




# **Understanding by Design (UbD): The Core of the 2010 SEC**

by:

Director Lolita Andrada - DepEd



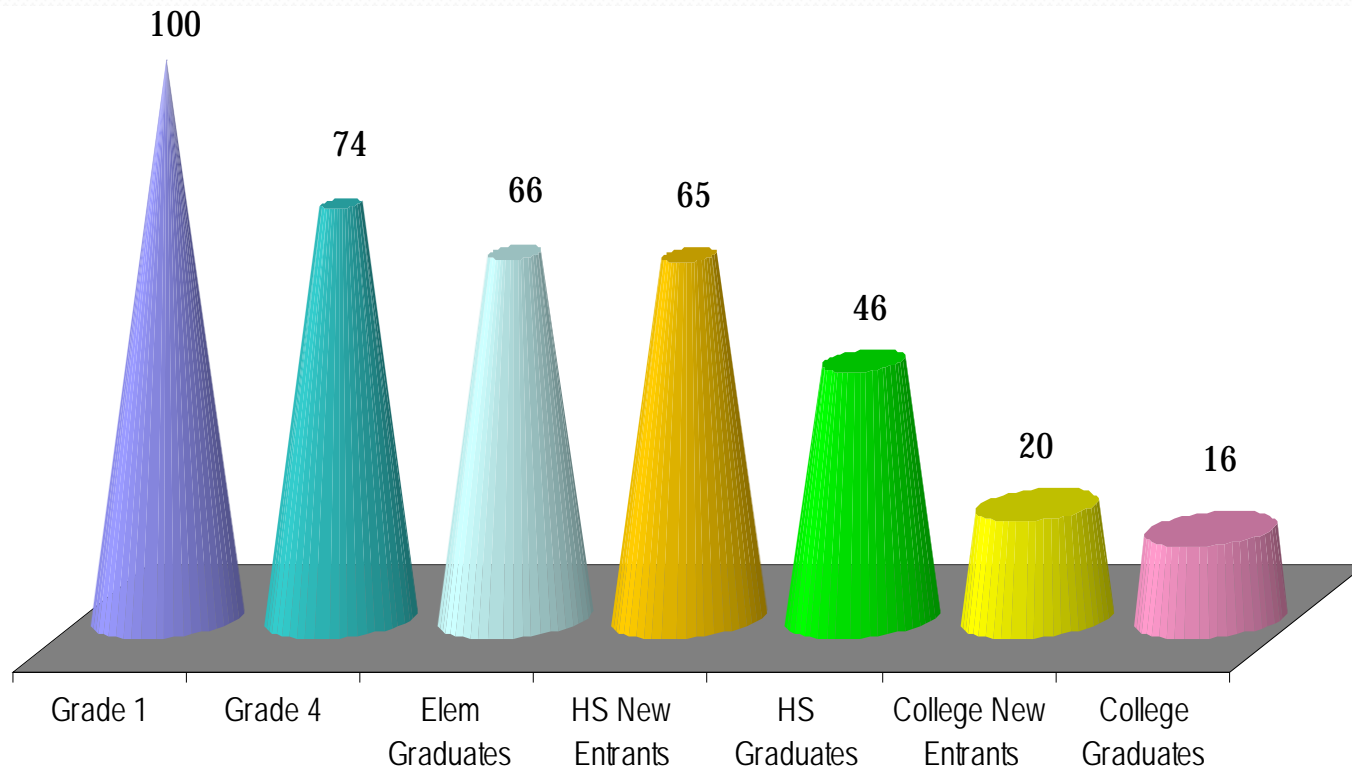
When students are learning poorly, we cannot expect them to be ready for further learning, or for work.

# Typical Progression of a Cohort of Pupils

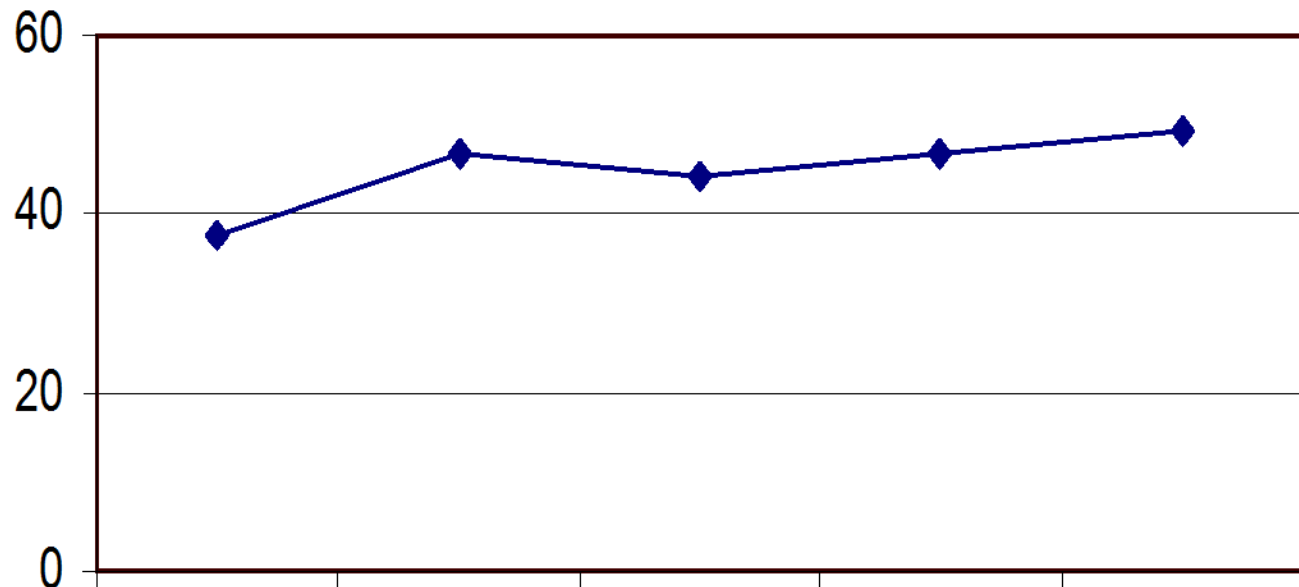
*(based on cohort of Grade I pupils from SY 1995-1996  
to College Graduates SY 2008-2009)*

**Public and Private**

## PHILIPPINES




## NAT MPS Secondary Education Level Philippines



◆ Philippines	37.75	46.8	44.33	46.64	49.26
---------------	-------	------	-------	-------	-------



**The current costs  
of educational failure  
are huge!**



“The youth continued to account for the majority of the unemployed at 49.1% of the total unemployed in 2006. Their unemployment was registered at 17.6% which is more than twice the national unemployment rate and three times the rate of those in the prime working age group of 25-54 years.”  
(DOLE)



**We've been getting poor results  
maybe because we've been doing  
what we've always done.**

**It's time we do things  
differently and better.**

# What we need to do together

If we can strengthen the development in our schools of the most demanded workforce skills: communication, critical thinking, flexibility, problem solving, creativity, and technological fluency,

then we will succeed in preparing our children for work and for lifelong learning.

**We need to strengthen the core curriculum.**





# Strengthening the Core Curriculum

- What should continue?
- What should change?

# What should change?

- **The general tendency among teachers to teach for facts, rather than for thinking**

Results of national and international assessments confirm our students' poor conceptual understanding. Teaching has been too focused on covering the ground.



# What should change?

- Teaching practices that prevent our children from thinking

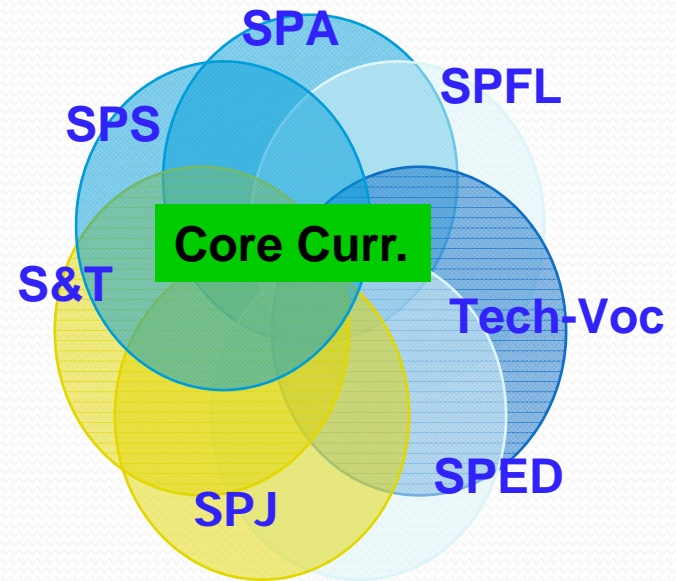
Teachers need to teach for understanding,  
and do it **by design**.

# What should continue (but needs to be taken to a higher level)?

- **Learning as meaning-making**
- **Learning as integrative**
- **Authentic assessment**

# Features of the Curriculum

- Lean- focuses on essential understandings
- Sets high expectations (standards-based)
- Rich and challenging- provides for enrichment programs designed for students' multiple intelligences
- Develops readiness and passion for work and lifelong learning



# The 3-Stage Design of the Curriculum

**First,**

identify desired results;

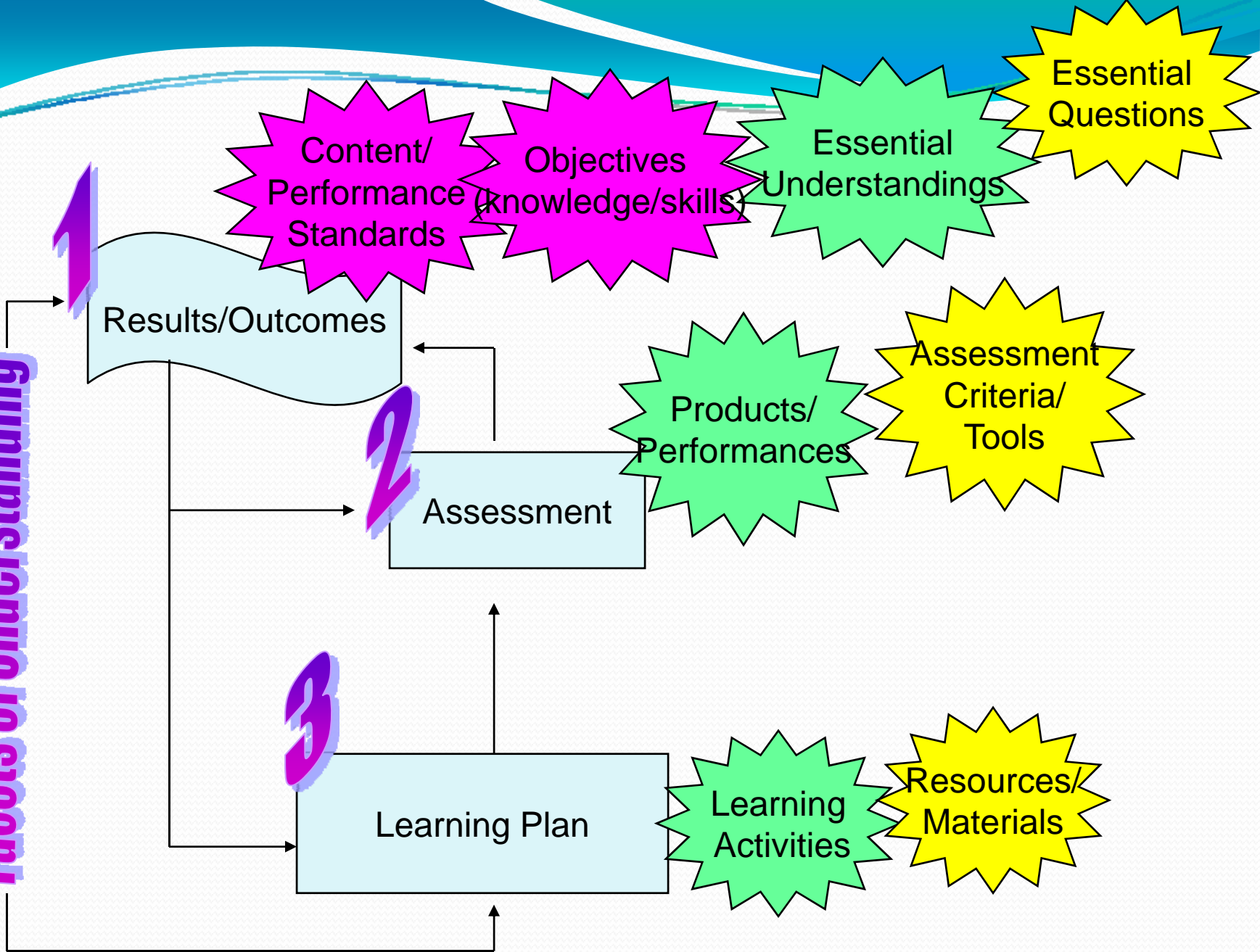
**Next,**

determine acceptable evidence;

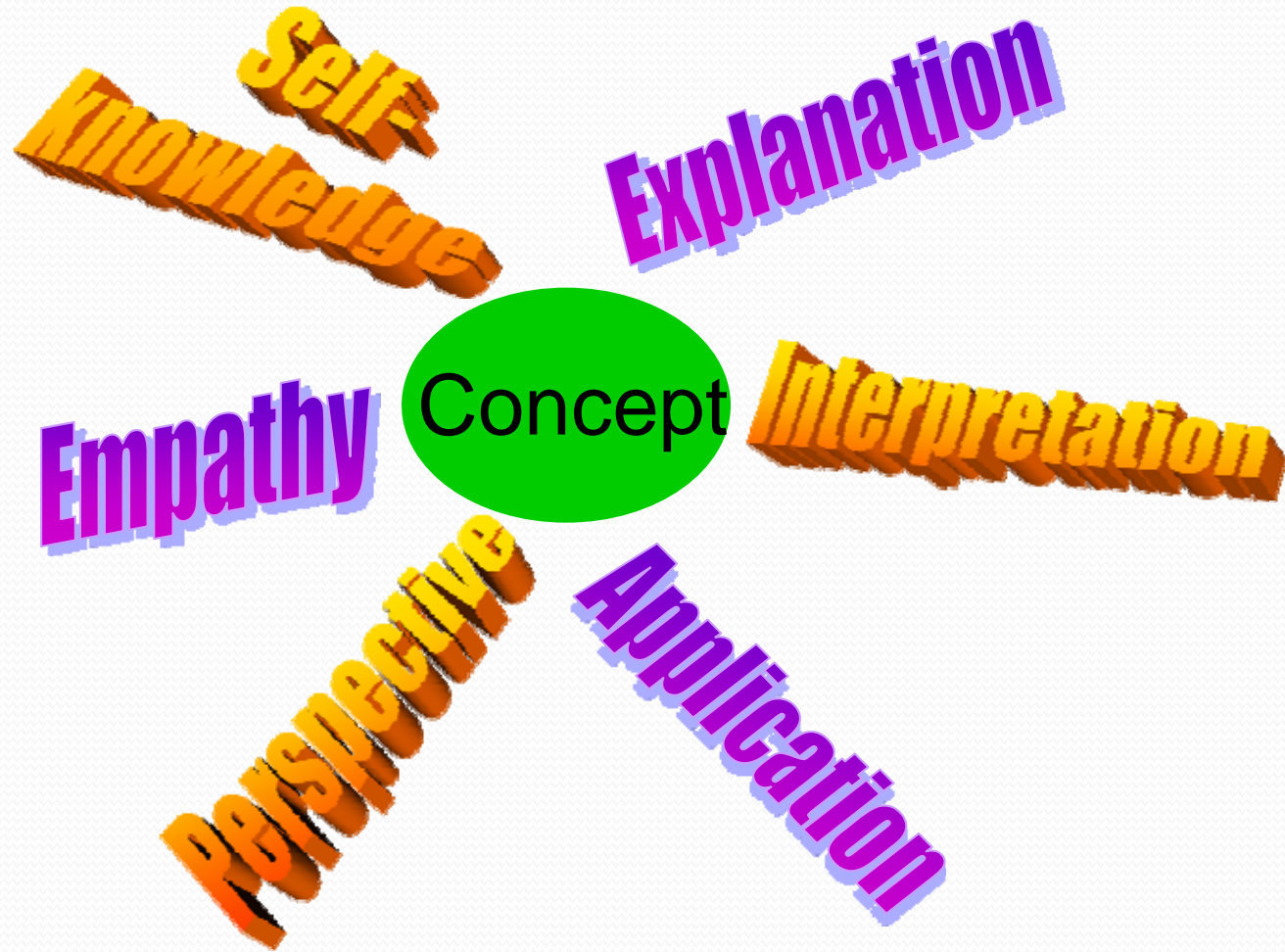
**Then, and only then,**

plan learning experiences and instruction.

# Facets of Understanding



# Facets of Understanding





# Coverage of the Session

- 1 Our curriculum goal
- 2 Assessing our learners' progress
- 3 Planning teaching and learning for understanding

# Our Mission

We need to prepare our children  
for a competitive future.

The future is **NOW!**



# **Our Desired Outcome**

**Functional Literacy for All**

**Effective Communication**  
**Critical Problem Solving**



**Sustainable  
Use of Resources/  
Productivity**

**Development of Self  
and a Sense of Community**

**Expanding  
One's World Vision**

1

# Effective Communication



# Communication Skills

- Ability to clearly express one's ideas and feelings orally and non-verbally
- Ability to listen
- Ability to read, comprehend and respond to ideas presented
- Ability to write clearly one's ideas and feelings
- Ability to access, process and utilize available basic and multimedia information

2

# Critical Problem Solving



# Critical Problem Solving

- Numeracy skills
- Ability to make critical and informed decisions
- Innovativeness and creativity
- Scientific thinking
- Future orientation





**Sustainable Use of Resources/  
Productivity**

# Sustainable Use of Resources/Productivity

- Ability to earn a living
- Sustainable use of resources (including time) and appropriate technology
- Entrepreneurship
- Productivity
- Financial literacy

4

# Development of Self and a Sense of Community



# Development of Self and a Sense of Community

- Self-development: self awareness; self-discipline; sense of responsibility; self-worth; self-realization
- Sense of personal and national identity
- Knowledge of one's history, pride in one's culture and respect for that of others
- Recognition and practice of civil and political rights



# Expanding One's World Vision



# Expanding one's world vision

- Knowledge, acceptance, respect, and appreciation of diversity
- Peace
- Non-violent resolution of conflicts
- Global awareness, interdependence and solidarity



# Unpacking the Desired Outcome

1. Formulating the learning standards
2. Looking for evidence of learning

# Determining Power Standards

- Endurance: does the standard address knowledge and skills that will endure throughout a student's academic career and professional life?
- Leverage: Does it address knowledge and skills that will be of value in multiple content areas?
- Necessity: Does it provide the essential knowledge and skills that students need to succeed in the next grade/year level?  
(Reeves,2005).



Demonstrate  
understanding

Content  
Standards

What students should  
know, understand  
and be able to do

Learning  
Standards

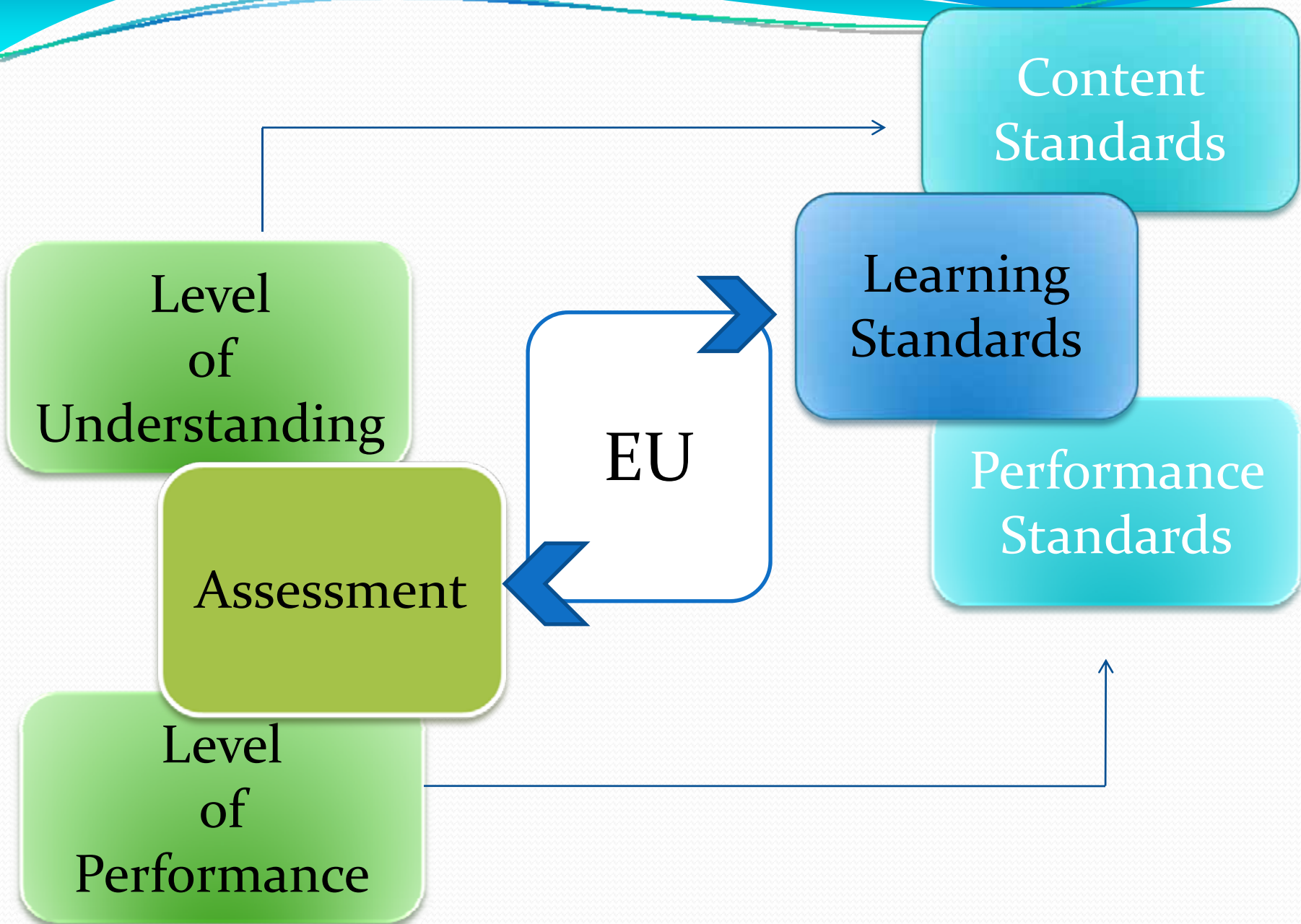
Performance  
Standards

What students should  
create/add value to/  
transfer

EU

Perform  
understanding





# Assessment: Core Processes

- Assess student's readiness for learning for understanding.
- Provide developmentally appropriate interventions to bridge learning gaps.
- Check for understanding; monitor progress. Remediate, if necessary.
- Evaluate performance (transfer skills).



# 2010 SECONDARY EDUCATION CURRICULUM ENGLISH

## First Year Quarter I – Narrative

# General Standard

- The learner demonstrates literary and communicative competence through his/her understanding of the different genres of *Philippine Literature* and other text types for a deeper appreciation of Philippine culture.

# Quarter 1 - NARRATIVE

## Stage 1: Results/Outcomes

Standard		Essential	
Content	Performance	Understanding	Question

The learner demonstrates understanding of the **distinctive features, aesthetic elements and underlying objectives** of varied types of Philippine narratives using the most appropriate language forms and functions.

### ***Language Focus:***

- Simple past tense
- Time markers
- WH Questions
- S-V Agreement
- Direct Discourse
- Reported Speech



## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

Narratives are the interesting accounts of people's ideas, feelings, and values pertinent to the development of their culture and society.



## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

**Why do we study narratives?**

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

**Creative and proficient storytelling**

## Stage 2 : Assessment

Product/ Performance	At the level of	
	Understanding	Performance

### Explanation

Explain the development of events and progress of ideas in a story.

#### ***Criteria:***

Accurate

Coherent

Use of appropriate language forms and functions:

- Simple past Tense
- Time markers
- WH Questions
- S-V Agreement
- Direct Discourse
- Reported Speech

## Stage 2 : Assessment

Product/ Performance	At the level of	
	Understanding	Performance
Express actions that happened at a definite past time Prove that the interesting accounts of people's ideas, feelings and values in Philippine folk narrative are pertinent to the development of their culture and society		

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Interpretation

Share a story showing one's understanding and appreciation of an effective and meaningful literary piece

#### ***Criteria:***

- Significant
- Insightful
- Illuminating

Gather, analyze and present folk narratives with ease

#### ***Criteria:***

- Significant
- Insightful
- Meaningful

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Application

Use appropriate sources of information, multimedia and technology to create a story

#### **Criteria:**

- Adaptive
- Diverse
- Effective

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

Use simple past tense, time markers and WH questions to effectively narrate actions  
Make verbs agree with their subjects  
Exhibit clear reporting of ideas, thoughts and actions using direct and reported speech to avoid ambiguities  
Use reported and direct speech to give accurate accounts of important details

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Perspective

Analyze interdependence of plot characters, theme and other narrative elements

#### ***Criteria:***

- Critical in an analytical sense
- Insightful
- Revealing

### Empathy

Relate ideas discovered from the narrative to real life experiences

#### ***Criteria:***

- Insightful
- Open



## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Self- knowledge

Self assess one's strengths and weaknesses in telling a story effectively

#### **Criteria:**

- Meta-cognition
- Reflective
- Self-adjusting

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

Performance assessment of **storytelling** based on the following criteria:

- Focus/Theme
- Accuracy
- Audience Contact
- Sequence/
- Development of action
- Dialogue
- Language
- Delivery
- Voice



# SCIENCE

## First Year

# Quarter I – Scientific Methods and Space Science

# General Standard

- The learner demonstrates understanding of basic science concepts and processes in an integrative way to solve problems critically, think innovatively/creatively and make informed decisions in order to protect the environment, conserve resources and sustain quality life.

# Quarter 1 – Scientific Methods and Space Science

Stage 1: Results/Outcomes			
Standard		Essential	
Content	Performance	Understanding	Question
The learner demonstrates understanding of scientific methods.			



## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

Scientific methods are valuable when internalized as a process to solve problems in life.





## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

**A community-based science  
investigation using scientific  
methods**

## Stage 2 : Assessment

Product/ Performance	At the level of	
	Understanding	Performance

### EXPLANATION

How is scientific knowledge acquired and validated?

Criteria:

- a. Thorough (explaining all needed steps of scientific methods used until conclusions are reached to generate scientific knowledge; and explaining how results of science investigations are subjected to review and testing of other scientists)
- b. Clear (expressing with clarity scientific thought in oral or written form)
- c. Justifiable ( providing depth and breadth of scientific reasoning)

## Stage 2 : Assessment

Product/  
Performance

At the level of

**Understanding**

Performance

### **INTERPRETATION**

Why is it important to translate the data collected through tables and graphs while using scientific methods?

Criteria:

- a. Meaningful ( giving brief yet substantial discussion on the importance of graphing/ tabulating data while using scientific methods)

## Stage 2 : Assessment

Product/  
Performance

At the level of

**Understanding**

Performance

b. Illustrative (using given graphed or tabulated data to show relationships or connections between organizing or transforming raw data and the provision of a more compact and organized way based on specific purposes; and how relationships or connections can be used in determining patterns and trends)

## Stage 2 : Assessment

Product/ Performance	At the level of	
	Understanding	Performance

### **APPLICATION**

How will you use scientific methods in solving problems at home/community (e.g. Increase of insect pests) considering economic, social, cultural and other factors?

Criteria:

- a. Appropriate (illustrating how scientific methods can be used/ adapted/ customized in solving problems at home or community)
- b. Practical( discussing how scientific methods can be done easily to solve a problem at home or in the community)

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### **PERSPECTIVE**

How are approaches/ procedures of investigations done by some scientists different/ similar from those of others?

Criteria:

- a. Insightful (providing similarities and differences on the approaches/ procedures after considering all situations/ views)

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

- b. Credible (using authoritative sources of information while expounding similarities and differences)
- c. Critical-minded (combining research, knowledge of historical context, and balanced judgment to prove similarities and differences; becoming skeptical of another view point based on very small sample of data; distinguishing between irrelevant and relevant or inaccurate and accurate information, and appropriate and inappropriate analogies)

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### **EMPATHY**

What would it be like to work as a scientist?

Would you emulate scientists the way they develop their attitudes and values while using scientific methods?

Criteria:

- a. Perceptive (recognizing scientific attitudes and values developed by scientists while doing scientific methods)



## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

- b. Open-minded/Receptive (accepting readily/willingly that these scientific attitudes and values must be developed by scientists and oneself)
- c. Sensitive/Responsive (exhibiting how scientists develop scientific attitudes and values while using scientific methods)

## Stage 2 : Assessment

Product/ Performance	At the level of	
	Understanding	Performance

### **SELF-KNOWLEDGE**

Question learners need to ask themselves:  
How can I give my best contribution to the community using scientific methods?

Criteria:

- a. Reflective (becoming aware of one's limitations in applying scientific methods, and of how one's thoughts are influenced/ shaped by these)
- b. Responsive (reacting positively as a result of having scientific methods changed one's view; reacting positively to how the learner can use scientific methods in the community)

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

- c. Efficient ( expounding how time and resources can be used productively, how safety measures can be done throughout the investigation, and how data can be recorded objectively or honestly)
- d. Effective (discussing how the desired/ expected results/outputs can be achieved after using scientific methods)

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

Performance assessment of a science investigation based on the following criteria:

- Community-based
- Using scientific methods

(Please see Attachment 1 for the indicators per criterion)

# 2010 SECONDARY EDUCATION CURRICULUM

CP-TLE (H.E)

Foods and Food Service I

**Q1- Basic Cooking**

**Q2- Cooking Native Delicacies**

**Q3- Baking Breads, Pastries and  
Pies**

**Q4- Baking Cookies and Cakes**



**CP-TLE (H.E)**  
**Foods and Food Service I**

**First Year**  
**Quarter 1 – Basic Cooking**



# General Standard

The learner demonstrates understanding of PECs, the environment and market, and the process and delivery of quality cooked and baked products.

## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

The learner demonstrates understanding of Personal Entrepreneurial Competencies (PECs):

- Characteristics
- Attributes
- Lifestyles
- Skills
- Traits

Analysis and interpretation of PECs by cluster

- Achievement
- Planning
- Power





## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

Successful entrepreneurs, like those engaged in the business of cooking, continuously develop and improve their PECs.

## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

How does one ensure success in a chosen entrepreneurial career, like cooking?

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

**Plan of action, based on PECs,  
addressing one's areas of  
development and areas of strength**

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Explanation

*Describe your PECs focusing on strengths and development areas*

#### **Criteria:**

- Clear
- Comprehensive
- Concise

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Interpretation

*Compare your PECs with those of a successful practitioner*

#### **Criteria:**

- Clear
- Comprehensive
- Concise

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Application

*Apply one's PECs in pursuing a chosen entrepreneurial activity*

#### **Criteria:**

- Appropriate
- Effective
- Practical

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Perspective

Express your thoughts from the viewpoint of a seasoned entrepreneur the importance of PECs

#### ***Criteria:***

- Valid
- Relevant
- Plausible
- Sensitive



## Stage 2 : Assessment

Product/  
Performance

At the level of

**Understanding**

**Performance**

### **Empathy**

Express your feelings if you are an entrepreneur who finds difficulty in coping with the PECs of a chosen career

#### ***Criteria:***

- Open
- Objective
- Sensitive

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Self- knowledge

Assess, based on the results of your PECs, your level of confidence as a prospective entrepreneur in cooking.

#### ***Criteria:***

- Reflective
- Insightful
- Objective

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

Assessment of the plan of action based on the following criteria:

- Comprehensiveness
- Appropriateness of strategies in terms of addressing personal areas of development and improving one's areas of strength
- Doability

## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

The learner demonstrates understanding of the environment and market for cooking as an entrepreneurial career.

Key ideas:

- Consumer needs and wants
- Existing industry related to cooking
- Products/services that satisfy the needs and wants of target customers

Key processes:

SWOT analysis

Opportunity seeking and seizing

## Stage 1: Results/Outcomes

Standard		Essential	
Content	Performance	Understanding	Question

The learner formulates a business idea based on the analysis of the immediate environment and market for cooking as an entrepreneurial career.

## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

The needs and wants of the target market and industry help determine the product to be produced and/or service to be offered.

One's choice of an entrepreneurial activity is influenced by the needs and wants of consumers.

## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

Seeking and responding effectively to a business opportunity are the basis for starting and maintaining a successful business venture.

## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

How does one determine the needs and wants of the target market and industry in the immediate community?

How does one select an entrepreneurial activity to be pursued?



## Stage 1: Results/Outcomes

**Standard**

**Essential**

**Content**

**Performance**

**Understanding**

**Question**

How can one respond effectively to a business opportunity?

## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

**Formulation of a business idea  
based on the analysis of the  
immediate environment and market  
for cooking as an entrepreneurial  
career**

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Explanation

*Explain the importance of the immediate environment and market in identifying business opportunities in cooking.*

#### **Criteria:**

- Clear
- Comprehensive
- Concise
- Coherent

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Interpretation

*Interpret the data gathered from the immediate environment and market in identifying business opportunities in cooking.*

#### **Criteria:**

- Reliable
- Accurate
- Objective
- Relevant
- Valid

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Application

*Generate business ideas from data analysis*

#### **Criteria:**

- Appropriate
- Innovative
- Practical

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Perspective

Express from the point of view of a business owner the importance of scanning the environment and market in generating business ideas.

### ***Criteria:***

- Valid
- Relevant
- Insightful

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Empathy

Express your feelings when entrepreneurs offer the same type of business in a community.

#### ***Criteria:***

- Objective
- Persuasive
- Sensitive
- Open-minded

## Stage 2 : Assessment

Product/  
Performance

At the level of

Understanding

Performance

### Self- knowledge

Self-assess your level of confidence in formulating business ideas.

#### **Criteria:**

- Reflective
- Insightful
- Objective



## Stage 2 : Assessment

**Product/  
Performance**

**At the level of**

**Understanding**

**Performance**

Assessment of formulated business idea based on the following criteria:

- Profitable
- Feasible
- Practical
- Responsive to consumer needs
- Innovative

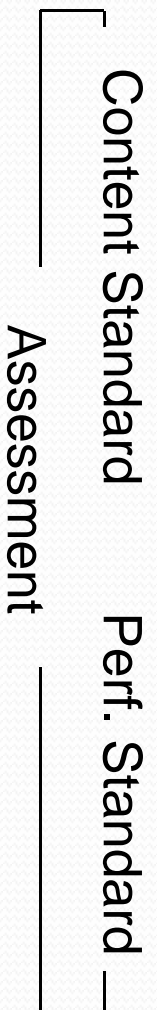
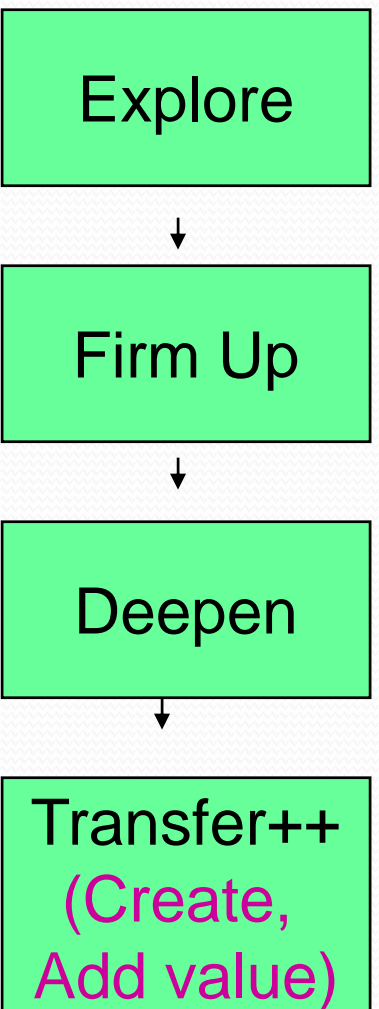


# Instructional Planning

Implementing UBD-based Learning  
Plans

<b>Quarter 1 :</b>	<b>Topic:</b>	<b>Time Frame:</b>
<b>Stage 1</b>		
<b>Content Standard:</b>	<b>Performance Standard:</b>	
<b>Essential Understanding(s):</b>	<b>Essential Question(s):</b>	
Students will know:	Students will be able to do:	
<b>Stage 2</b>		
<b>Product or Performance Task:</b>	<b>Evidence at the level of understanding</b>	<b>Evidence at the level of performance</b>
<b>Stage 3</b>		
<b>Teaching/Learning Sequence:</b>		
<b>Resources (Web sites, Software, etc.)</b>		
<b>Materials/Equipment Needed:</b>		

# UNDERSTANDING



# WHERE TO

# W H E R E T O

**W**- How shall we help students know **where** they're headed and why they're going there? Where is the unit/lesson going? What is expected? In what ways will students be evaluated?

**H**- How shall we **hook** and engage students' interest through thought-provoking experiences at the beginning of each instructional episode?

# W H E R E T O

**E**- What **experiences** shall we provide to help students make their understandings real? How shall we equip them for success throughout the unit or course?

**R**- How shall we cause students to **reflect, revisit, revise, and rethink**?

**E**- How shall students **express** their understandings and engage in meaningful self-evaluation?

# W H E R E T O

**T**- How shall we **tailor** (differentiate) our instruction to address the unique strengths and needs of every learner?

**O**- How shall we **organize** learning experiences so that students move from teacher-guided and concrete activities to independent applications that emphasize growing conceptual understandings?

# Learning/Instructional Plan

## I. Explore

- Diagnose.
- Activate prior knowledge.
- Clarify expectations and how learning shall be assessed: standards; products/performances; criteria, tools.
- Hook and engage student interest.
- Ask EQ; encourage student questions; welcome tentative responses as guide to further exploration.



# Learning/Instructional Plan

## II. Firm Up

- Provide a variety of learning resources (books, videos, readings/documents, web-based resources, etc.) and differentiated activities to validate responses to EQ; process students' meanings and check these against the EU.
- Encourage students to reflect, revise, or rethink their understanding.
- Check for understanding; provide feedback; check against content standard.

# Learning/Instructional Plan

## III. Deepen

- Provide a variety of learning resources and differentiated activities/learning experiences in similar contexts to further validate student understanding.
- Encourage students to reflect, rethink, revise their understanding.
- Have students express their understanding
- Check for mastery of EU; provide feedback; check against content standard.

# Learning/Instructional Plan

## IV. Transfer

- Provide for transfer of learning to a new or different context.
- Evaluate product/performance; check against performance standard.

