 8:00 AM
Top 10 DIY Miracles You Can

MORE STORIES...

So, how could you
use these tools in a
DI classroom?



Poster Makers-Glogster EDU (edu.glogster.com)

Glogster **EDU**

~~Creative~~
~~Traditional~~ learning
Express it with a Glog™

Sign Up now!

I'M A TEACHER

I'M A STUDENT

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Engage your students

Recapture the enthusiasm for teaching and learning, with our award-winning platform.



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Encourage Curiosity and creative problem solving for any project or lesson.



Excite learners

Excite, motivate and be more effective, and have fun doing it!



Show anywhere

Create a visible partnership, between school and home, safely and easily.

Glogster
BETA

Web2.0tools!

Glogster

You cant get this little
guy on a P.P!!!

In fact you are looking at a
web2.0tool right now! HA! we win,
your learning! Well since we already
won you might as well read on...

This is an example
of Glogging
so psht!! P

glogster definition:
- pure awesomeness that can never
be surpassed, and you get an
automatic A+ for using it!
"yo just kidding (kinda) Glogster
lets you post videos, pictures, text,
links and WAY more all on your own
virtual poster than you can upload
to more awesome places!

you can also use glogster to make
one giant project, like social
studies, insert pie charts on
poverty level in other countries,
along with video examples and text
to state your own views.

Animoto

FLICKR!!

Flickr is where you can get any kinds
of picture. Use it science to get some
cool before and after pictures for lab

- Glogster is pretty, but...
- WebDoc www.webdoc.com
- Infographics
- Easl.ly, Venngage, Piktochart

Presentation Tools-Animoto & Voicethread

- Animoto-watch example
- Voicethread:

The screenshot displays a Voicethread interface with a central diagram illustrating the formation of covalent and ionic bonds. The diagram is divided into two columns. The left column, labeled 'atoms' at the top, shows two separate atoms, each with a green nucleus (+) and a red electron (-). An arrow labeled 'SHARING OF ELECTRONS' points to the resulting 'molecule', where the two atoms are joined and their outer electron shells overlap, sharing two electrons. This process is labeled 'covalent bond' in a yellow box. The right column, also labeled 'atoms' at the top, shows two separate atoms. A red arrow labeled 'TRANSFER OF ELECTRON' points to the resulting 'positive ion' and 'negative ion', where one atom has lost an electron and the other has gained one. This process is labeled 'ionic bond' in a yellow box. The diagram is set within a Voicethread frame with a top bar containing a gear icon, 'menu (4/12)', a star icon, and a close icon. The left and right sides of the frame feature vertical columns of thumbnail images with speech bubbles. The bottom bar includes a back arrow, a 'comment' button, a play button, and a forward arrow.

Figure 2.6 Essential Cell Biology, 2/e. (© 2004 Garland Science)

Presentation Tools-Prezi

- See Example Prezi



Presentation Tools-Present.me



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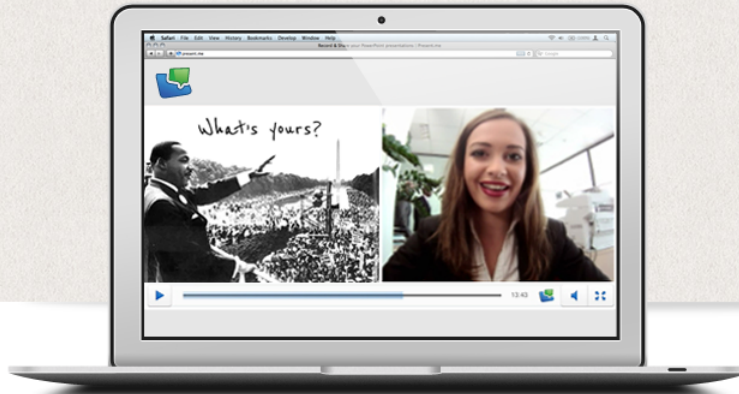
[Plans & Pricing](#)




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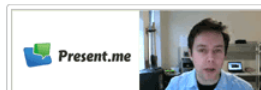
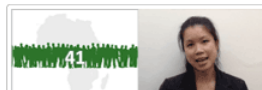


-  1. You show
-  2. You tell
-  3. You share

[See Plans & Pricing](#)

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Support



Presentation Tools-Qwiki (qwiki.com)

YOUR QWIKI PREVIEW

TERIE ENGELBRECHT'S QWIKI CHANNEL **RAGNAR CHICAGO OVERVIEW** ▾

RAGNAR CHICAGO
MADISON TO CHICAGO
JUNE 7-8, 2013
PRESENTED BY *NordicTrack*

2013 REGISTRATION OPENS SOON!

GET READY

- ▶ Registration Info
- ▶ Manage Your Team
- ▶ Race Bible (none available)

GET SET

- ▶ To Do's
- ▶ Travel & Lodging
- ▶ Race Day Checklist
- ▶ Runner Distances
- ▶ Race Day Checklist

RAGNAR RELAY CHICAGO

Registration for the 2013 Ragnar Relay Cape Cod will open August 1st!

PICTURE THIS: Running a relay race, that starts in Madison, Wisconsin hopping the state line and ending in Chicago. This running event will push you and 11 pals, day and night, through 200 miles of stunning scenery in the upper Midwest. Starting in Madison, your team will head southeast toward the southern tip of Lake Michigan. The race (and your stamina) will wrap up in the "Windy City" - Chicago, Illinois. Mark your running calendars; this race is one you won't want to miss.

REGISTRATION CLOSED

UPDATES

- ▶ Results are posted!!
- ▶ Awards Ceremony: June 9
Line location: ...
band: R...
be play...
▶ UPDATES
d a lge... to Leg 13, Leg...
20 May... ragnarrelay.com...
▶ 2012 Registration is...

<http://www.ragnarrelay.com/race/chicago>

CHECK THIS RACE OUT...

This Qwiki is not yet published

✓ PUBLISH

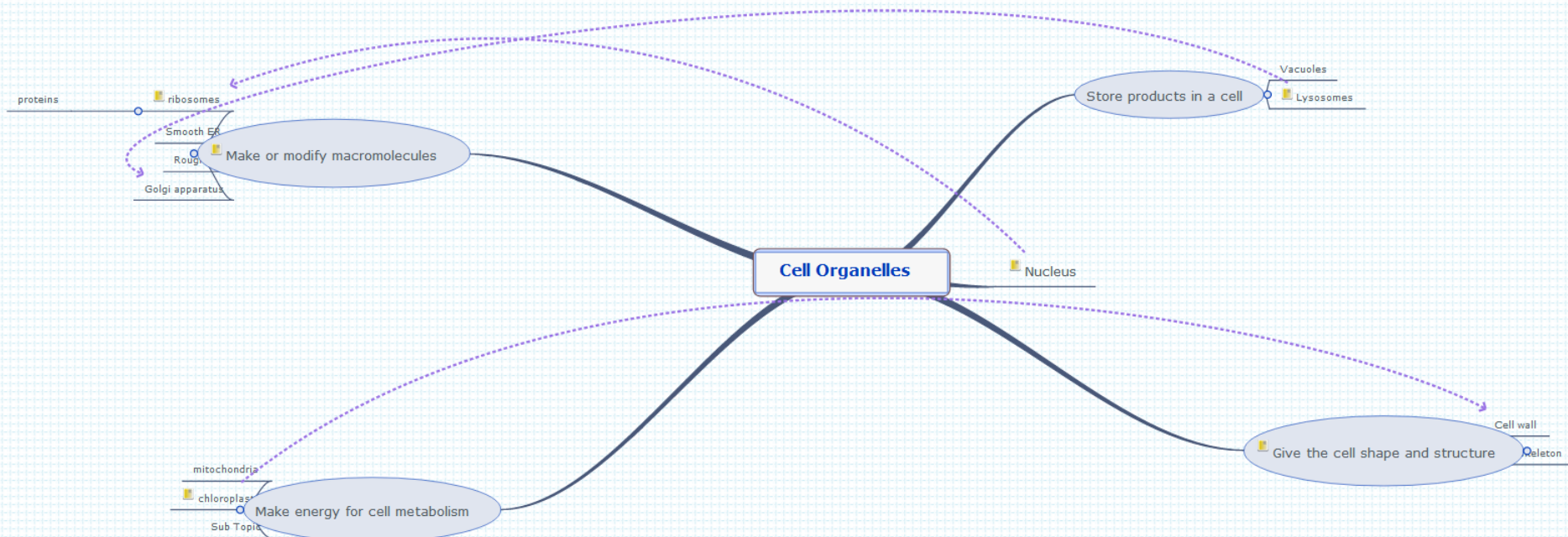
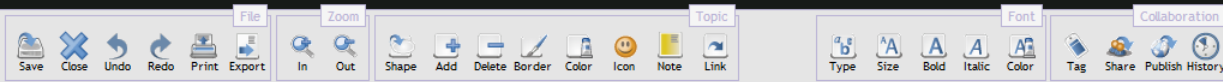
So, how could you
use these tools in a
DI classroom?



Mindmapping Tools-Wisemapping

Test last modification by mrsebiology

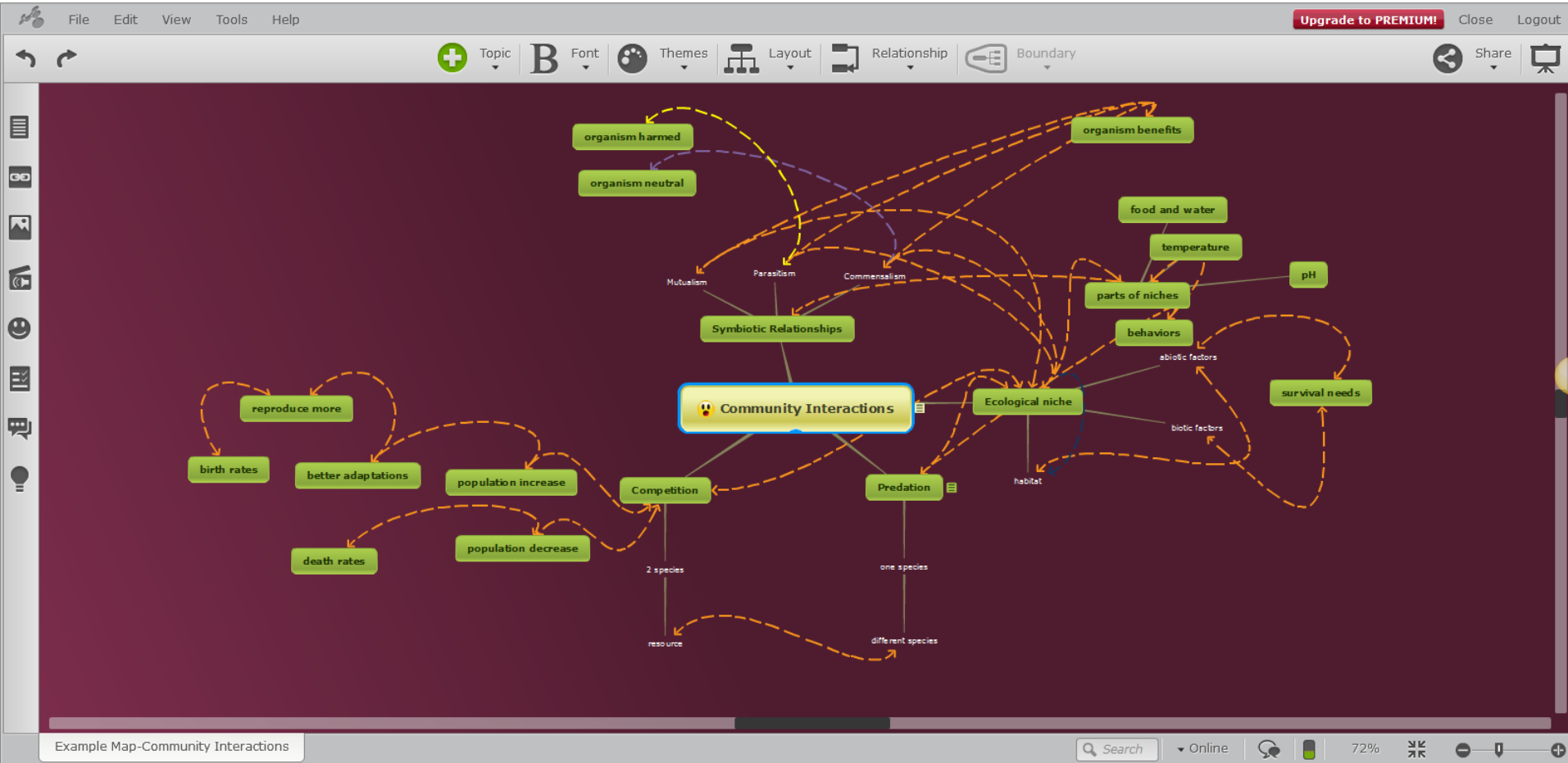
Welcome , Terie | [My Wisemaps](#) | [Settings](#) | [Logout](#)



• www.wisemapping.com



Mindmapping Tools-Mindomo



• www.mindomo.com

Mindmapping Tools-Creately

Need Private Diagrams and shareable Project Folders? Upgrade Now!

Open New Templat Save Paste Copy Cut Undo Redo Text Line Image Style Fill Line Filter

Share Import Export Feedback

Search

New - Getting Started

Zoom 100

Basic Shapes
Arrows
Block Shapes
Stars And Balloons
People Silhouettes
Flow charts

Data Process
Decision Document
Start / End Vertical Swimlanes
Horizontal Swimlanes Direct Data
Stored Data Manual Input
Get More Objects

Properties
Notes
Comments
Share
Publish
Help

Hello! Welcome to Creately

Drag drop some objects to get started or click "Get More" to find more objects.

Select an object(s) to see the Contextual toolbar.
(and yes thats an imported image!)

Connect Objects with the toolbar

just start typing to add text

Next, click **Open** above to see some sample projects to get you started!

Open New Save

Loving it yet? There's more good stuff!

www.creately.com

• www.creately.com

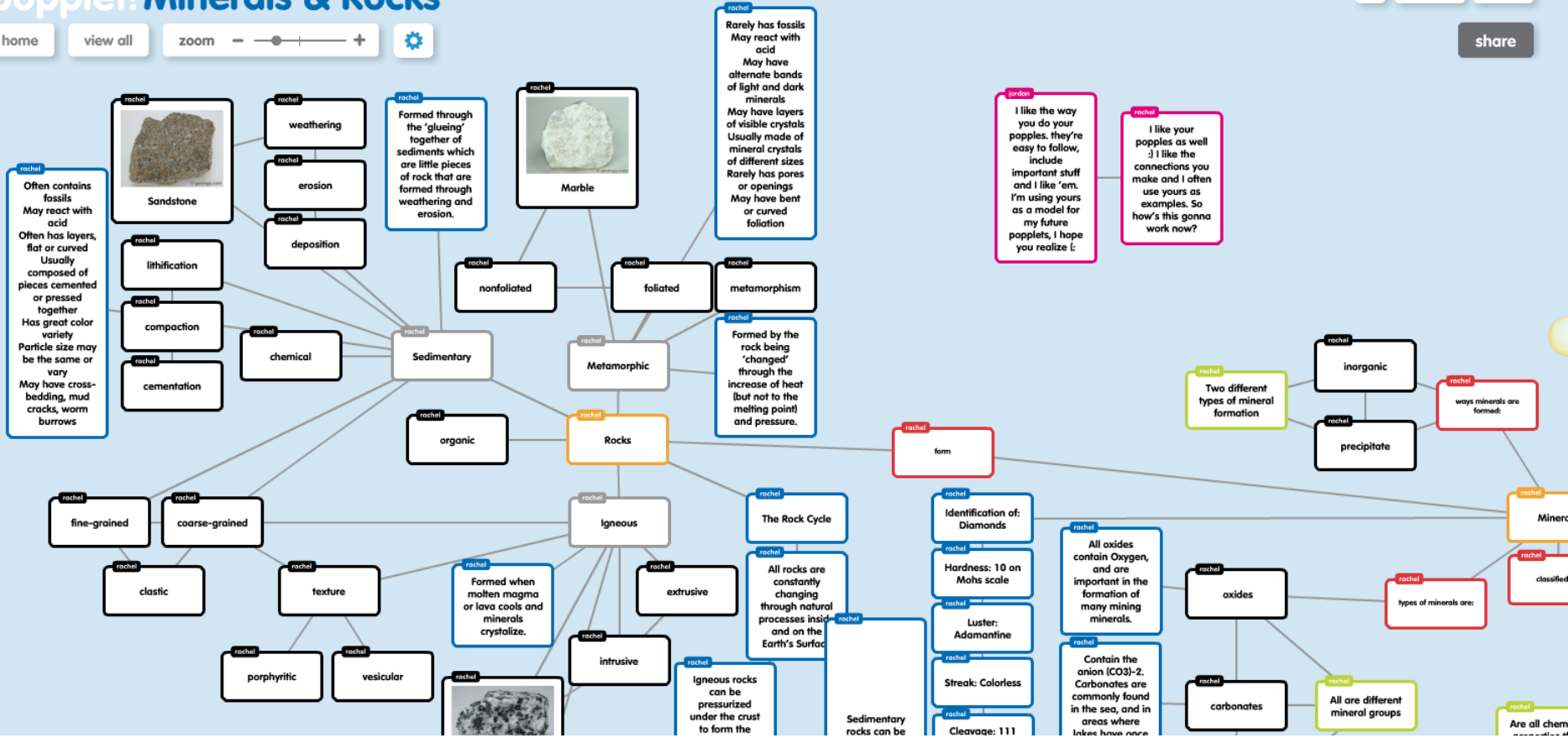
Mindmapping Tools-Popplet

popplet: Minerals & Rocks

? feedback log out

home view all zoom settings

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• Popplet.com

Photo/drawing/cartoon tools-Pizap




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Timeline Covers beta



WebCam Effects

Background Color: 



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SPARTAN RACE YOU'LL KNOW AT THE FINISH LINE

OCTOBER 27TH 2012 MIDWEST

SPARTAN SUPER

[Photo Editor Software](#)
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- Pizap.com

Photo/drawing/cartoon tools-Sumo



Images

People

Create

Sign in

Sumo.Fm

CREATE WITH FRIENDS



by [Fin-artist](#)

♥ 457 ● 37209 ↻ 47



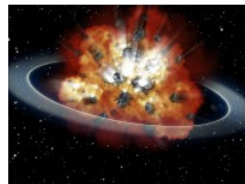
by [Raffaelli](#)

♥ 174 ● 45006 ↻ 73



by [Rocca](#)

♥ 49 ● 1466 ↻ 3



by [Aaro](#)

♥ 84 ● 2122 ↻ 21



by [Rocca](#)

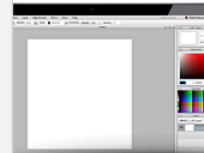
♥ 78 ● 2172 ↻ 20



by [Bogey](#)

♥ 85 ● 1427 ↻ 1

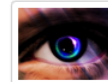
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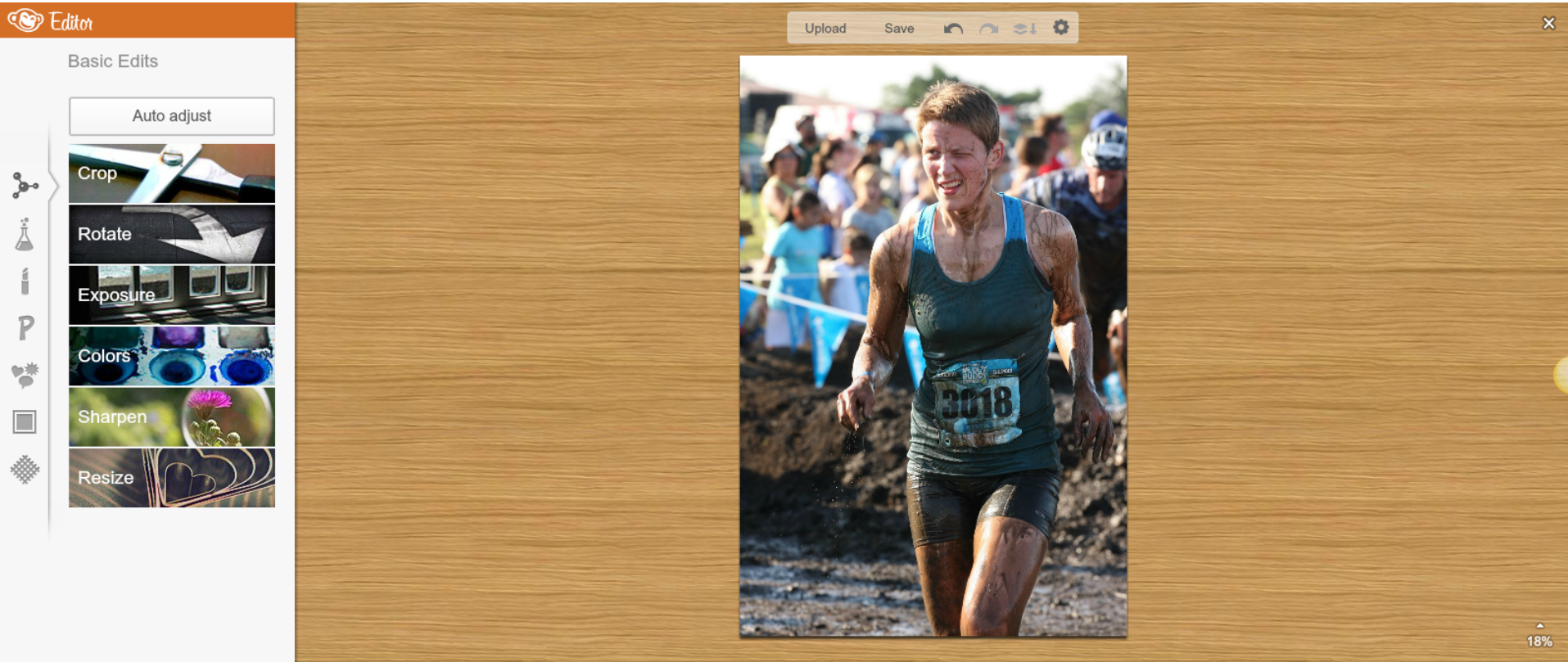
06/2012
[thegreatestescape](#)
♥ 1112
● 78523



05/2012

- [sumo.fm](#)

Photo/drawing/cartoon tools-Picmonkey



- picmonkey.com
-



Photo/drawing/cartoon tools-Pixton

PIXTON

Fun
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Business

Log In



The World's Best Way to
MAKE COMICS

Unleash your creativity!

Fun, quick and easy to use.
Tell your story your way.



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FUN**

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- Share and remix comics with friends
- Contests, daily Top 10, chat & more

**PIXTON FOR
SCHOOLS**

More Info

- Private & secure space
- Grading & assessment tools
- Record voice-over to enhance learning

**PIXTON FOR
BUSINESS**

More Info

- Add character to your message
- Create comics privately & securely
- Free yourself from clip art!

Example Comics from our Community



• pixton.com

Photo/drawing/cartoon tools-ToonDoo

The screenshot shows the ToonDoo website interface. At the top, there is a blue header with the ToonDoo logo on the left, a search bar in the center, and a 'Log in' button on the right. Below the header is a green navigation bar with tabs for 'Toons', 'Books', 'Doors', 'Tools', 'Completoons', 'Shop', and 'Etc.'. The main content area features a large banner for 'CREATE YOUR OWN COMIC STRIPS WITH JUST A FEW CLICKS, DRAG & DROPS' showing a cartoon strip being created. To the right of the banner is a sidebar with several tool options: 'ToonDoo Maker' (Create your own comics!), 'Book Maker' (Make a ToonBook!), 'TraitR' (Make a character!), 'ImagineR' (Click here to upload!), and 'DoodleR' (Add drawing touches!). Below the banner is a 'Buzz @ ToonDoo!' section with a list of user posts. Each post includes a user profile picture, the user's name, a small thumbnail of their work, and the title of their creation. The posts are: Timod's 'Super Nurse COVER', deeps2012's 'A LESSON ON GOVERNMENT', Allie0314's 'allies toondo', miyaka2299's 'Allie - 2nd go', and penih's 'in the office'. To the right of the 'Buzz' section is a 'ToonDoo Shop' banner that says 'BUY printable images of your favorite Toons at Toondoo!' and 'is now open!'. Below the shop banner is a 'Also from ToonDoo!' section featuring a '15 day FREE trial!' offer for 'ToonDoo SPACES'.

TOONDoo Log in

search World's fastest way to create cartoons! Sign Up for FREE!

Toons Books Doors Tools Completoons Shop Etc.,

CREATE YOUR OWN COMIC STRIPS WITH JUST A FEW CLICKS, DRAG & DROPS

ToonDoo Maker
Create your own comics!

Book Maker
Make a ToonBook!

TraitR
Make a character!

ImagineR
Click here to upload!

DoodleR
Add drawing touches!

Buzz @ ToonDoo!

| | | | |
|--|--------------------------------|------------------------|--|
| | Timod's first Toon | Super Nurse COVER | |
| | deeps2012's new book | A LESSON ON GOVERNMENT | |
| | Allie0314's new book | allies toondo | |
| | miyaka2299 cheered | Allie - 2nd go | |
| | penih's | in the office | |

ToonDoo Shop BUY printable images of your favorite Toons at Toondoo! is now open!

Also from ToonDoo!

15 day FREE trial! ToonDoo SPACES

- toondoo.com

Photo/drawing/cartoon tools-KerPoof

The screenshot displays the KerPoof website interface. At the top left is the logo "KerPoof" with the tagline "Learning Through Creativity". A "Login" button is in the top right. Below the logo are navigation links: "About Us", "How To Play", "Awards", and "Membership". A large circular graphic features the word "UNDERWATER" and a dolphin, with a "PLAY" button. To its right is a featured activity titled "UNDERWATER SPELL A PICTURE" with a description: "How many underwater creatures can you spell? Challenge your students use an encyclopedia article about the ocean to discover how." Below this is a "TODAY IN KERPOOF" section with four dots. A row of six activity icons follows: "SPELL A PICTURE" (K-3), "MAKE A MOVIE" (K-8), "MAKE A CARD" (K-8), "MAKE A DRAWING" (K-8), "MAKE A PICTURE" (K-3), and "TELL A STORY" (3-8). Below these are sections for "Currently Popular" and "SHARED BY OTHERS" with a search bar and a row of ten image thumbnails. At the bottom, there are links for "About Kerpoof", "Contact Us", "For Parents", "For Teachers", "Terms of Use", and "Privacy Policy", along with the copyright notice "Copyright Disney - All rights reserved."

- kerpoof.com

So, how could you
use these tools in a
DI classroom?



ePortfolios: Pulling it all together



Biology Portfolio

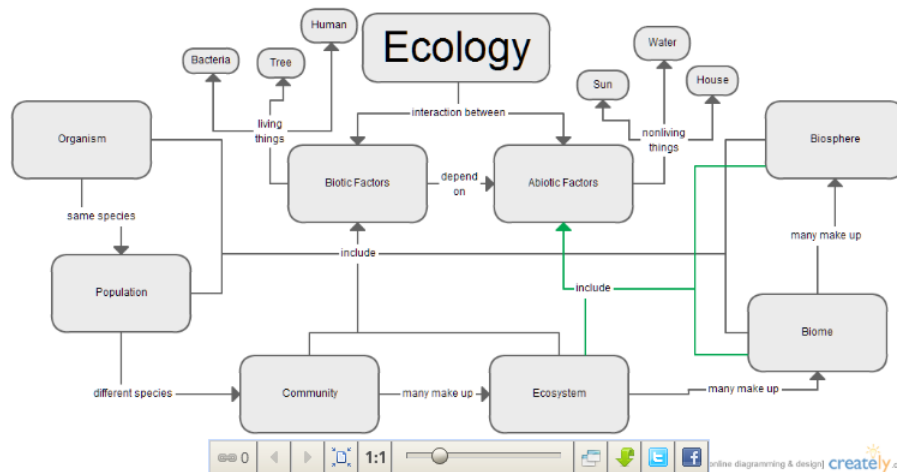
Search this site

- Home
- Web 2.0 Tools
- Science Inquiry
- ▼ Ecology
 - Objective #1: Overview
 - Objective #2: Population
 - Objective #3: Community
 - Objective #4: Ecosystem
 - Objective #5: Biodiversity
- Reflection
- I Can Statements

Objective #1: Overview

- 1a. I can describe what is studied in ecology.
- 1b. I can write the difference and give examples of abiotic and biotic factors in the biosphere.
- 1c. I can illustrate how the following words are connected: organism, population, community, ecosystem, biome, biosphere.

Ecology Overview



What if your students are new to tech?

The image is a screenshot of a Wikispaces page. At the top right, it says "guest · Join · Help · Sign In" and "wikispaces". The main title is "Web 2.0: Cool Tools for Schools" in large green letters. Below the title is a green bar with the text "by Online Learning Resources - MERLOT Classics 2011". Underneath that is a navigation bar with "home", "Protected", "page", "history", and "notify me". On the left side, there is a vertical menu of tool categories: Home, Presentation Tools, Collaborative Tools, Research Tools, Video Tools, Slideshow Tools, Audio Tools, Image Tools, Drawing Tools, Writing Tools, Music Tools, Organising Tools, Converting Tools, Mapping Tools, Quiz and Poll Tools, Graphing Tools, Creativity Tools, Widgets, File Storage & Web Pages. The main content area features a photograph of a classroom where students are sitting around a table with laptops. Overlaid on the photo in green, slanted text are the words: "and learners who are", "connected", "motivated", "global citizens", "literate", "lifelong", "confident", "collaborative", "independent", "engaged", and "communicators". At the bottom of the screenshot, a Windows taskbar is visible with several open applications like "TweetDeck", "cooltoolsforschoo...", "Technology Ag Th...", "Track and Field - ...", "TechSmith | Snag...", "Digital Science No...", and "Microsoft PowerP...". The system clock shows "11:43 PM".

cooltoolsforschools.wikispaces.com; thanks to @chrisludwig for the idea

Other Web 2.0 Resources

- Web Tools 4 You 2 Use
 - <http://webtools4u2use.wikispaces.com/>
- Go 2 Web 2.0
 - <http://www.go2web20.net/>
- K-12 Tech Tools
 - <http://edutechdatabase.wikispaces.com/>
- And there's many, many more.....



Getting students comfortable with tech

- Allow them some "play time" with each new tool
 - If you want them to learn the tool--have them use the tool.
 - Make or find tutorials for tools
(YouTube and Twitter can be your best friends for this.)
 - **YOU DON'T HAVE TO KNOW HOW TO OPERATE EVERY TOOL.**
-



Don't make the tool your learning goal.

The goal of the lesson plan is to teach the targeted content and skills, NOT the tool

Set up the right environment for learning, and students will learn to use the tool—because they need to learn it to master the content and skills.

Plan for learning, including the right tools at the right time.
(Sometimes the right tool is not a Web 2.0 Tool)



Determine the learning, then the tools.

- **WHAT do you want them to learn?**

- The KUDs (Refined through pre-assessing)

- Rigor--Creation, Evaluation, Synthesis

- Tech skills with thinking skills & content

- **WHY are they learning it?** Relevancy & connections

- **HOW do you want them to learn it?**

- What thinking skills do you want them to practice?

- Pick the tool(s) that do the job

- Pick a variety of tools according to student interest,

- readiness, and learning profile

- **HOW will you assess the learning?**

- Rubrics, presentations, traditional methods



21st Century Educators

Don't Say, "Hand It In." They say, "Publish It!"

--Lisa Neilsen, "The Innovative Educator"

Create, Synthesize, Evaluate, and....



Image courtesy of [mediainmolecule](https://www.mediainmolecule.com/)



Designing Technologically Differentiated Lessons

- Determine content & skills to be learned
- Write/plan assessments (Web 2.0 tool for final display of understanding?)
- Pre-assess on content & skills
- Plan the differentiated learning activities that are needed
 - Determine which Web 2.0 Tools will do the learning you require
- Plan for students to do the work of learning



Some Words of Advice...

- Backwards design of lessons
- Student creation of evidence of understanding
- It will not always go as planned
- Create a culture of "everyone gets what they need to succeed."
- You don't need to know how to use every tool.



Example 1: Process

I can categorize different forms of energy as either potential or kinetic and explain my reasoning.

Physical Science Activity



Example 2: Product Semester Assessments

- Creating different products using a specific Web 2.0 Tool
- Creating different products using the same web tool: ePortfolios
 - Example #1-Google site (variety of tools displayed)
 - Example #2-Voicethread

It's the student's job to provide evidence of understanding
Web 2.0 Tools allow students to choose how they display
that evidence



Example #3: Choice

Demonstrating Advanced Mastery

- Students must provide evidence that they know, own, and can use/apply knowledge on their portfolios
 - Directions
- Get choice of how they do that and what tool to use

DO NOT allow students “free reign” on choice until they have been taught how to make the RIGHT choice for THEIR LEARNING



Example #4: Content/Readiness

PBL Unit: Paging Dr. You

- . Problem: Find the cause of a little girl's death and explain the cellular complications that caused her death to the parents in a 5-minute presentation
- . Directions
- . Some students went very deep into the cellular explanations, others not so deep
 - . But all students had to reach a pre-determined level of understanding (using activities that all did)
- . Allows for students who are ready to delve deeper to do so



What did you learn today?



A final thought....

• **Teaching well without technology is possible, but....**

- "There can no longer be an “opt out” clause when dealing with technology in our schools...We need to prepare our kids to live in this world **now** and in the future. Change may feel hard, but it is part of learning. We expect it from our kids, we need to expect it from ourselves."
 - --George Couros



List of Related Citations

“Differentiating Instruction using Web Tools Kids Know & Love”

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Terie R. Engelbrecht

Ferriter, W. G. & Garry, A. (2010). *Teaching the iGeneration: 5 Easy Ways to Introduce Essential Skills Using Web 2.0 Tools*. Bloomington: Solution Tree.

Frey, N., Fisher, D, Gonzalez, A. (2010). *Literacy 2.0: Reading & Writing in 21st Century Classrooms*. Bloomington: Solution Tree.

Solomon, G. & Schrum, L. (2007). *Web 2.0: New Tools, New Schools*. Washington: International Society for Technology in Education.

