OBJECTIVE: Thorough planning of a CC Standard with all components of Competency.

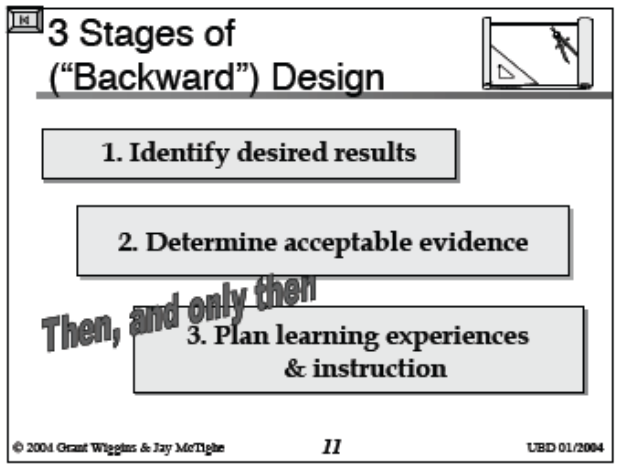
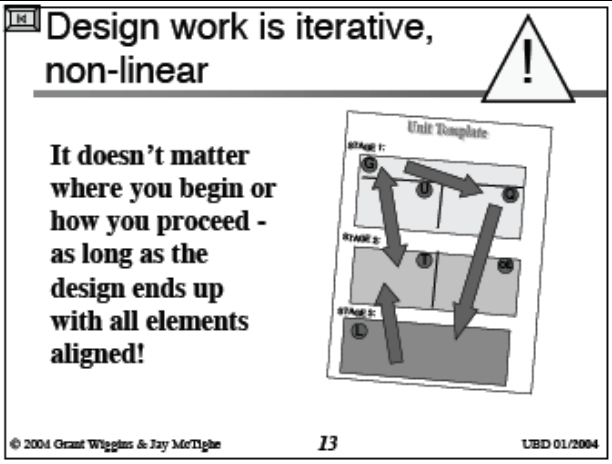
The Format based on Depth of Knowledge, Math Practices, Understanding by Design

MP1 **Make sense of problems and persevere in solving them**	**MP2** **Reason abstractly and quantitatively**	**MP3** **Construct viable arguments and critique the reasoning of others**	**MP4** **Model with mathematics**
MP5 **Use appropriate tools strategically**	**MP6** **Attend to precision**	**MP7** **Look for and make use of structure**	**MP8** **Look for and express regularity in repeated reasoning**

Top 10 list of learning influences on achievement based on thousands of Meta-analysis (circa 250 million students over the past 30 years in US and English speaking countries):

1. Student Self Assessment/ along High Expectations (144%) 2. Piagetian programs (128%) 3. Response Intervention (107%) 4. Teacher Credibility (90%) 5.Providing Formative Evaluation (90%) 6. Micro-Teaching (88%) 7. Classroom discussion (82%) 8. Teacher Clarity (75%) 9.Feedback (75%) 10.Reciprocal Teaching (75%)

➔%= Percentage of Learning Improvement in Visible Learning, by John Hattie

UNDERSTANDING BY	DESIGN
	

REVISED BLOOM'S TAXONOMY (Anderson & Krathwohl, 2000):

Remember ➔	**Understand ➔**	**Apply ➔**	**Analyze ➔**	**Evaluate ➔**	**Create 8-)**

WEBB'S DEPTH OF KNOWLEDGE (1997):

Recall	**Skill/Concept**	**Strategic Thinking**	**Extended Thinking**

NEW TAXONOMY EDUCATIONAL OBJECTIVES (Marzano & Kendall, 2007):

Retrieval	**Comprehension**	**Analysis**	**Knowledge Utilization**

Understanding by Design – Backward Planning

Subject Area: Time Frame:

Stage 1 – Desired Results

Any Prior Established Goals:

New CC Standard:	
Main Concepts and Applications	**New Skills and Procedures**
Prior related concepts	***Required Skills***
Desired Vocabulary Understanding:	**Essential questions**

Probable Misconceptions: _____
_____
_____

Stage 2: Evidence – Learning and Assessment Activities

Evidence to show students understand

Performance Task(s): **Practices**: **Criteria for Success [Competency]**:	MATH PRACTICES USED: MP1 MP2 MP3 MP4 MP5 MP6 MP7 MP8

Evidence needed to determine Desired Results?

Daily Observation: **E-tickets:** **Project(s):** **Group:**	**Formal Assessments**: **Informal Assessments:** **Checks for Understanding:**
Timed and type of feedbacks involved for above:	
Writing components incorporated in …	

Student Self-Assessment

How will the student know own accomplishment of learning?

Daily Narratives, Journal Prompts, Unit Assessment, other

Stage 3 – Learning Plan Agenda

***Day 1: Remember**	**Order Of Process Below can vary** Intro Interest Brain Storm Retrieve Recognize Recall Procedure Check	Hook. Exploration. Connection. Relevance.
Day 2: Understand	Specify Explain Summarize Predict Data Estimate Models Procedure Check	
Day 3:Apply	Use of knowledge Show reasoning Conjecture Relate Conduct	
Day 4:Analyze	Gather Evaluate Project Reorganize Detect Focus	
Day 5: Evaluate	Justify Provide Prove Show Convince	
Day 6: Create	Synthesize Generate Formulate Develop Design	
Day 7: Assess		BACKWARD DESIGNED FORMATIVE ASSESSMENT OF DESIRED RESULTS

: / <u>POST</u>: Reflection. Continue to next standard, or Re-Teach with new approach.

* "Day 1", "Day 2", etc.- Lesson Progression will vary according to school schedule and student learning goals.