



IB AFRICA, EUROPE & MIDDLE EAST
REGIONAL CONFERENCE 2013

THE HAGUE 24TH - 27TH OCTOBER

iPads, Minecraft and the PYP Classroom

Mary Kay Polly

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ICT Coach, iPad Support teacher**

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United Arab Emirates





Abu Dhabi, UAE





National Day 2012



Raha International School

Abu Dhabi , UAE



Overview

Innovate, Educate, Create

- iPad pilot at Raha International School
- Grade 5 Unit of Inquiry using *Minecraft*
- Technology, Games-Based Learning, 21st Century Skills
- Questions / Discussion

iPads at Raha International School

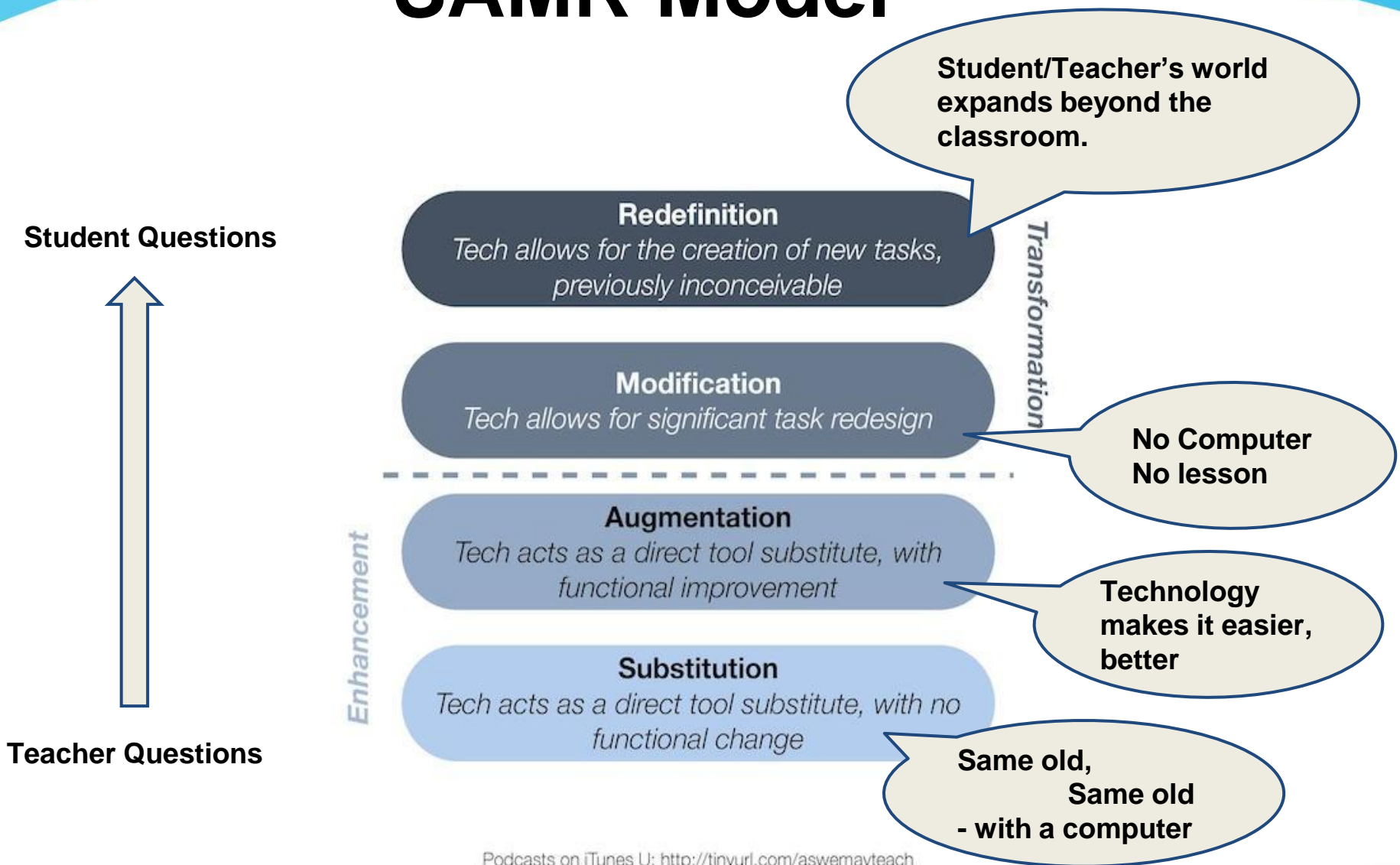
2012-2013 iPad Pilot

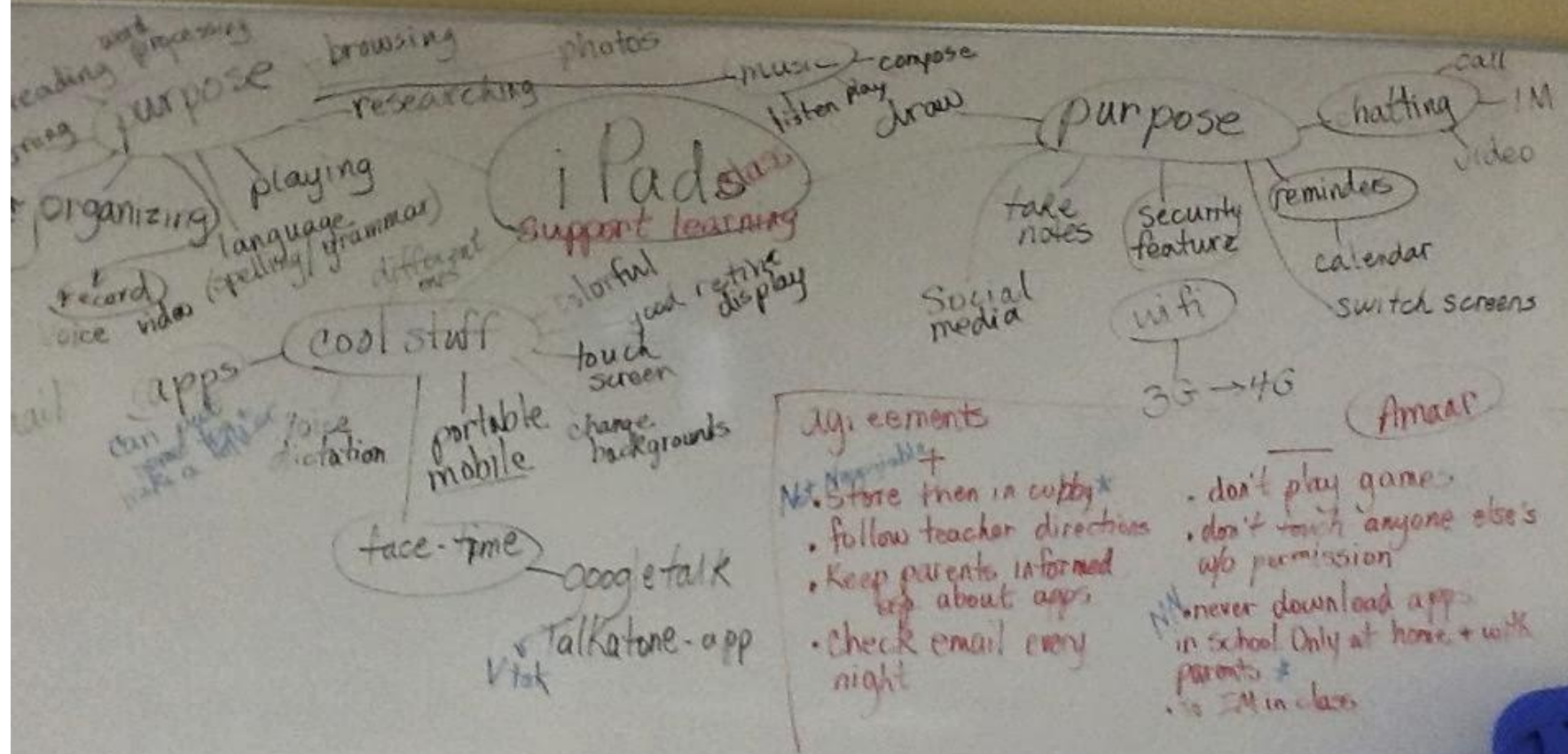
Grades 4 & 5
(1 class each)

- BYOD
- Google account
- 500AED/100Euro for iTunes Apps
- Bring to school charged everyday



SAMR Model





Gr.5PT

Essential Agreements



1. Take care of
each other (treat
others the way
you want to be
treated).



2. Think
before doing
(take care of
ourselves).

Apology of
action: "you
broke it....
you fix it

3. Take care
of our
classroom.

iPad Agreements 5PT

September, 2012

- Store iPad in filing cabinet, when gone and no one in class.
- Follow the teacher's directions.
- Keep your parents informed, especially about apps.
- Check your email every night.
- Don't play games in school.
- Don't touch anyone else's without permission.

- Never download apps in school. Only at home, with your parents.
- No messaging in school.

Self at balance...

Nicole Tan

Leib

Alyssa Bong

Sarah Al-ghattas

Noor Al Shami

Amar Lila

Dan

Park

Mir Abbas Ali

Sarah al Rahman

Calbertson

Sam Dabbous

Michelle

Jenny Wilson

Lachlan Hughes

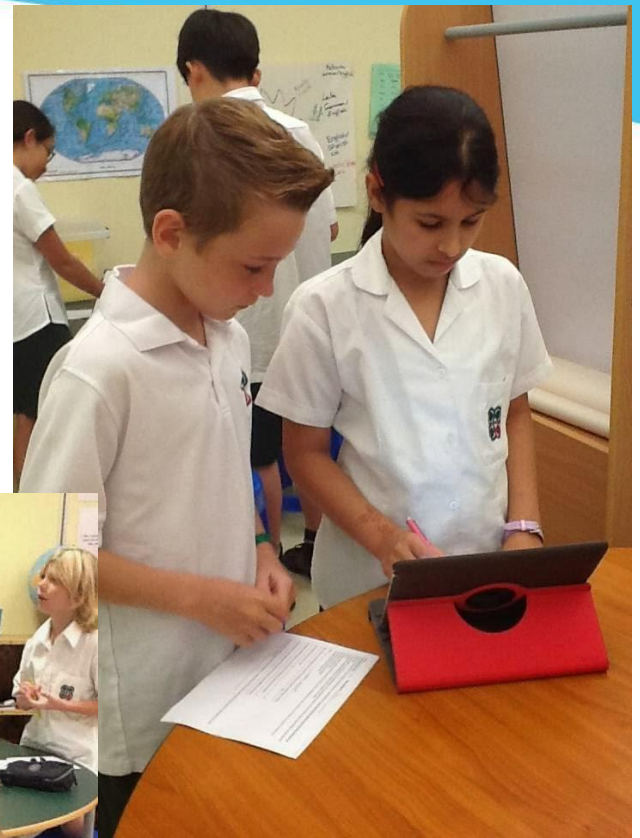
Katherine Hoffman

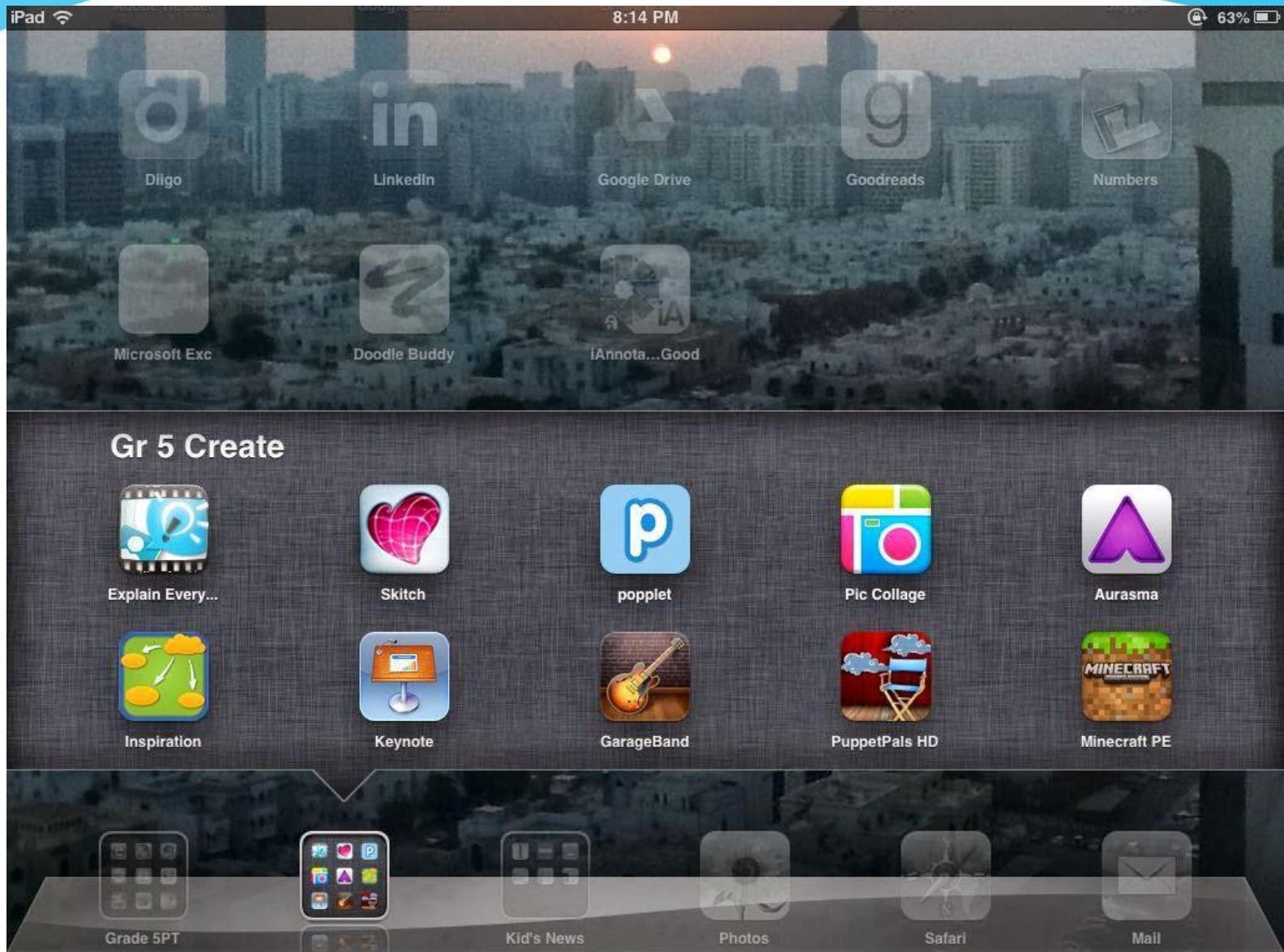
Eve Mack

Jessie Henderson











The iPad as an Educational Tool

CREATIVITY

COLLABORATION

REFLECTION

- 0 I learned how to take a snap shot
- 0 I learnt the 5 elements which are knowledge, concepts, action, skills, attitude. Knowledge is what you learnt, concepts is causation, action is when you take action to change something, skills is what you know how to do, attitude is what you show.
- 0 I understood what was the difference between concepts and attitude : a attitude is something you do and a concept is an idea.
- 0 I learnt how to photoshoot the screen
- 0 I learnt what beneficial means.
- 0 There are 6 units in each grade. We thought about knowledge, concepts,skills, action,attitudes and learner profiles. We thought about which central ideas were connected to the 6 units. We thought about which skills we need, what knowledge really meant, what pyp attitudes we can demonstrate, and we thought about what we do to make action. The concepts that we use, we thought about as well.
- 0 There were six units.we thought about knowledge concepts skills action attitudes and learner profiles.what central ideas where connected to each unit. And which skills we need what knowledge we need we need to demonstrate the pyp attitudes and what we do to improve our actions and the concepts that we use.
- 0 I learnt that there are 5 essential elements: skills, knowledge, attitude, action and concepts. Skills is what you have or what you can do. Knowledge is what you know, attitude is what you demonstrate, action is what you do to change something, and concepts are like causation and change.
- 0 I learned that there are many different things that make up a unit of inquiry. Like under concepts there's Form, function, change, reflection, connection, perspective and causation. And under skills there's communication, self management, social, research and thinking skills.
- 0 I learned that the 5 essential agreements are different things that I said They are Knowledge Concepts Actions Skills Attitude It was hard a little bit because you didn't know which went into which because they didn't fit right into any of them
- 0 We learned about the five elements of UOI which are knowledge,concepts,skills,attitudes and action. Then when we sorted the topics,we knew which went where and which was not meant to be there. For example for knowledge all the words were in big letters and bordered in black cardboard but two words weren't in big letters but they were supposed to be in knowledge.But it wasn't only about the looks we knew that they were meant to be there.
- 0 I learnt the about the five elements which are knowledge , concepts, action, skills and attitude. I also learnt that the five elements go in order and we do it when we study a topic of UOI.
- 0 Communication we communicated to sort things out
- 0 I learned how to put things in a group
- 0 I learned how to put things in a group and where to put them
- 0 I learned how to be organized.

End Activity

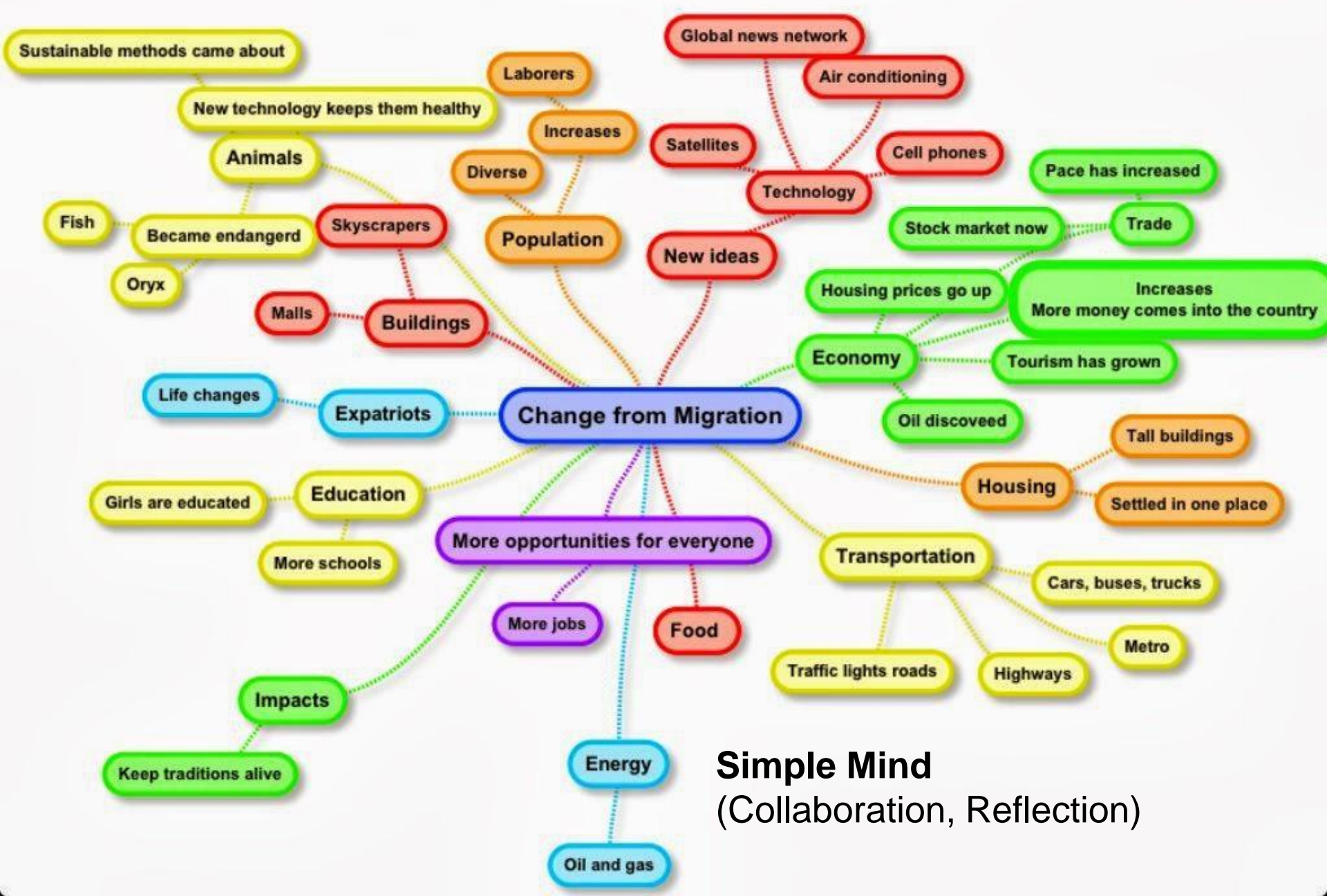
Socratic (Reflection)





Edmodo

(Collaboration and Reflection)



Simple Mind
(Collaboration, Reflection)

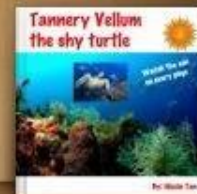
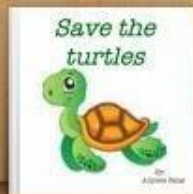
Store

Collections

5pt Summative Tasks



Edit



Book Creator
(Creativity, Collaboration, Reflection)

Book Creator



MKAY571

Close



Period	Wednesday
<u>8:00 – 8:10</u>	Homeroom/attendance
1 <u>8:10 – 8:50</u>	Mini Exhibition with gr 4
2 <u>8:50 – 9:25</u>	Mini Exhibition with gr 4
3 <u>9:25- 10:10</u>	Mini Exhibition with gr 4
First Break <u>10:10- 10:30</u>	RECESS
4 <u>10:30 – 11:15</u>	Music
5 <u>11:15 – 11:55</u>	Mini Exhibition in Ms Tina's
<u>11:55– 12:10</u>	Lunch
Second Break <u>12:10 – 12:40</u>	Lunch Recess
6 <u>12:40 – 1:25</u>	Islamic A
	Reflection
7 <u>1:25 – 2:05</u>	Art
8 <u>2:05 – 2:50</u>	Arabic

Evernote

(Reflection, Creativity,
Reflection)

Wednesday,
May 15, 2013

Good Morning!

To get ready for the Mini Exhibition, please set up your iPad at your station and get your report from the pile behind my desk. Your iPad should be open to your BLOG. your report should be sitting on the table in front of your display board. Think about how you will begin.

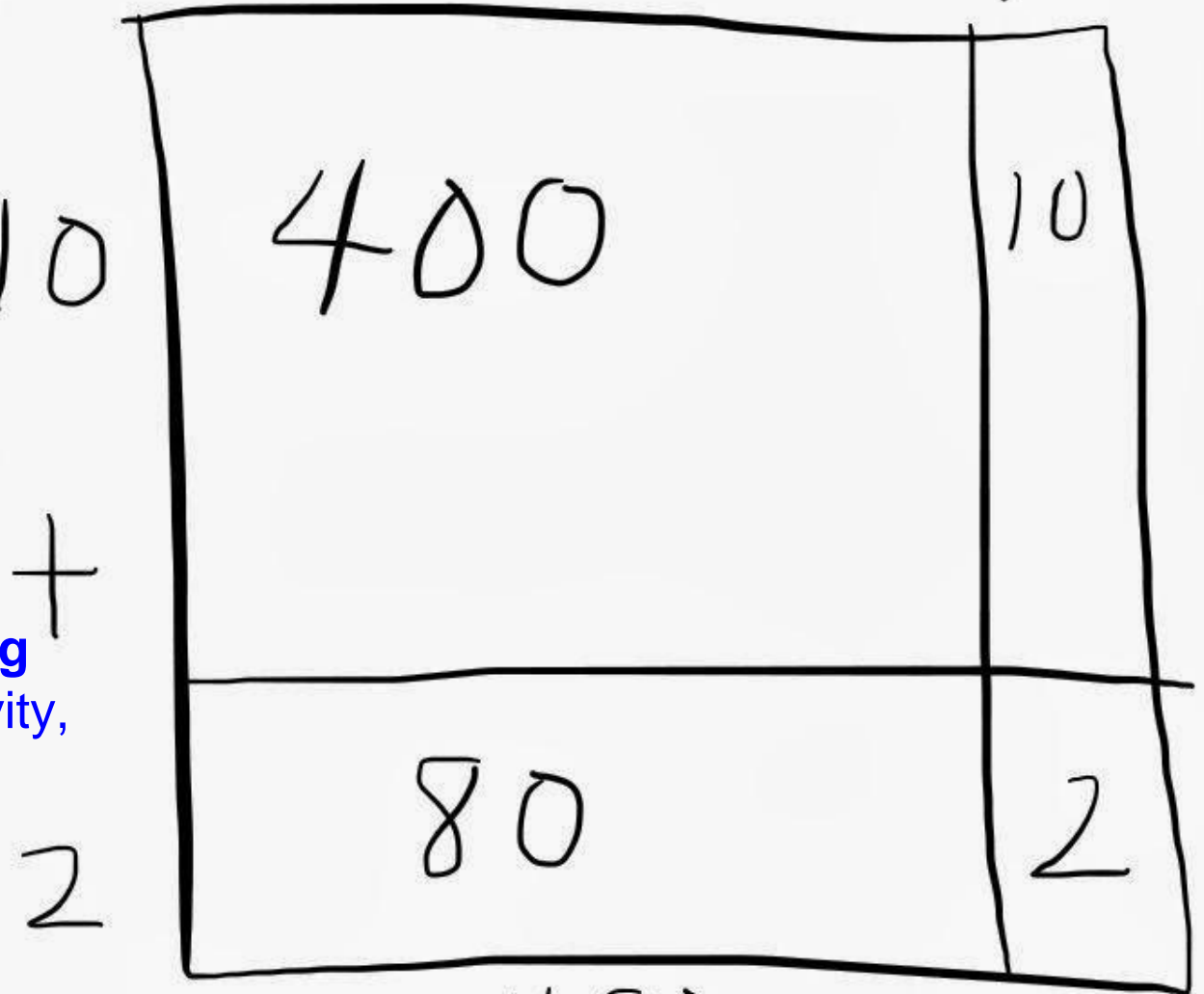
Then come and sit on the floor in front of the white board so I can speak with you all.

Smile and take a deep breath! You will be great!

Love,
Mrs Polly

$$41 \leftarrow 40 + 1 =$$

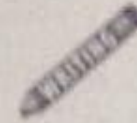
$$\begin{array}{r} \times 12 \leftarrow \\ \hline 492 \end{array}$$



Explain Everything
(Reflection, Creativity,
Collaboration)

$$492 - 480 + 12$$

Assessment: Using Fractions and Percents



Solve the following problems. Explain how you determined your answer.

1. Sonya and Adam have loaves of bread that are the same size. Sonya cut hers into 8 equal slices and ate 3 of them. Adam cut his into 10 equal slices and ate 4.

a. Whose slices were bigger? How do you know?

Sonyas slices are bigger because she cut them into less slices, which gives each slice more space.

b. Who ate more bread? How do you know?

No one ate more, they both ate the same amount

Explain Everything
(Reflection, Creativity, Collaboration)

Ways to describe Triangles

All the angles equal 180°

Explain Everything

(Reflection, Creativity,
Collaboration)

Angle Sizes

Right angle = 90°
Only one angle

Right triangle

Acute $< 90^\circ$ All angles

Acute triangle

Obtuse $> 90^\circ$
Only one angle

Obtuse triangle

Side lengths

All sides are different
lengths

Scalene triangles

Two sides are equal
length

Isosceles triangle

All sides are the same
length

Equilateral triangle

Pattern Blocks



Explain Everything
(Reflection, Creativity,
Collaboration)

By:
Sarah and Nicole

★ Take photos of
and name these
shapes.

trapezoid



rhombus (blue + white)



hexagon



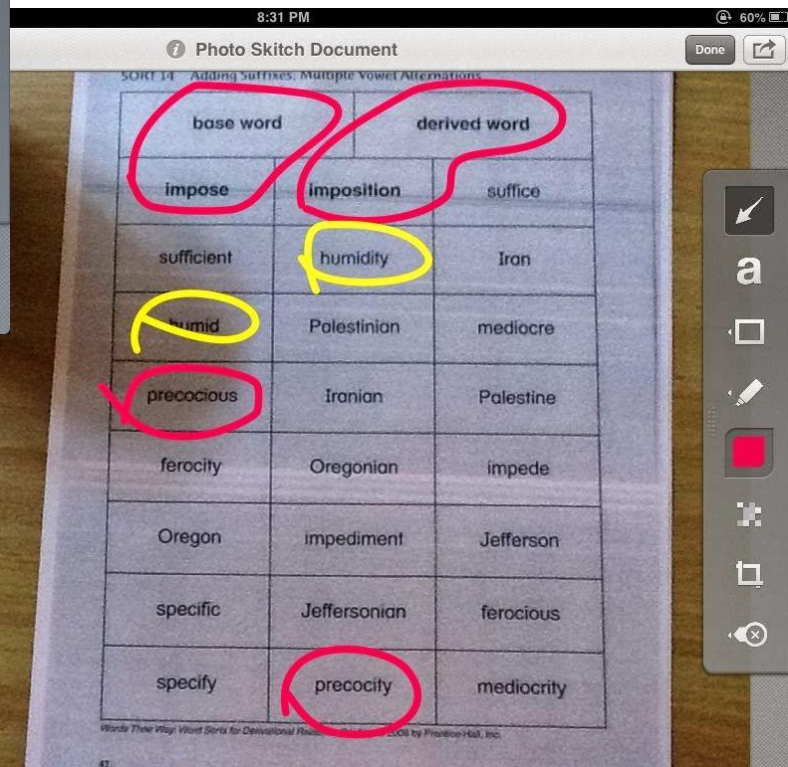
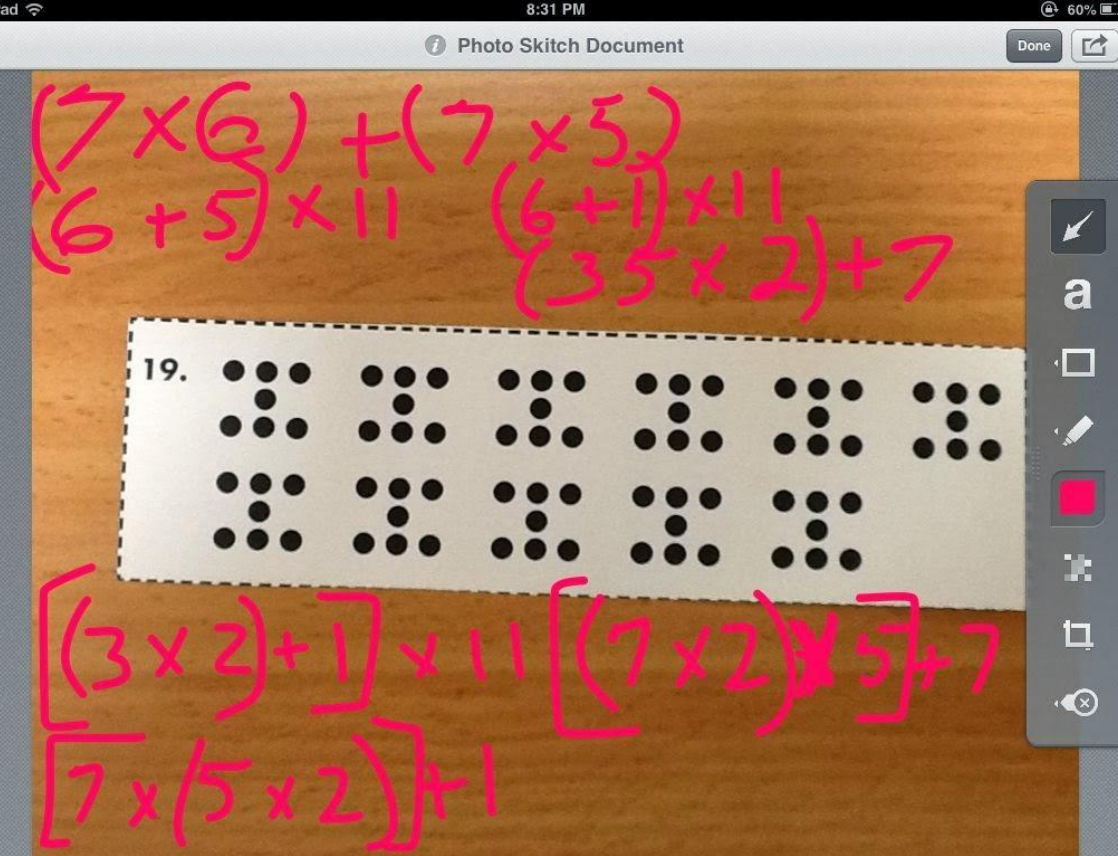
triangle



square



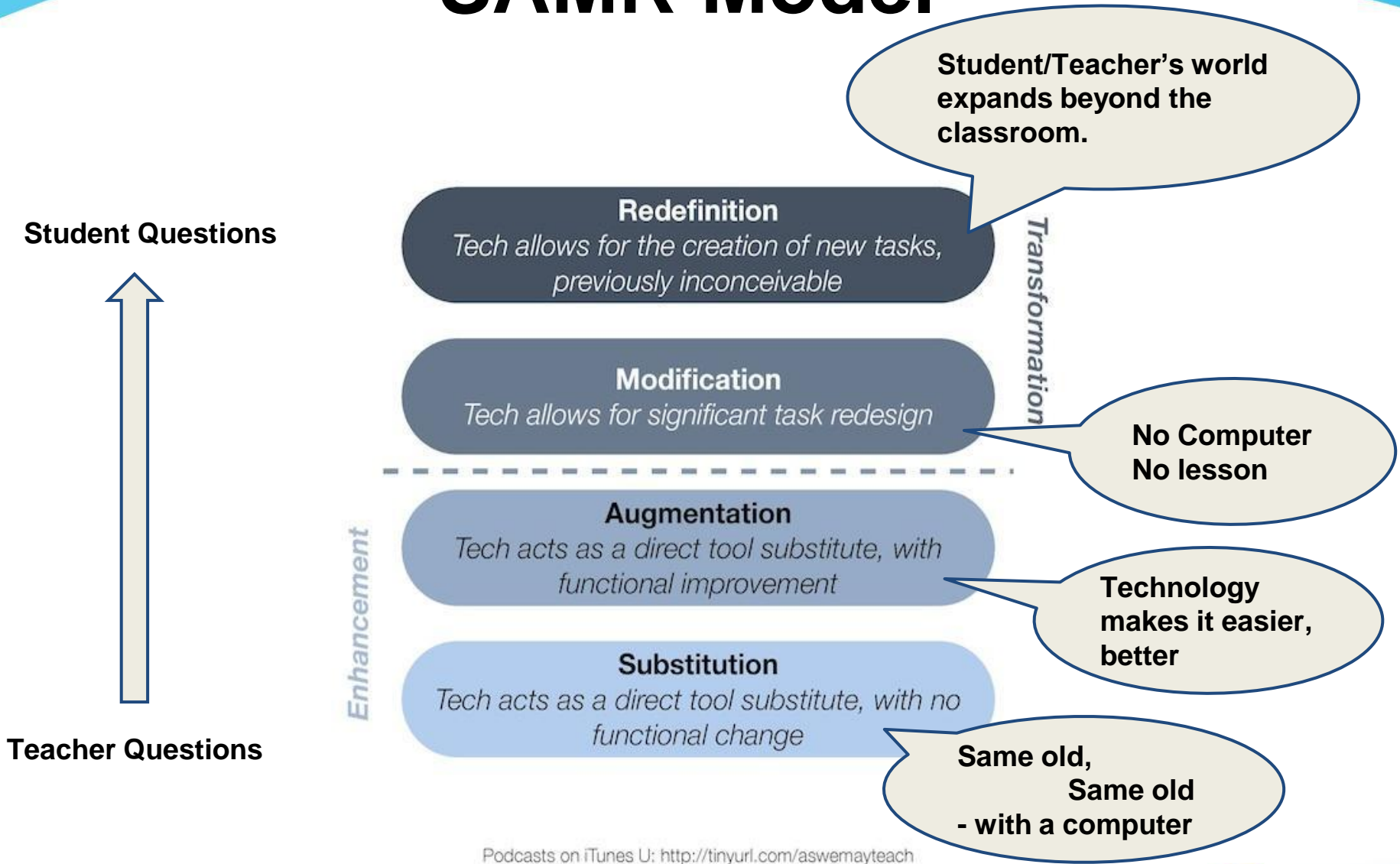
Put it in a new Explain
Everything slide show.



Sketch
(Creativity, Reflection, Collaboration)



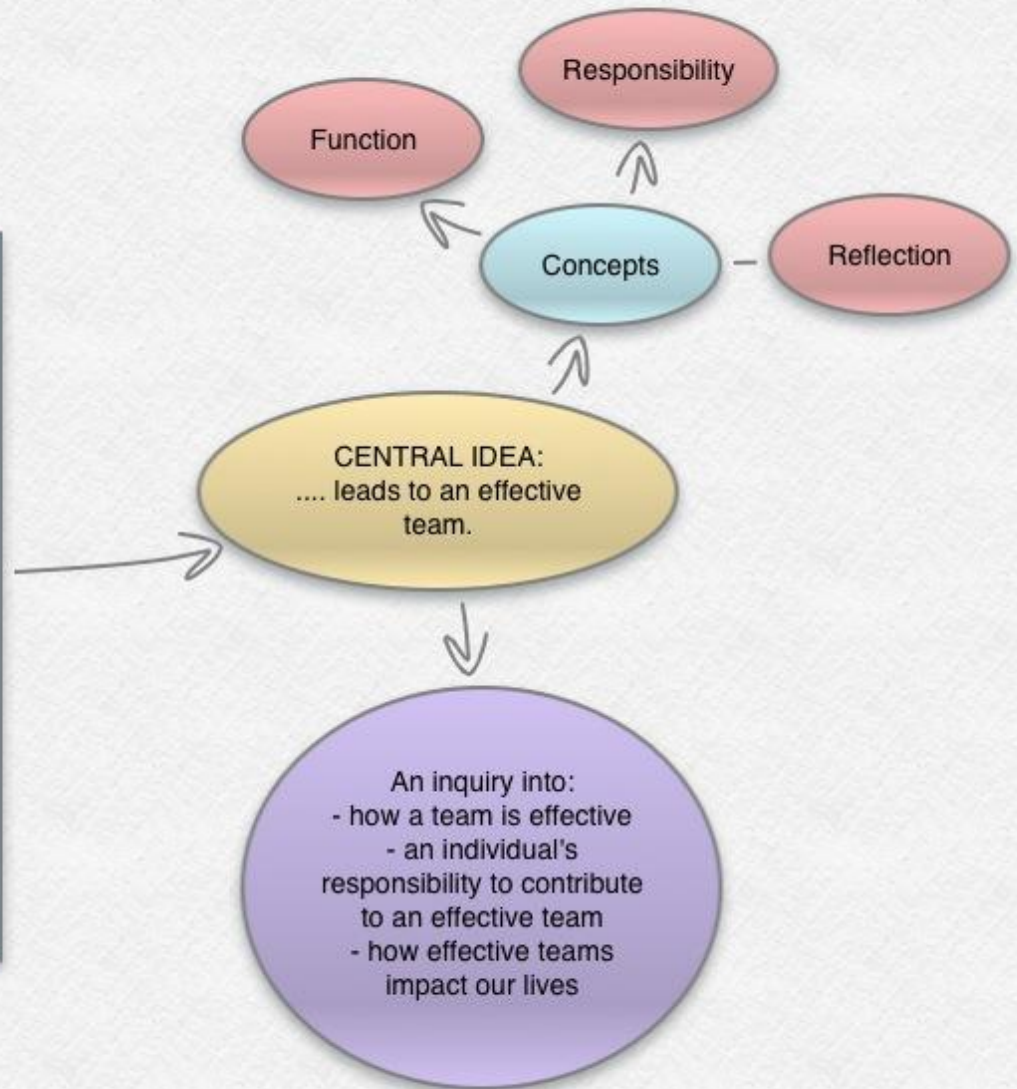
SAMR Model



Unit 4

How we organize ourselves

An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.



Ferrari World and F1 Circuit



What is Minecraft?

A Sandbox Game



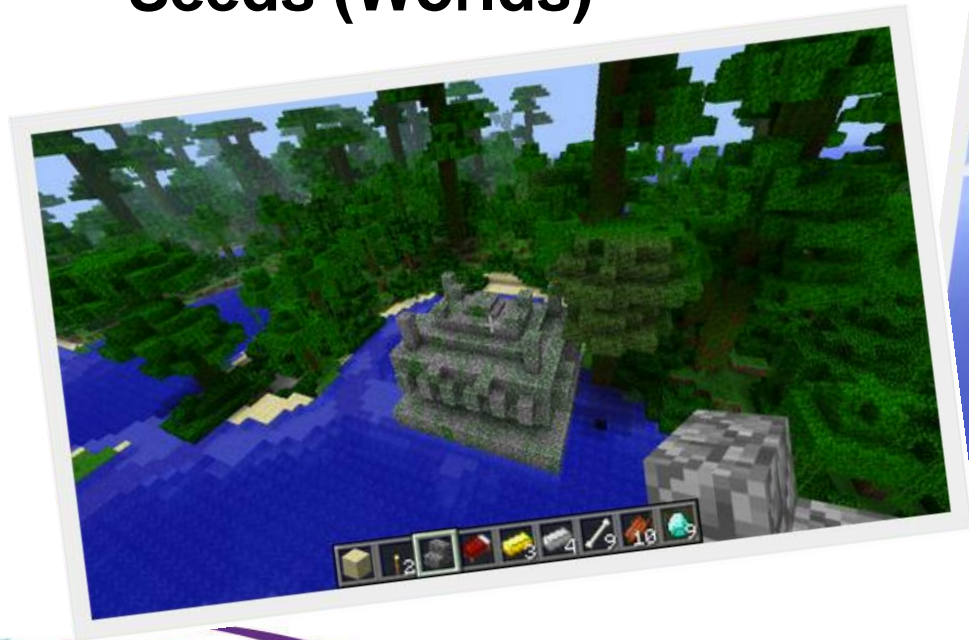
The official resource on everything *Minecraft*.

Facts:

- Alpha version 2009
- Beta version 2011
- over **12 million** PC/Mac versions sold
- pocket versions for iPad and Android, PC/Mac versions, XBox 360 version out now



Seeds (Worlds)



Minecraft EDU

The logo for MinecraftEdu.com features the text "MinecraftEdu.com" in a green, blocky font with a white outline. The background of the banner is a blurred screenshot of a Minecraft game showing a desert landscape with pyramids and a river.

MinecraftEdu.com

Bringing Minecraft to the Classroom



> 1700 schools worldwide have purchased MinecraftEDU

Who is Teaching Who?

Should you know more than your students?

NO

Brainstorm Team Tasks on Minecraft

EASY

- Build a structure out of stone 50 meters square and 1 story high in 15 minutes

MEDIUM

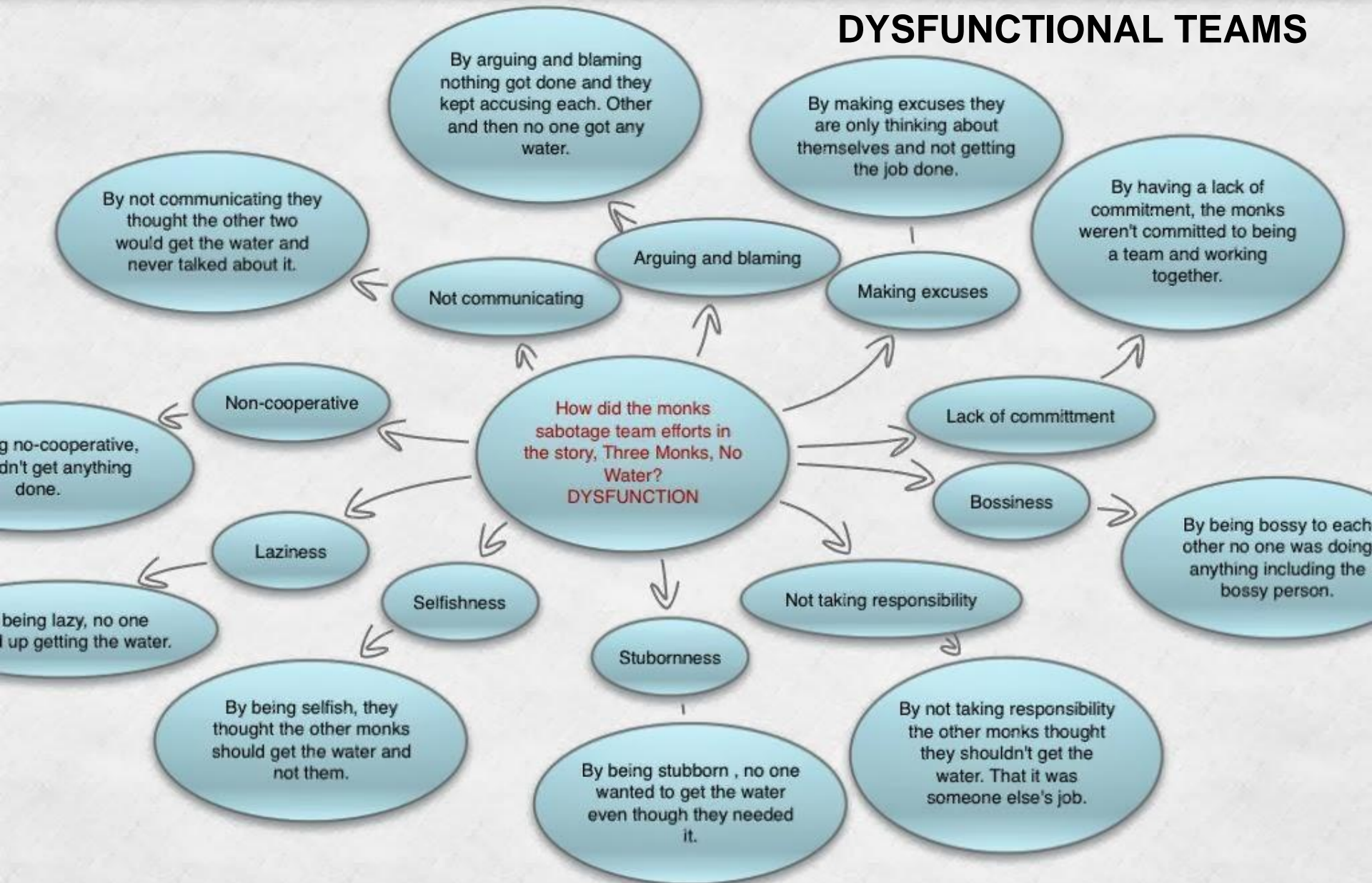
- Build a fence out of wood and capture as many cows as you can in 10 minutes

DIFFICULT

- Build a structure 50m X 75m, 2 stories high with 8 windows and 2 doors



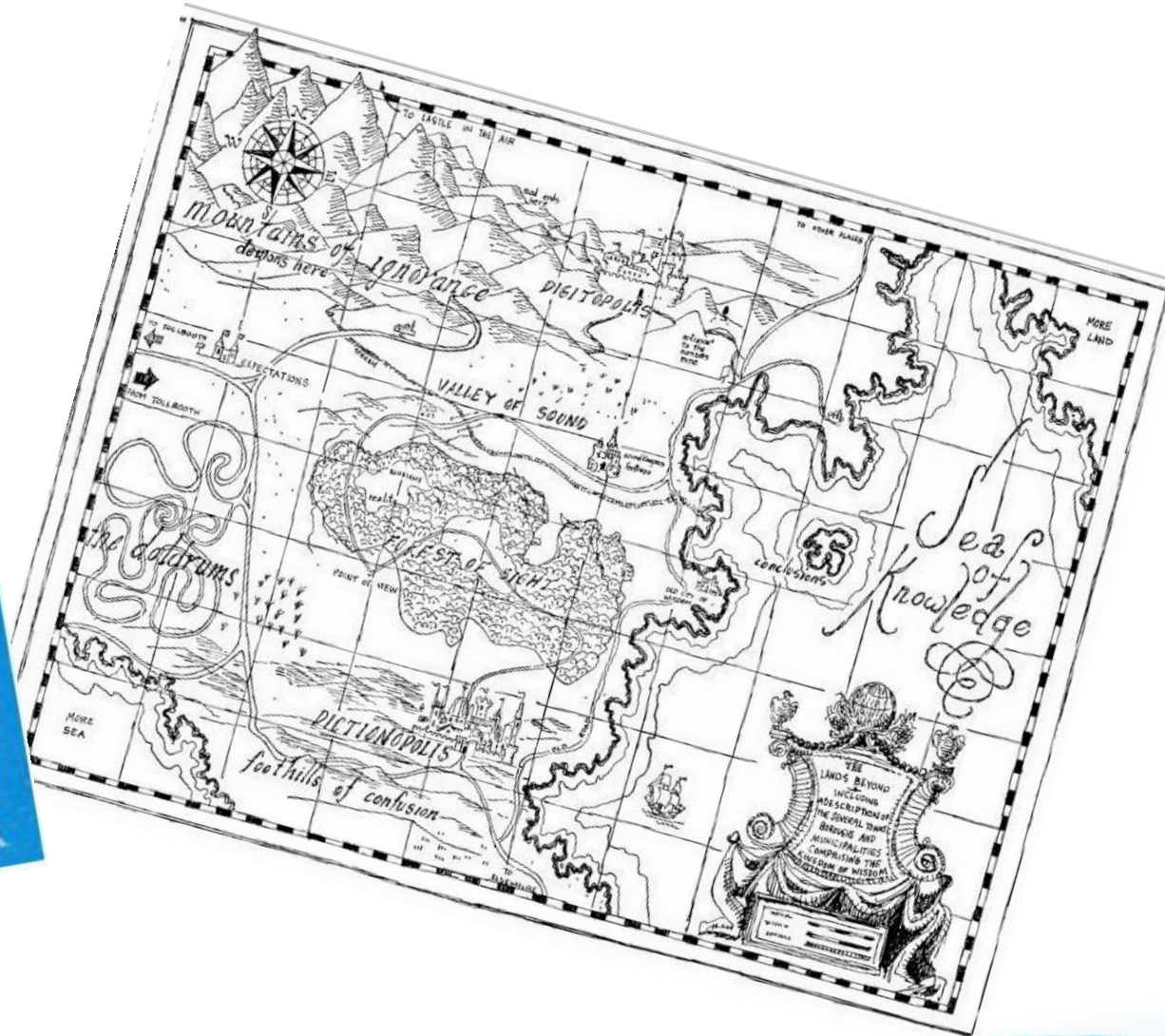
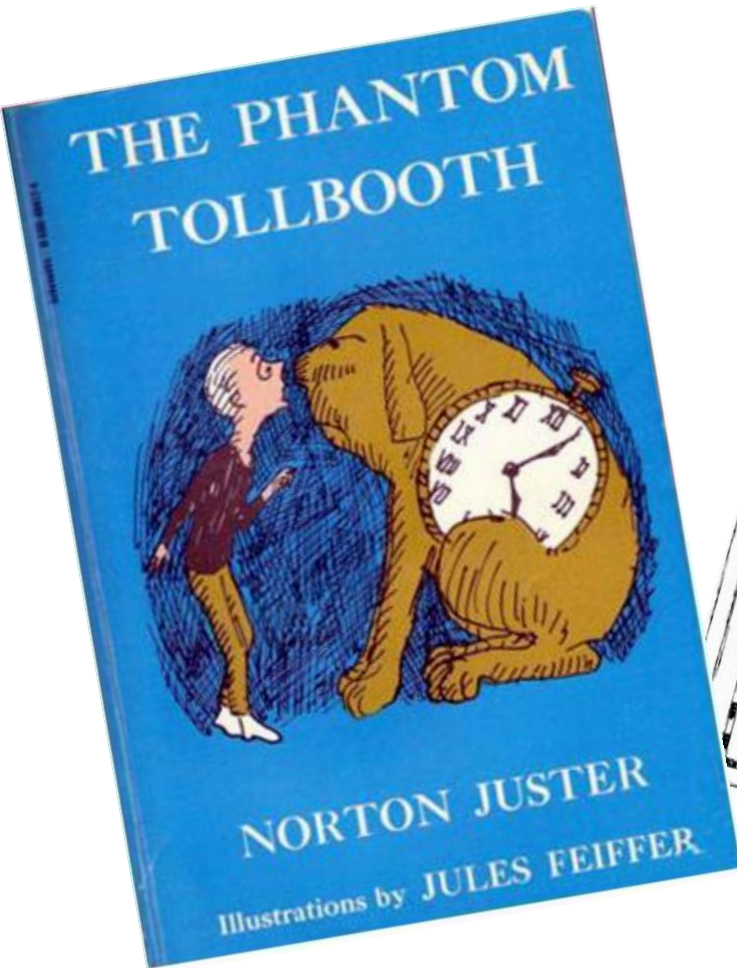
DYSFUNCTIONAL TEAMS







The Phantom Tollbooth



Unit 4 Summative Task

Your team's task is to recreate one of the locations(settings) from the novel, The Phantom Tollbooth, by Norton Juster.

For example:

- The city of Digitopolis
- The city of Dictionopolis
- The Mountains of Ignorance
- The Sound Keeper's Castle
- The Valley of Sound
- The Doldrums

You need to include aspects from the book in as much detail as possible.

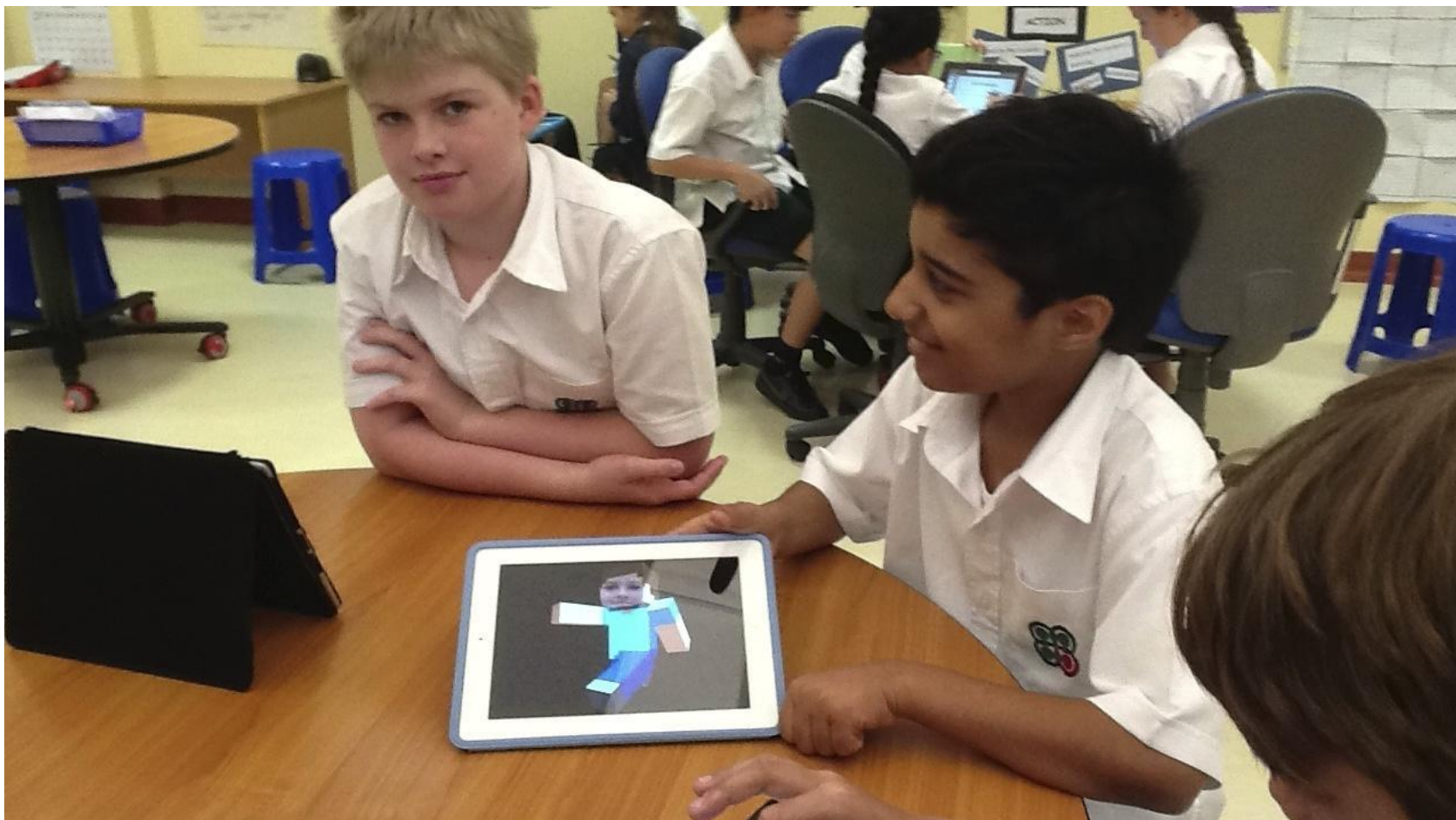
Your presentation should include the following:

- How you divided up the roles
- The method(Apps) you used to plan with before beginning the task
- One 'roadblock' that your team encountered
- How you overcame this 'roadblock'
- How your team demonstrated the PYP Attitudes and Learner Profiles



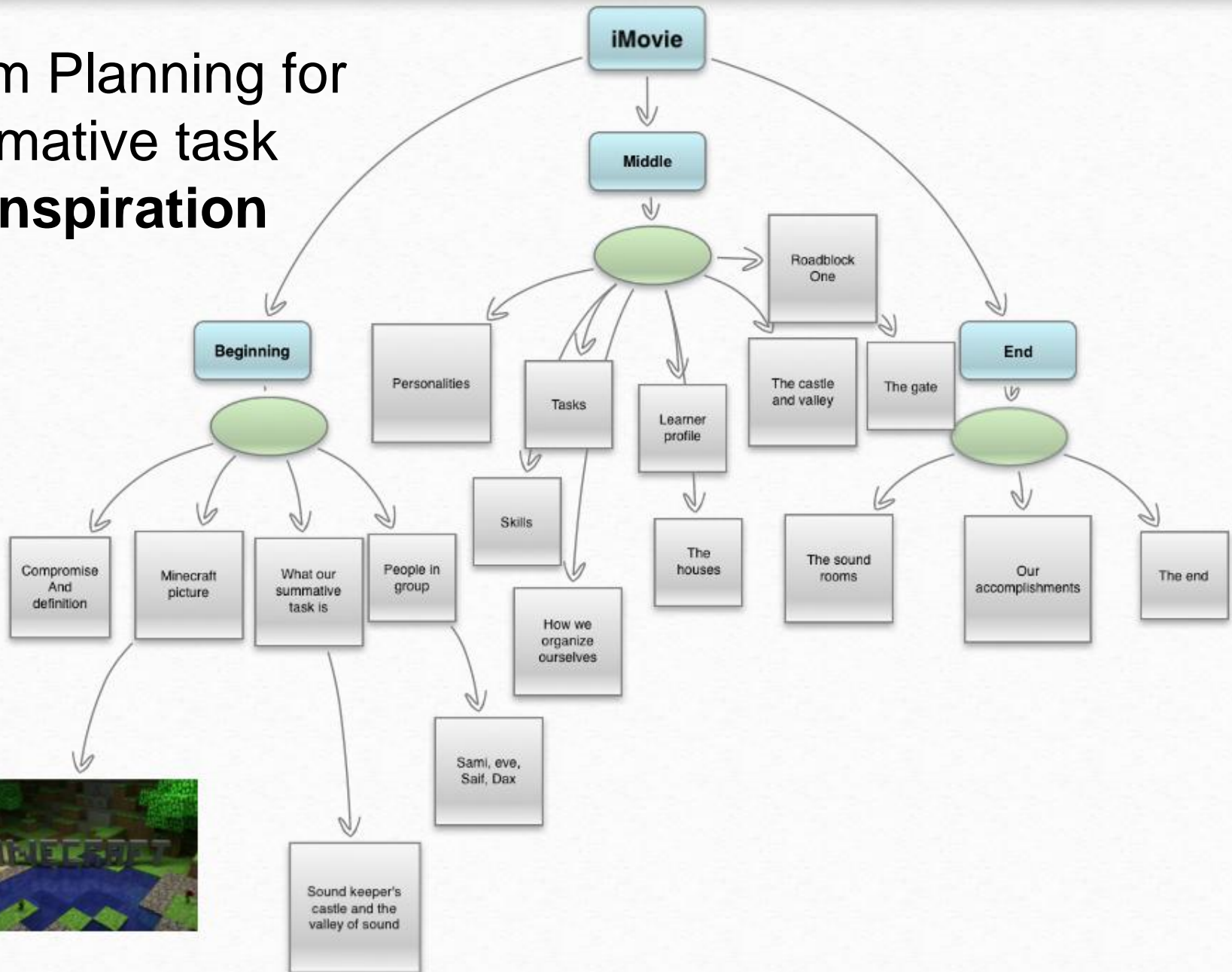








Team Planning for summative task on **Inspiration**



💡 Tip: Ask a question orally, students answer via Socrative. [Learn more](#)

My Room Number

460538

Responses

17/13

Responses:

Jonny team 2 They did really awesome but there were two issues the first one is the fact that it was only Sami talking and when the others were talking he would have to correct them alot and the second thing being that they focused on what they had made in minecraft but not about teamwork and any struggles they made to achieve there goal.

ROGIER I think that group 2 did a good job but they could've done better. They mainly reflected on what they've build but did include all the things needed. Sami took over and didn't let the others speak. Eve did get to speak a little but said and dax only got to say one tiny bit

Noora- Team 2 I think that they did really well, they're presenting was good, learner profiles and attitudes followed the right steps, but the problem was that one person was taking over and not letting the others speak, and the audience thought how one person was reacting that it would change his personality, but other than that they had a good presentation, it gave us a clear notice on what they were doing, and I think also that the learner profiles and attitudes really fit them because I can like see how they used the learner profiles and attitudes.

Amir group 2 I think they had a good presentation but Sami was taking over the entire presentation and didn't let anyone else talk which ruined the presentation (Sami your sure your not a lion right). Also they also forgot the learner profile and attributes that was a big problem and they should have wrote more. But the rest of the presentation was ok other than constant arguing

I think they did a really good job on explaining how their team was effective. But i think what they should work on is how they would work together and stick to their original plan. Name: Zhen Wei

Katherina - group 2 I think that group two had a good presentation, although they should have work on adding the learner profiles. It didn't look like they weren't very ready yet. Sami said that he was a golden retriever although he really acted like a lion, like when eve was trying to say something he took over. Their presentation was a bit too much about minecraft and not really about the teamwork. I think that if they weren't fooling around they could have gotten their presentation done. They forgot a few really important pieces of information.

Amaar, Team 2: I think you did a good job with your presentation. You included everything and explained clearly. The only problem was that Sami took over and was saying everything. He didn't really let the others speak. You could've also worked according to your plan to make it more about the teamwork because your presentation was more about the minecraft than the team.

Nicole Group 2 I think that the groups Minecraft building was very good, but their presentation and their information inside their iMovie wasn't so good. Group 2 added more things about their building than what worked well or the skills or the attitudes etc. they focused more on the Minecraft. It was quite

Peer Feedback on Socrative



Minecraft digitopolis





Unit 4 summative task

What didn't work well

- ◆ That we argued a lot on what block to use.
- ◆ That we sometimes did something that nobody knew about.



Learner profiles we showed

- ◆ Communicating- because when we had issues we communicated to solve them.
- ◆ Open minded- because we shared our ideas.
- ◆ Thinker- because we thought about how to build stuff.





Allyssa

Katherina

Lions



Rogier

Student Reflections

Learner Profiles: Communicator, Reflective, Open-Minded, Caring, Principled

Attitudes: Enthusiasm, Cooperation, Respect, Commitment, Creativity, Tolerance

Skills: Self-Management Skills, Communication Skills, Social Skills, Thinking Skills

.... leads to an effective team.

Organization

Responsibility

Compromise

Cooperation



Teacher Reflection on the Process

- play Minecraft to gain familiarity with it prior to students engaging in it
- add more structure to summative task
eg: have team plan out the building of the structure on another App
- give more small team tasks on Minecraft at the beginning
- give a longer period of time for summative task on Minecraft to be completed

21st Century Skills

The 21st century skills are a set of abilities that students need to develop in order to succeed in the information age.

www.thoughtfullearning.com



Information Age

The period beginning around 1970 and noted for the abundant publication, consumption, and manipulation of information, especially by computers and computer networks.

- American Heritage Dictionary, 2000

(Sociology) a time when large amounts of information are widely available to many people, largely through computer technology.

- Collins English Dictionary, 2013

Information-age jobs require:

- students to think deeply about issues
- solve problems creatively
- work in teams
- communicate clearly in many media
- learn ever-changing technologies
- deal with a flood of information

21st century Skills

Ways of thinking

- creativity
- critical thinking
- problem-solving
- decision-making

Ways of working

- communication
- collaboration



21st Century Skills

Tools for working

- information and communications technology (ICT)
- information literacy

Skills for living in the world

- citizenship
- life and career
- personal and social responsibility

From Conceptual to Practical

from : Assessment and Teaching of 21st Century Skills

Collaborative problem-solving

- Working together to solve a common challenge which involves the contribution and exchange of ideas, knowledge or resources to achieve the goal.



- <http://atc21s.org/index.php/about/what-are-21st-century-skills/>

ICT literacy — learning in digital networks

- Learning through digital means, such as social networking, ICT literacy, technological awareness and simulation. Each of these elements enables individuals to function in social networks and contribute to the development of social and intellectual capital.

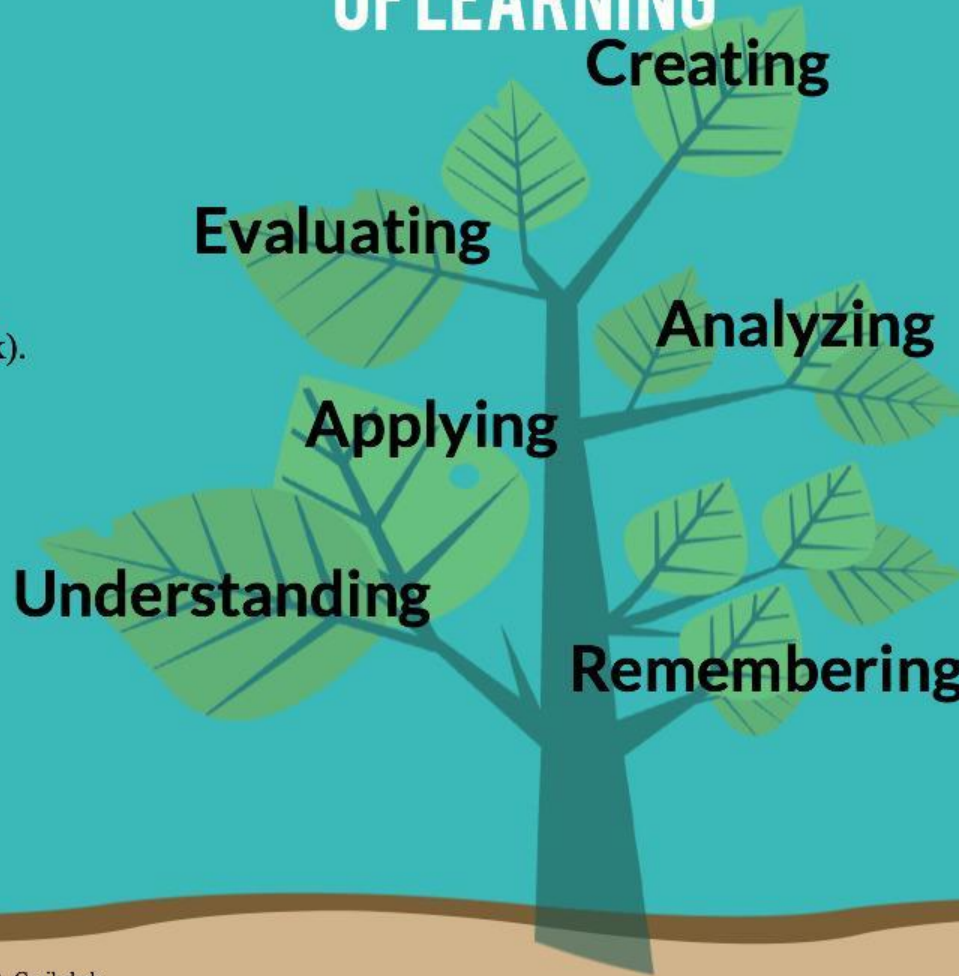


<http://atc21s.org/index.php/about/what-are-21st-century-skills/>



BLOOM'S ^{Revised} TAXONOMY OF LEARNING

"After a learning episode, the learner should have acquired new skills, knowledge, and/or attitudes" (Clark).



To the most complex



From the simplest
behavior

References

Anderson, L., Krathwohl, R., Airaisian, P., Cruikshak, K., Mayer, R., Pintrich, P. Raths, J. and Wittrock, M. (Eds.) (2001). Taxonomy for Learning, Teaching and Assessing: A revision of Bloom's Taxonomy. New York: Longman.

Bloom, B. S., Engelhart, M. D. and Furst, E. J. (1956). Taxonomy of Educational Objectives: Handbook I. London: Longmans Green and Co. Ltd.

Clark, D. (n.d.). Blooms taxonomy of learning. Retrieved from <http://www.nvlink.com/~dnc/clark/hrd/bloom.html>

by: Mia MacMeekin
AN ETHICAL ISLAND BLOG

The rapid changes in our world require students to be flexible, to take the initiative and lead when necessary, and to produce something new and useful.

- www.thoughtfullearning.com



Employers want workers who can ...

- ❑ think critically
- ❑ solve problems creatively
- ❑ innovate
- ❑ collaborate
- ❑ communicate

2013 report by:

- Association for Career and Technical Education (ACTE)
- Career Technical Education (CTE)
- Partnership for 21st Century Skills (P21)



Are your students ready for the 21st century?



Are you?

Mary Kay Polly - Raha International School

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