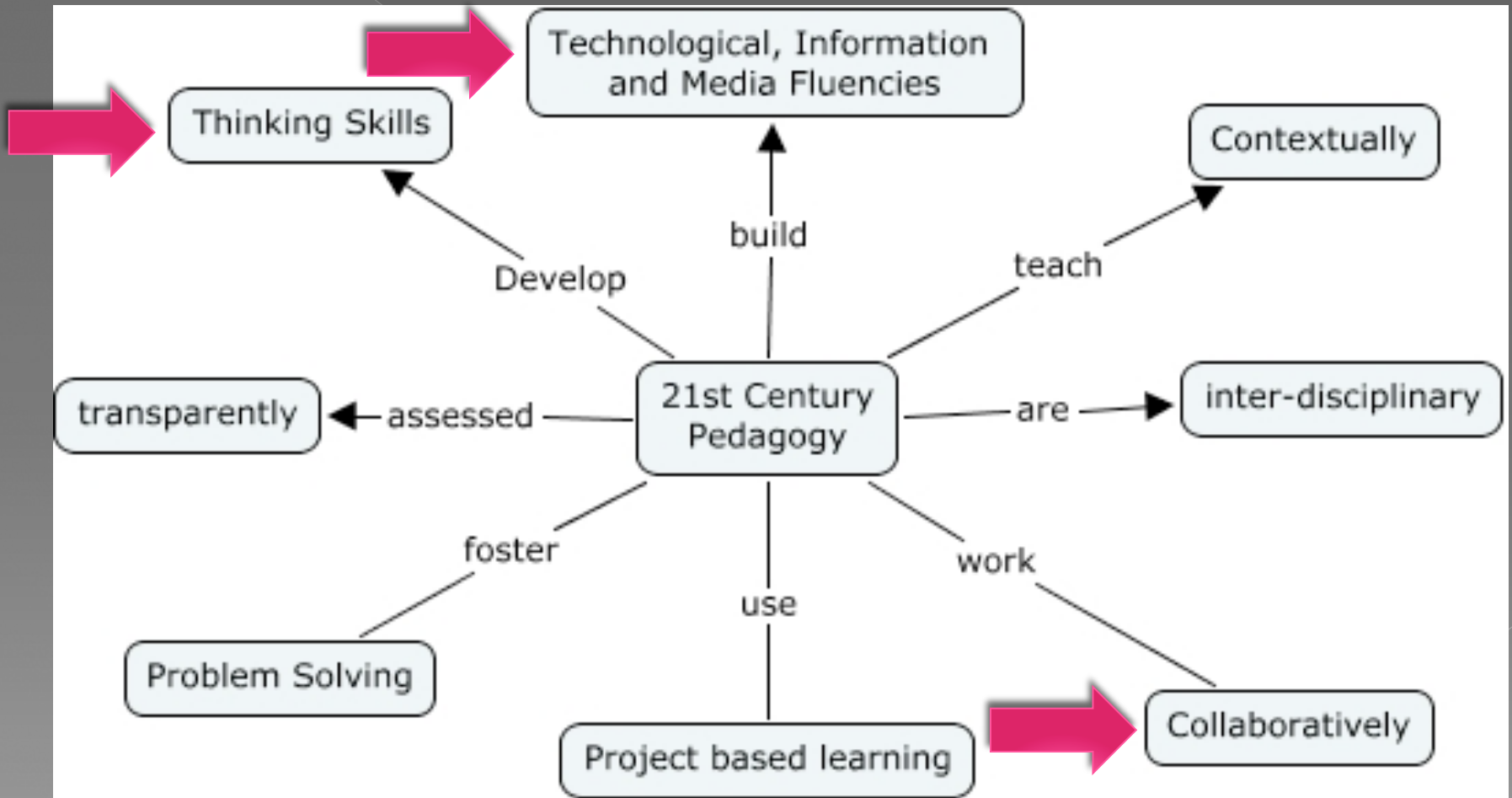# Bloom's Revised Taxonomy

and 21st Century Learning

Session 1

Today you will…

- **Learn** more about Bloom's Revised Taxonomy & how it benefits teachers and students

- **Discuss** ways you can implement a new activity or two into your current lessons plans

- **Collaborate** with peers

Key Features of 21ˢᵗ Century Pedagogy

Technological, Information and Media Fluencies

Thinking Skills

Contextually

build

Develop

teach

transparently ← assessed — 21st Century Pedagogy — are → inter-disciplinary

foster

work

use

Problem Solving

Project based learning

Collaboratively

Why use Revised Bloom's Taxonomy?

- **Important:** It aligns with NC Essential Standards and Common Core.
- Objectives (learning goals) set a purpose for learning for both teachers and students.
- Teachers can benefit from using frameworks to organize objectives because…
- Organizing objectives helps to clarify objectives for everyone.
- Having an organized set of objectives helps teachers to:
  › plan and deliver appropriate instruction
  › design valid assessment tasks and strategies
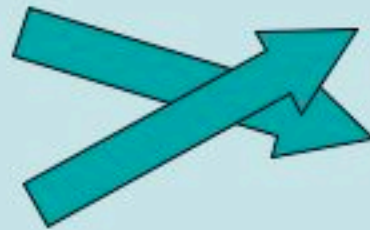 › ensure that instruction and assessment are aligned with the objectives

What's different?

- Nouns changed to verbs
- Synthesis domain changed to "Creating"
- Evaluating moved lower on hierarchy
- One-dimensional to two-dimensional
  › Knowledge dimension
  › Cognitive Process dimension
- Emphasis on meta-cognition

Original Domain   New Domain

- Evaluation
- Synthesis
- Analysis
- Application
- Comprehension
- Knowledge

- Creating
- Evaluating
- Analyzing
- Applying
- Understanding
- Remembering

What's different?

- Nouns changed to verbs
- Synthesis domain changed to "Creating"
- Evaluating moved lower on hierarchy
- One-dimensional to two-dimensional
  - Knowledge dimension
 - Cognitive Process dimension
- Emphasis on meta-cognition

How's it organized?

- Categories ordered:
  - Simple to complex
  - Concrete to abstract

- Categories can and will overlap

Higher Order Thinking Skills

Creating

Evaluating

Analysing

Applying

Understanding

Remembering

Lower Order Thinking Skills
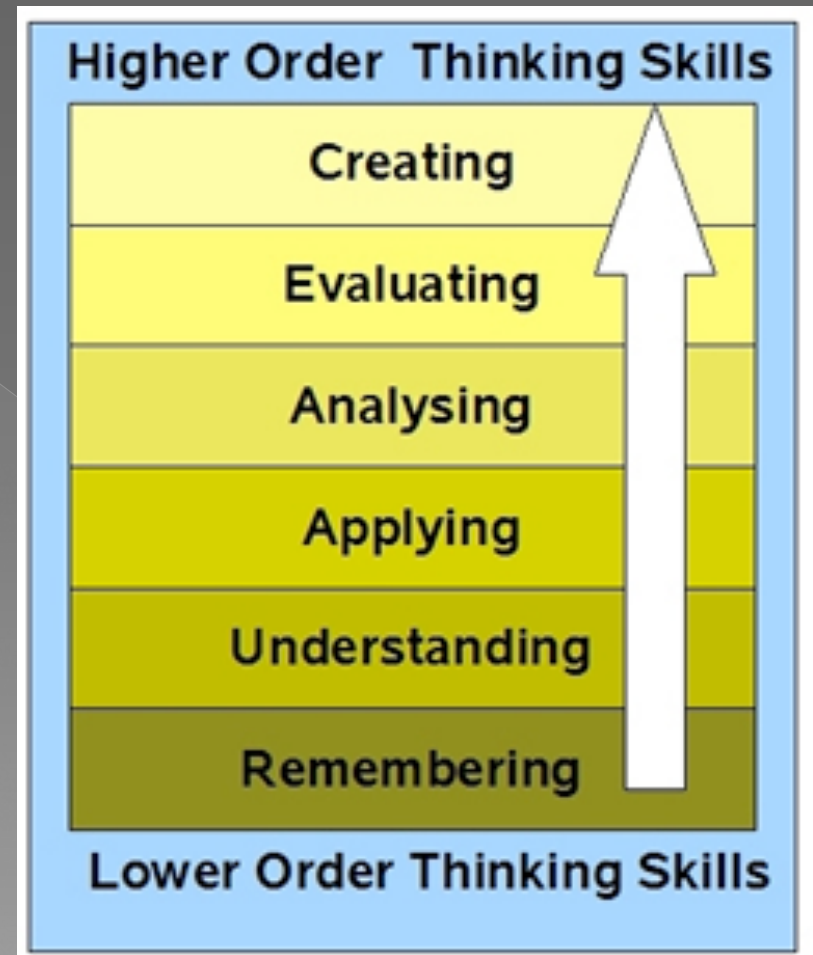
Cognitive Process Dimension

- The cognitive process refers to the verb used in the standard.
- There are six:
  - Remember
  - Understand
  - Apply
  - Analyze
  - Evaluate
  - Create

Creating

Evaluating

Analyzing

Applying

Understanding
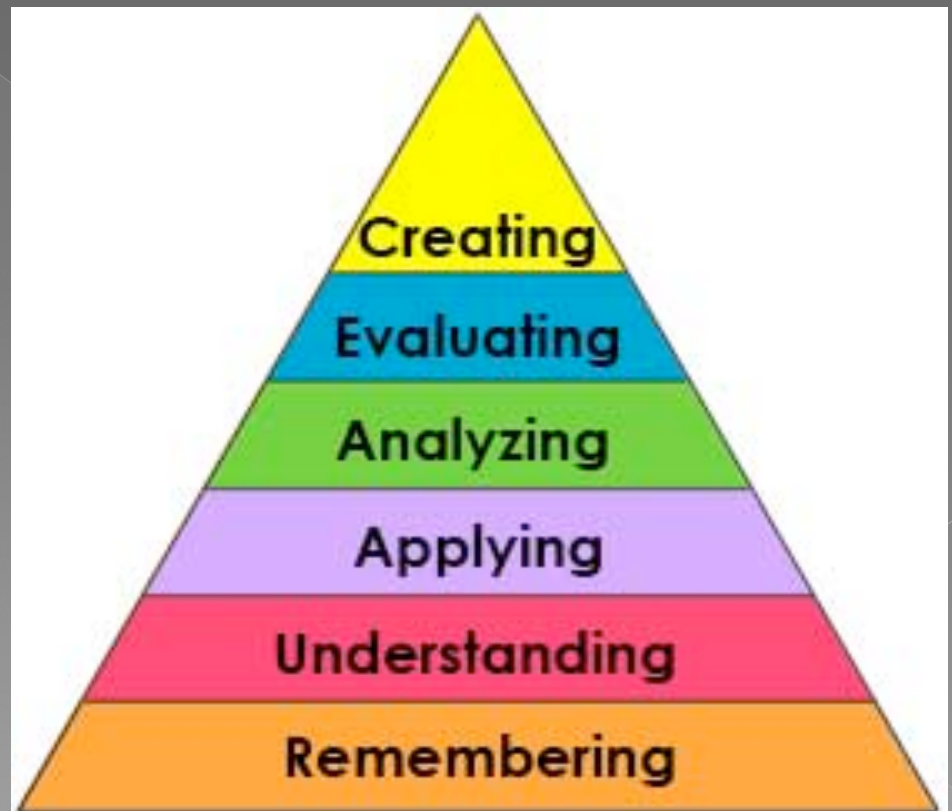
Remembering

Module Video Clip

- Higher-order thinking skills-
  - › Apply
  - › Analyze
  - › Evaluate
  - › Create
- https://center.ncsu.edu/nc/mod/resource/view.php?id=170001

Example

- **Remember**: Describe where Goldilocks lived.
- **Understand**: Summarize what the Goldilocks story was about.
- **Apply**: Construct a theory as to why Goldilocks went into the house.
- **Analyze**: Differentiate between how Goldilocks reacted and how you would react in each story event.
- **Evaluate**: Assess whether or not you think this really happened to Goldilocks.
- **Create**: Compose a song, skit, poem, or rap to convey the Goldilocks story in a new form.

Knowledge Dimension

- A way to categorize the type of knowledge to be learned. For instance, in the standard,

  "The student will understand the concept of equality as it applies to solving problems with unknown quantities", the knowledge to be learned underlined.

- Knowledge in the RBT falls into four categories:
  › Factual Knowledge
  › Conceptual Knowledge
  › Procedural Knowledge
  › Meta-Cognitive Knowledge

Knowledge Types

- **Factual:** terminology, specific details and elements
- **Conceptual:** classifications & categories, theories & generalizations, theories & models/structures
- **Procedural:** subject-specific skills, algorithms, techniques, & methods
- **Meta-cognitive:** strategic knowledge, self knowledge, & knowledge about cognitive tasks

Module Video Clip

- Knowledge Types/Recipe Comparison
- https://center.ncsu.edu/nc/mod/resource/view.php?id=230951

Teaching Digital Natives

- What are "digital natives"?
  - A person born during or after the general introduction of digital technology
- "Today's students are no longer the people our educational system was designed to teach."

  -Marc Prensky

- Students are actually learning differently!

Olena Benedyktova

Bloomin' Apps - Kathy Schrock

iPad Apps to Support Bloom's Revised Taxonomy
assembled by Kathy Schrock

End of Session 1- Wrap up

- With your grade level members, choose one subject area to focus on.
- Use any of the materials in your handout packet to help you plan a couple of activities that align with/incorporate Bloom's Revised Taxonomy.
- Example in packet

Using the Taxonomy Table in Unit Planning

The Knowledge Dimension	1. *Remember*	2. *Understand*	3. *Apply*	4. *Analyze*	5. *Evaluate*	6. *Create*
A. *Factual Knowledge*						
B. *Conceptual Knowledge*				X		X
C. *Procedural Knowledge*						
D. *Metacognitive Knowledge*						

The Cognitive Process Dimension

Figure 1. The placement in the Taxonomy Table of the State of Minnesota's Language Arts Standard for Grade 12.

Taxonomy Table

- Helps teachers decide where and how to improve these areas:
  - › curriculum planning
  - › delivery of instruction
- Can be used for curriculum alignment and/or to find missed educational opportunities