



The 4Cs in Action

Parent Workshop 2 – Hurstville Public School

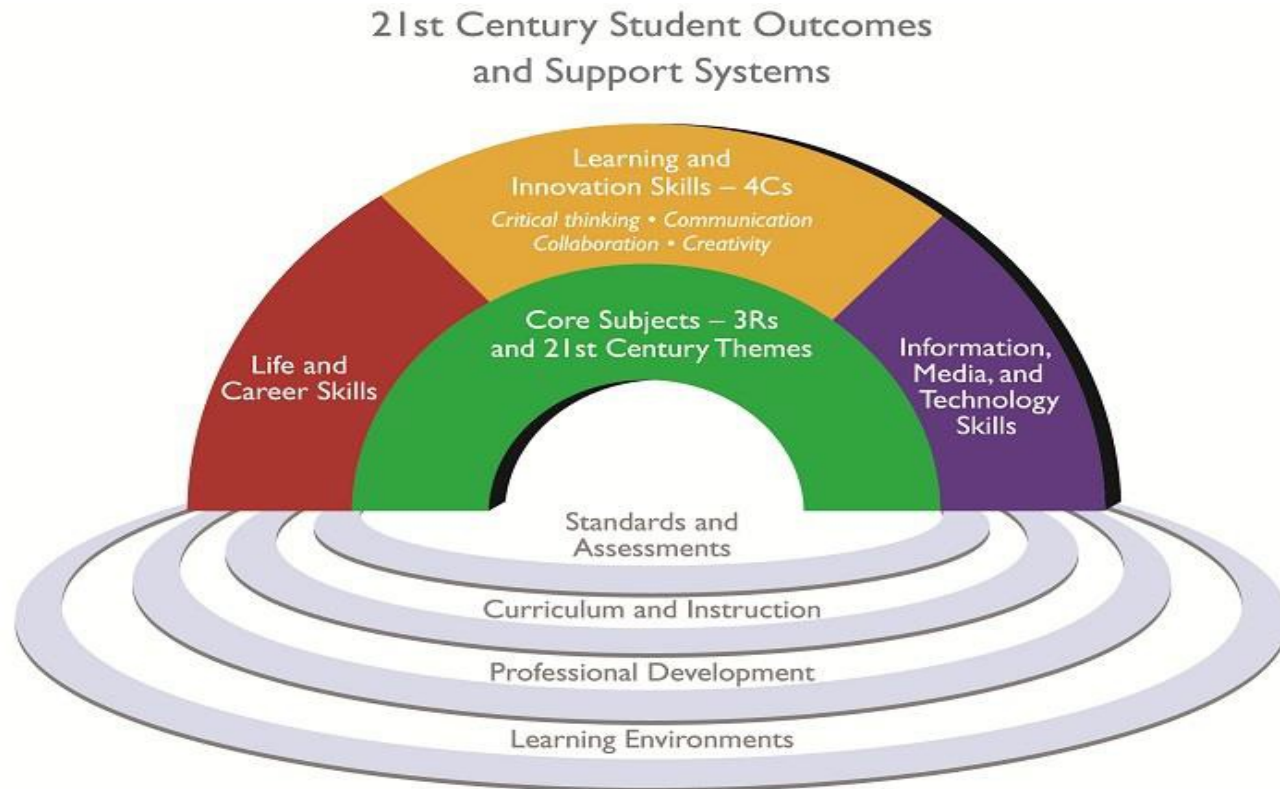
Tuesday 14th June 2016

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Outline

- ❖ **Welcome and Sign on**
- ❖ **Intro – Recap**
- ❖ **Activity Stations**
- ❖ **PBL Demonstration**
- ❖ **Spaghetti Towers**
- ❖ **BREAK**
- ❖ **Literacy – PiggyBook**
- ❖ **Discussion**
- ❖ **Post Survey**
- ❖ **Making resources**

21st Century Student Outcomes & Support Systems.



Partnership for 21st Century Skills: Framework for 21st Century Learning

21st century skills for Australian students





















- **“To cope with the demands of the 21st century, people need to know more than core subjects. They need to know how to use their knowledge and skills by thinking critically, applying knowledge to new situations, analyzing information, comprehending new ideas, communicating, collaborating, solving problems, making decisions.” – Partnership for 21st Century Skills**

[http://www.dec.nsw.gov.au/documents/15060385/15385042/21C skills for Australian students_141112.pdf](http://www.dec.nsw.gov.au/documents/15060385/15385042/21C_skills_for_Australian_students_141112.pdf)

Resources/Tools to facilitate 4Cs

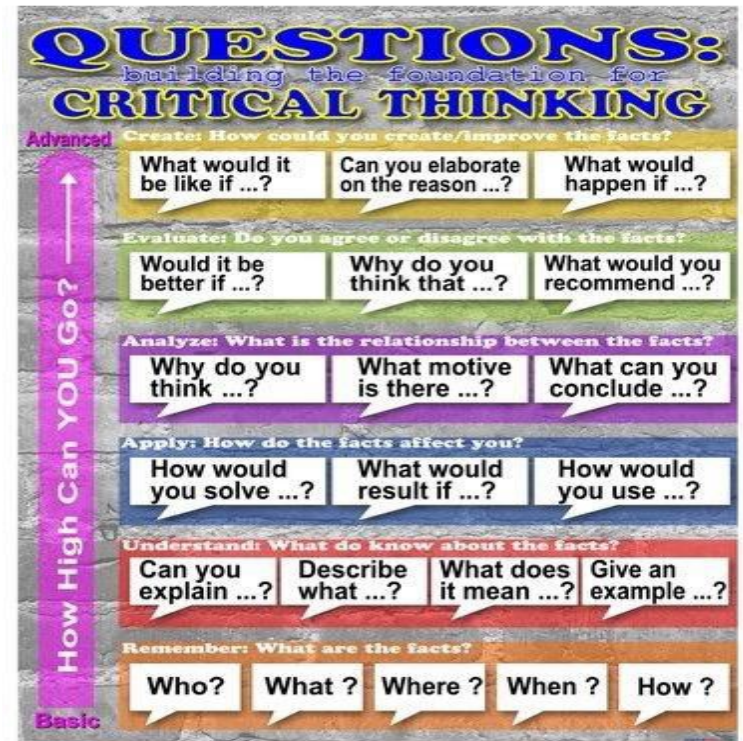
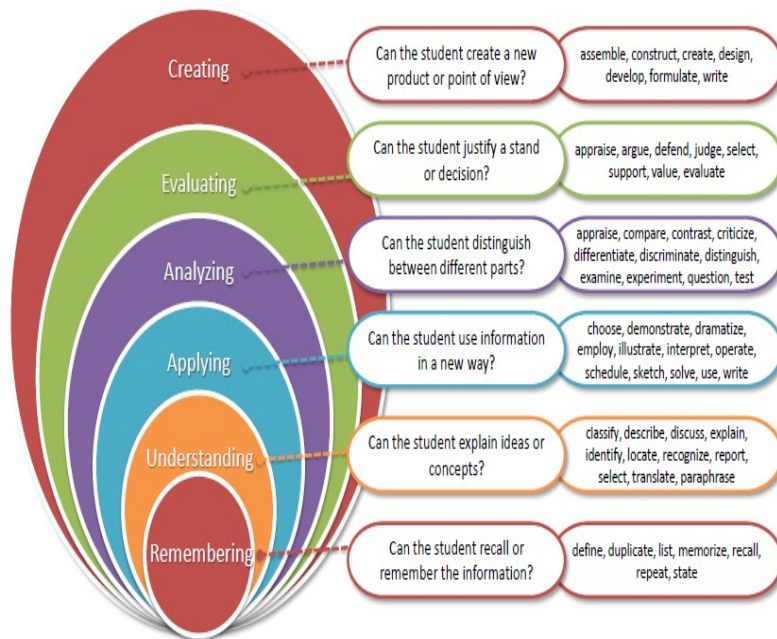


Thinker's Keys

<p>The reverse:</p>  <p>Place words such as cannot, never and not in sentences which are commonly displayed in a listing format.</p>	<p>The What if:</p>  <p>You can ask virtually any What If question. They can be either serious or frivolous. One excellent means of displaying ideas from this key is to draw up an Ideas Wheel. Great for introducing an area of study, and for tapping into the students' knowledge base. It also generates loads of innovative ideas</p>	<p>The disadvantages:</p> <p>List disadvantages and improvements for: Choose an object, eg an umbrella, or a practice, eg playground duty, and list a number of its disadvantages. Then list some ways of correcting, or eliminating these disadvantages.</p> 	<p>The combination:</p>  <p>List the attributes of 2 dissimilar objects (one within your area of study, one outside), then combine the attributes into a single object.</p>
<p>The BAR:</p> <p>The following acronym, or ladder of words, can be used by different age groups (ranging from Yr 1 to adults) to reinvent or redesign everyday objects.</p> <p>BIGGER ADD REPLACE</p> 	<p>The alphabet:</p>  <p>Choose an object or general category of objects which features in the area of study and compile a list of words from A to Z which have some relevance to the object/s. Then try to expand on some ideas which link with each of the words.</p>	<p>The variations:</p> <p>This key employs a special group of words. Start each question with "How many ways can you ..."</p> 	<p>The picture:</p> <p>The teacher draws a simple diagram which has no relevance to the area of study and the students then try to work out ways in which it could be linked with that area. As an interesting imaginative writing exercise, ask the students to compile a list of 10 things that the diagram could represent.</p> 
<p>The prediction:</p>  <p>Ask for a series of predictions in regard to a particular situation, product or set of circumstances.</p>	<p>The different uses:</p>  <p>Put your imagination to work and list some widely different uses for a chosen object from your area of study.</p>	<p>The ridiculous:</p>  <p>Make a ridiculous statement that would be virtually impossible to implement, and then attempt to actually substantiate it.</p>	<p>The commonality:</p>  <p>Decide upon 2 objects which would generally have nothing in common, and try to outline some points of commonality between them.</p>
<p>The question:</p>  <p>Start with the answer, and try to list 5 questions which could be linked with that answer</p>	<p>The brainstorming:</p> <p>State a problem which needs to be solved and brainstorm a list of solutions. Start the brainstorm statement with the words 'How to'</p> 	<p>The inventions:</p>  <p>Encourage students to develop inventions which are constructed in an unusual manner. The first step would be to outline the product on paper, which would then lead into possible construction.</p>	<p>The brick wall:</p>  <p>Make a statement which could not generally be questioned or disputed, and then try to break down the wall by outlining other ways of dealing with the situation.</p>
<p>The construction:</p>  <p>Set up a wide variety of construction problem-solving tasks and use lots of readily available materials.</p>	<p>Forced relationships:</p> <p>Develop a solution to a problem by employing a number of dissimilar objects.</p> <p>For Years 1/2 - one object For Years 3/4 - two objects For Years 5/6/7 - three objects For Years 8-12 - four objects</p> 	<p>The alternative:</p>  <p>List ways in which to complete a task without using the normal tools or implements.</p>	<p>The interpretations:</p>  <p>Describe an unusual situation and then think of some different explanations for the existence of that situation.</p>

Critical Thinking

Bloom's Taxonomy (Revised)



De Bono's 6 Thinking Hats

PROCESS



Blue Hat - Process

Thinking about thinking.
What thinking is needed?
Organizing the thinking.
Planning for action.

CREATIVITY



Green Hat - Creativity

Ideas, alternatives, possibilities.
Solutions to black hat problems.

FACTS



White Hat - Facts

Information and data.
Neutral and objective.
What do I know?
What do I need to find out?
How will I get the information I need?

BENEFITS



Yellow Hat - Benefits

Positives, plus points.
Why an idea is useful.
Logical reasons are given.

FEELINGS



Red Hat - Feelings

Intuition, hunches, gut instinct.
My feelings right now.
Feelings can change.
No reasons are given.

CAUTIONS



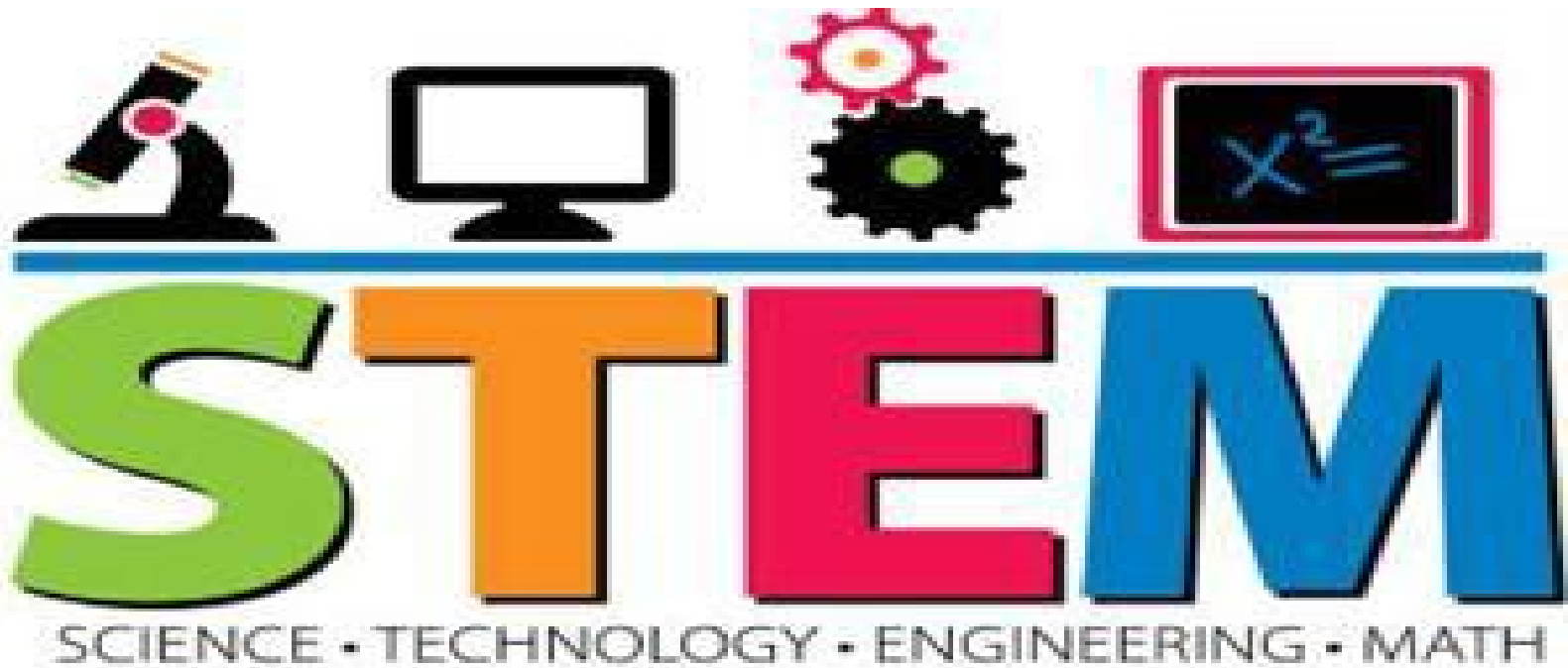
Black Hat - Cautions

Difficulties, weaknesses, dangers.
Spotting the risks.
Logical reasons are given.

Project Based Learning/ Enquiry Based Learning



<https://www.youtube.com/watch?v=LMCZvGesRz8> (PBL)



STEM is a curriculum based on the idea of educating students in four specific disciplines — science, technology, engineering and mathematics — **in an interdisciplinary and applied approach.**

Lazlo Block

Senior Vice President of People Operations for Google

- **“Your degree is not a proxy for your ability to do any job. The world only cares about — and pays off on — what you can do with what you know (and it doesn’t care how you learned it). And in an age when innovation is increasingly a group endeavor, it also cares about a lot of soft skills — leadership, humility, collaboration, adaptability and loving to learn and re-learn. This will be true no matter where you go to work.”**

http://www.nytimes.com/2014/02/23/opinion/sunday/friedman-how-to-get-a-job-at-google.html?_r=0

Brain Gym - Activity Stations for Creative Thinking

To support problem solving, perseverance, 'having a go', thinking about generating ideas and having more than one answer

- Using Ryan's Thinker's Keys
- Number Thinking
- Dot to Dot Game
- Match stick Game

Year 2 2016 – PBL

What can the lives of local people tell us about the past? What can the lives of local people tell us about technology in the past?

What is history and how can we find out about it?

What is the past/present/future? - Timelines - Exploring and evaluating sources of information

- **How have changes in technology shaped our daily life?**

What is technology? - How has it changed over time? - How has it changed our lives?

- **Questioning and Developing Interviewing Skills**

Students interview peers, parents or grandparents

Developing/answering open and closed questions

Fact vs Opinion

PBL groups: Develop interview questions to ask local person (Jenny/Anne), including those relating to technology

What can the lives of local people tell us about the past (and about technology in the past)? (in PBL groups) Researching - Interviewing and recording answers - Converting the information to produce an historical recount:

- Discuss, analyse, share/compare and use the information received via interview to jointly construct a written (historical) recount of life/events from the past.
- Discuss how we can convert oral history into a recount
- Discuss importance of sequencing events/reflections in the correct order
- Discuss options for presentation of group recounts (choice of format: eg. play, poster, movie, narrative, written recount etc) - Groups begin to produce their recount/presentation (based on their focus area).

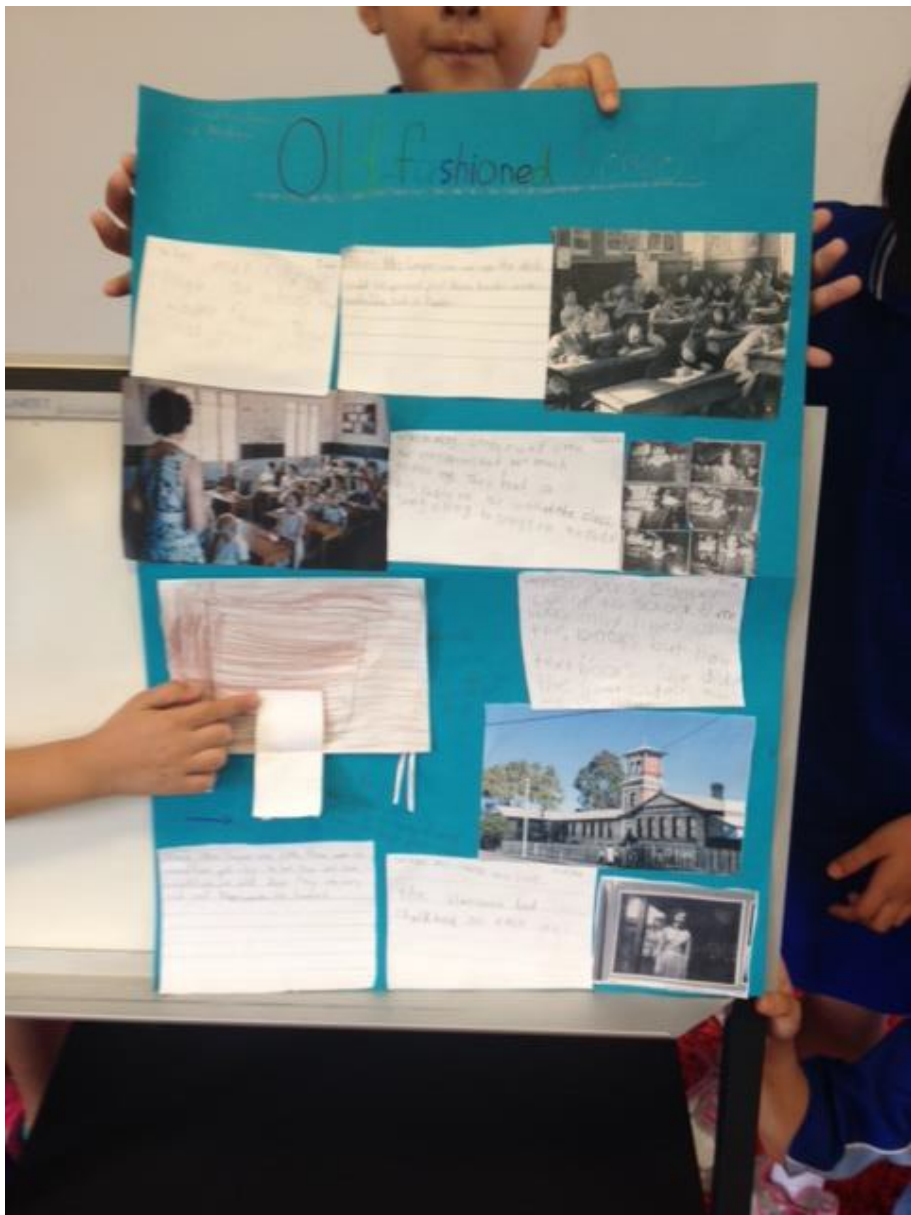
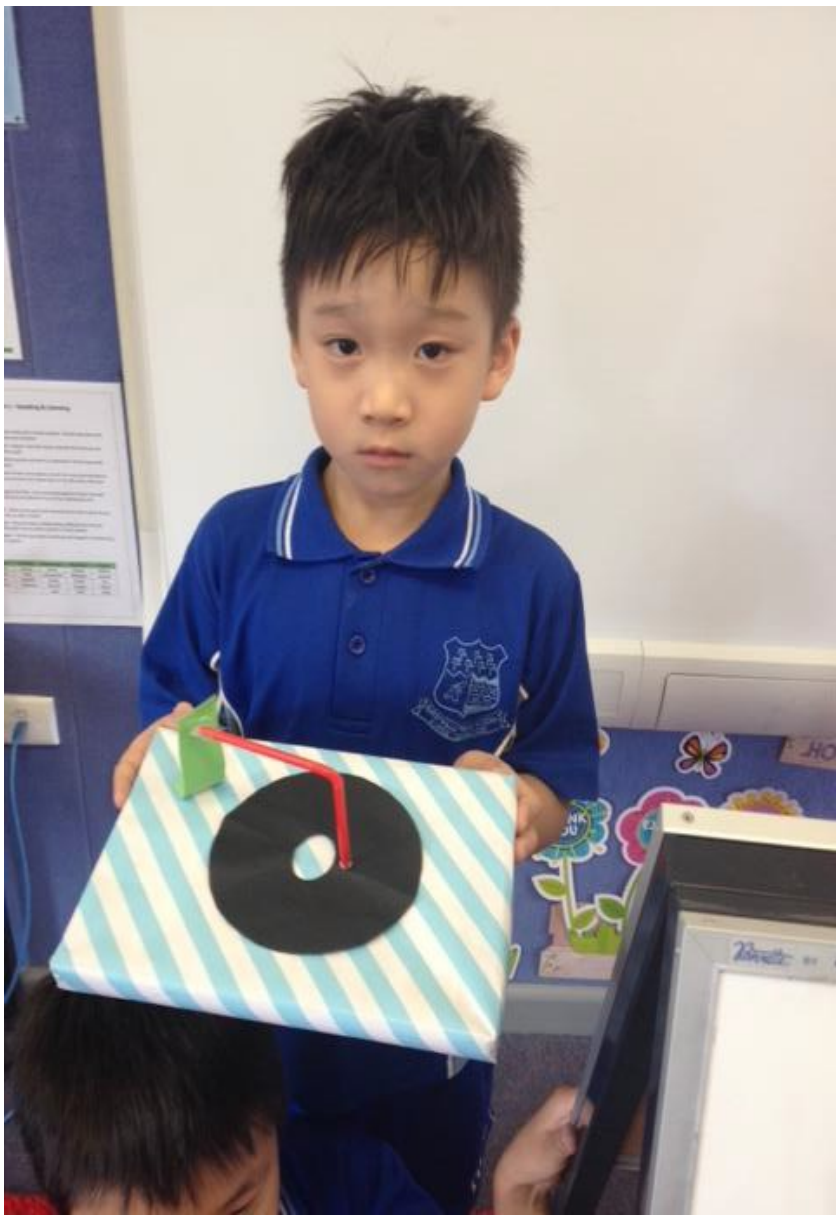
- **Assessment**

Recount in PBL groups (Choice of format e.g. play, poster, movie, narrative etc)

Groups finalise and present their historical recounts to the class.

- Students fill out peer feedback rubrics
- Groups fill out "2 stars and a wish" reflections





Spaghetti and Marshmallows

- Supporting Critical and Creative Thinking, Collaboration and Communication:

Perseverance, having a go (calculated risk taking), drawing on prior knowledge, application of knowledge, reasoning, problem solving, team work, building appropriate communication skills, empathy, social support.

Instructions

- Using only the equipment that you receive, build a tower in 5 minutes. The tallest tower that can stand unaided for at least a minute wins.



Discussion and Post Survey Monkey

- What “take-home” message do you leave with today?
 - Consider the *process* of learning versus the *product* of learning? How important are they both to you? What are the benefits?
 - What questions might you ask your child/ren when you get home?
 - How different are these snapshots of 21st Century Learning skills to the way that you learnt at school?
 - Any Questions?
-
- Post survey Monkey:
<https://www.surveymonkey.com/r/HPSPPOSTSURVEY>

THANK YOU FOR YOUR TIME

Thank you for your time in coming today. This presentation will be on our school website shortly. A list of resources and websites that you might find useful can be found below:

<http://wiseman030.wix.com/21stcenturywow#!21st-century-learners/cx3> (21st Century Learning from AITSL)

http://www.dec.nsw.gov.au/documents/15060385/15385042/21C_skills_for_Australian_students_141112.pdf (DEC article on 21st Century Learning)

<https://tip.duke.edu/node/822> (tips for parents on critical thinking)

<http://aussiechildcarenetwork.com.au/articles/teaching-children/using-open-ended-questions-with-children> (open ended questioning)