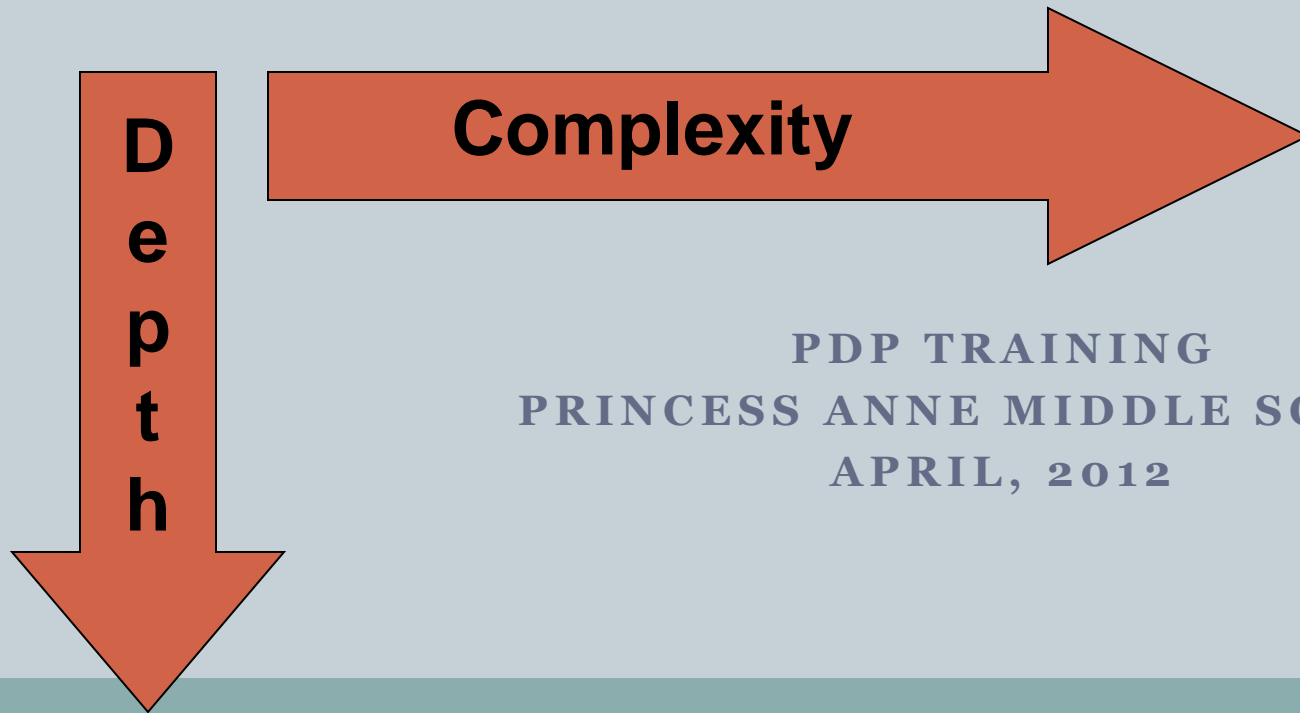


Depth and Complexity:

Creating Respectful Work for Critical Thinking Learners



PDP TRAINING
PRINCESS ANNE MIDDLE SCHOOL
APRIL, 2012

Think like a _____ or one who



**Apply or use
the language of
the disciplinarian
to describe your
study**

**Ex. dates/periods
cause/effect
facts/opinions
places/people
events/issues**

**Use these
products of the
disciplinarian**

**Books, artifacts,
Professional
journals,
references**

**Timeline, charts,
tables, maps,
internet articles**

**Primary sources,
letters, diaries,
visuals, etc.**

Thus we have
a frame work
for depth and
complexity

**Skills and Habits of Mind used by
someone who is successful in this
discipline:**

Frames of the Discipline



Accountant
Astronomer
Computer Programmer
Editor
Environmentalist
Geneticist
Historian
Journalist
Mathematician
Microbiologist
Philosopher
Poet
Publisher
Toxicologist

Anthropologist
Biologist
Ecologist
Electrician
Epidemiologist
Geographer
Immunologist
Lawyer
Mayor
Oceanographer
Physicist
Psychologist
Sociologist
Virologist

Architect
Chemist
Economist
Engineer
FBI Agent
Geologist
Interior Designer
Marine Biologist
Meteorologist
Pathologist
Political Scientist
Public Speaker
Statistician
Zoologist

Think like a deep thinker, or one who.....

This would be the terminology we would use to talk about thinking:

A deep thinker produces these “end products”:

Thus we
have a frame
work for
depth and
complexity

Skills and Habits of Mind used by a deep thinker include:

Goals for Today's Session



- Describe what “deep thinking” looks like
- Analyze how to add depth and complexity focus to your students’ learning activities
- Understand how to use Depth and Complexity icons to differentiate for different levels of instruction

off the mark

www.offthemark.com

by Mark Parisi



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Find Someone Who

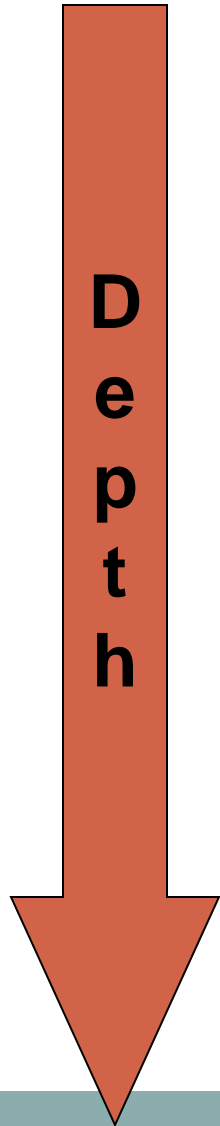


- Find Someone Who activity—
 - Find several different “someones” in the room who are able to do the activities on the sheet.
 - Make them demonstrate their knowledge or skill.
 - No one may sign more than two of your boxes.
 - When the song is finished, please return to your seats.

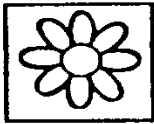
http://www.youtube.com/watch?v=34z5DGZMf_s

What else can you add
to your
Frame of the Discipline
of a Deep Thinker?

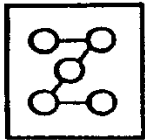
Dimensions of Depth and Complexity



Language of
the Discipline



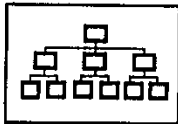
Details



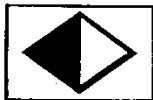
Patterns



Trends



Rules



Ethics



Big Ideas



Over
Time



multiple
perspectives

Points
of View



across disciplines

Across
Disciplines

- Can be used in all disciplines
- Built with levels that take students deeper into the discipline
- Icons are used to prompt each level of depth and complexity
- Over time students will go deeper and gain a greater understanding of the content they are studying

Match ‘em Up

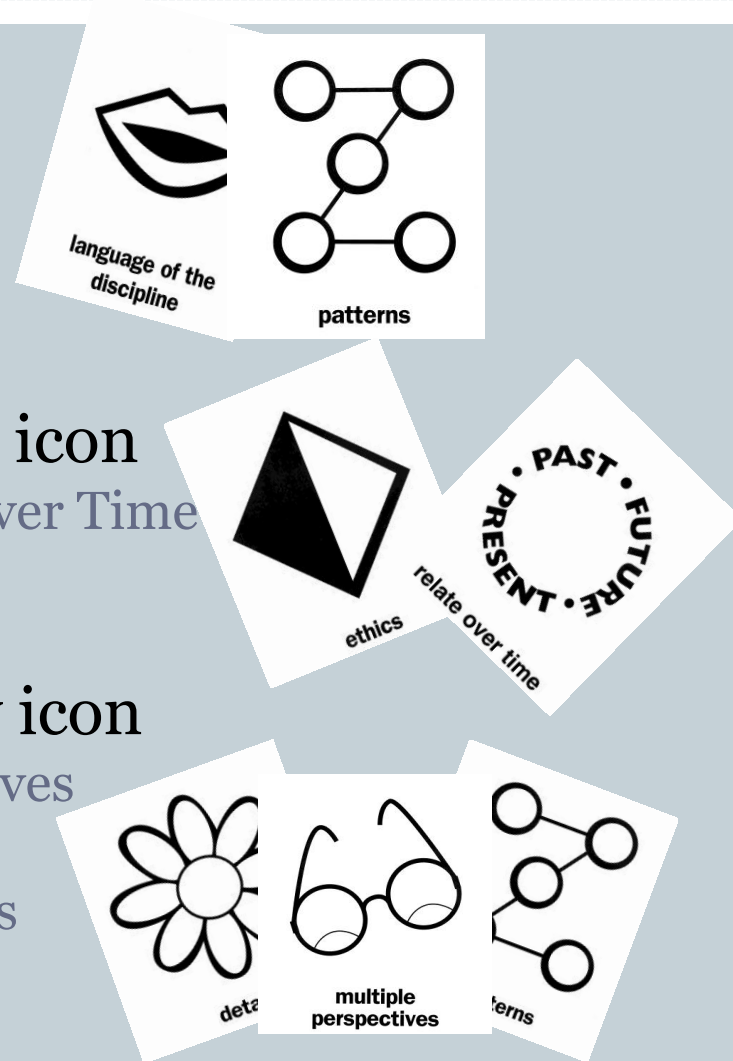


- **Materials needed:**
 - People Search
 - Pen
 - Packet of Depth and Complexity Icon Cards
- **Think-Pair-Share**
 - Use the packet of Depth and Complexity cards and their descriptions and decide which icons go with which activities in the boxes. Draw the icon(s) in the boxes.
 - Pair up with someone and share your findings.
 - What is an “unanswered question” that you have?

How to Use These



- As single icons
- Overlap 2 Depth icons
 - Big Ideas and Details
 - Language of the Discipline and Patterns
 - Ethics and Unanswered Questions
- Overlap a Depth and a Complexity icon
 - Language of the Discipline and Relate Over Time
 - Ethics and Multiple Perspectives
 - Patterns and Across Disciplines
- Overlap 2 Depth and a Complexity icon
 - Details, Patterns, and Multiple Perspectives
 - Details, Rules, and Relate over Time
 - Trends, Big Ideas, and Across Disciplines



Let's Try This Out



- **Materials needed:**
 - Your Depth and Complexity icon cards
 - “The Big Wait” article from Educational Leadership
 - A pen
- **Listen as I read the introduction to you.**
 - What are the “Big Ideas” that this article might be about?

Choose two...Read and Justify...



- The Teenage Twilight Zone
 - Trends
- Making Adolescence More Adult
 - Patterns
- Relevance
 - Rules
- Real-World Feedback
 - Multiple Perspectives
- Responsibility
 - Trends
- Respect
 - Language of the Discipline
- Water for the Thirsty
 - Details

With a partner, choose four of the sections listed on the left—two for you and two for your partner.

Read your sections focusing on the D/C icon. Make any notes as needed.

Share the technique and your findings with your partner when the music finishes.

<http://www.youtube.com/watch?v=l-dYNttdgl0&feature=related>

EXIT TICKET: DEPTH AND COMPLEXITY

Name_____ Date_____

1. What is something from today's workshop that you think you will definitely think about after spring break?
2. Which icons do you see as being particularly relevant to your content?
3. Which icons do you think your students would struggle with? Why?
4. What additional information or support do you think you might need to implement this model into your units?

**D
e
p
t
h**

Complexity

Depth and Complexity Slides



**ADDITIONAL EXPLANATIONS AND EXAMPLES
OF USING THE ICON IN A CONTENT AREA**



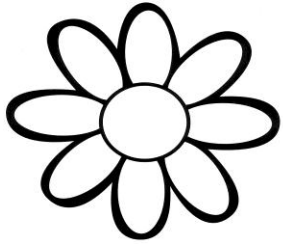
language of the
discipline

Language of the Discipline

Language of the Discipline—use of vocabulary (terms/ symbols) that experts in the discipline use to describe/discuss events, issues, change, pattern, questioning, etc.

Example:

Historians might use terms like “underlying causes” to describe long-term causes of a specific event like war or “immediate causes” or “turning point” to explain a central event leading to shift in a trend of occurrences.



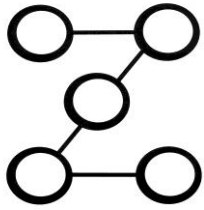
details

Details

Details are facts which expanded upon by giving evidence and specific examples that support the facts.

- Example

- American cities grew during the late 19th century.
 - cities developed along major transportation routes
 - local and federal govt. gave railroads subsidies of land & money
 - railroads advertised sale of land that drew immigrants from Europe
 - most immigrants settled in cities because of the availability of jobs
 - new cities included Chicago, St Louis, San Francisco, etc.
 - transcontinental railroads were built, no longer dependent only waterways
 - migration from rural to urban
- industrial growth provided jobs in urban areas

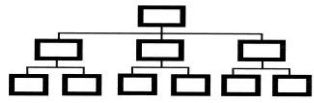


patterns

Patterns

Patterns- regular or repetitive forms, orders, or arrangements; a predictable pattern of behavior or design.

- Example: By reading primary and secondary documents we see that following events took place in most cases in different regions of the country during that time period. What are the **re-occurring events** in the growth of cities?
 - land grants from government given to railroads
 - railroads companies lay track
 - companies advertise to sell off adjacent lands
 - individuals and businesses looking for new opportunity purchase and settle lands creating jobs leading to further settlement

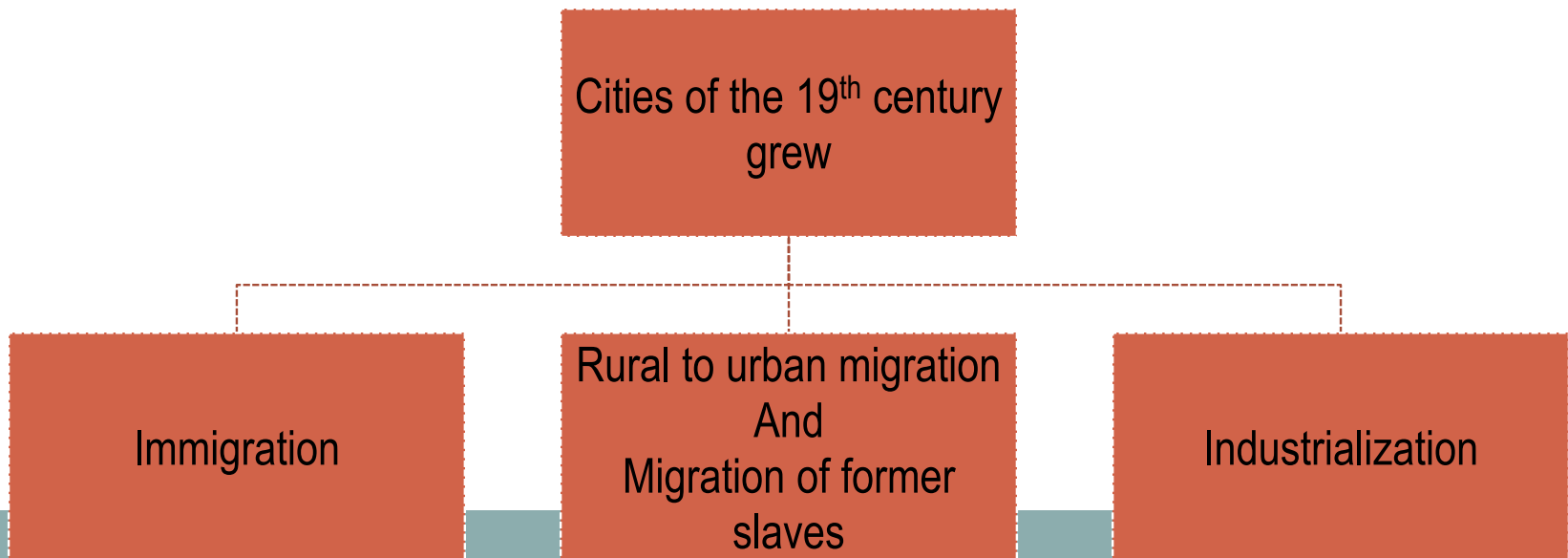


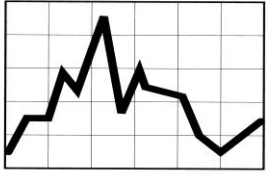
rules

Rules

Rules--The elements of this topic, concept, or discipline that are consistent and universally accepted by disciplinarians in the field.

- Example: Based on information written by recognized historians in journals and essays, a consensus is--





trends

Trends

Trends—a general tendency, movement, or direction; on-going and significant factors that influence a topic, concept or discipline.

- Example: What **contributing factors** lead to the growth of cities in the 19th century?

By observing and interpreting data from maps, charts, graphs and tables we determine where most cities were located.

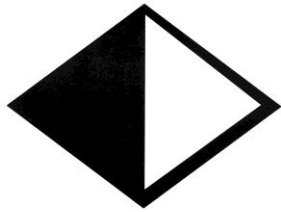
- along transportation routes
- near deposits of natural resources
- near major industries
- migration from rural areas increased to cities
- immigration from Europe increases and immigrants generally settled in cities



unanswered
questions

Unanswered Questions

- **Unanswered questions: What questions are the disciplinarians in this field grappling with today?**
- **Example: In what ways might the information on the growth of cities be lacking?**
 - Issues not addressed in the growth of cities during the 19th century thus far
 - How were these cities governed?
 - What were living conditions in cities like?

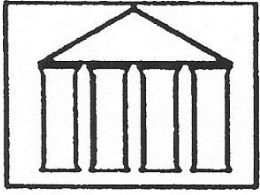


ethics

Ethics

Ethics—the study of moral standards and how they affect conduct; a system of moral principles governing the appropriate conduct for a person or group

- **Examples:**
 - Did cities of the 19th century offer a better quality of life than rural areas?
 - In your view, did the governor anything in his treatment of the Native Americans in his state that was morally wrong?



Big Ideas

Big ideas--a generalization that flows directly from the study that is always true (yesterday, today and in the future).

- **Example:**
 - People move to new locations to meet economic and/or social needs.

Complexity



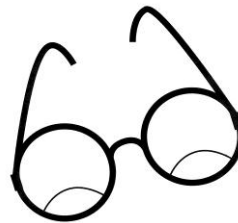
Over
Time

Points of
View

Inter-
disciplinary

A circular diagram with the words 'PAST', 'FUTURE', and 'PRESENT' arranged in a circle, separated by dots. The text is in a bold, sans-serif font.

relate over time



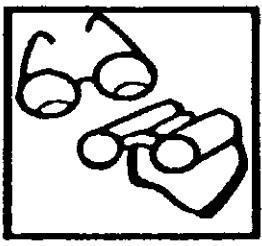
multiple
perspectives



across disciplines

Over Time

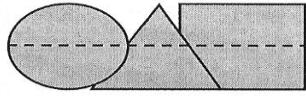
- **How are the ideas related from the past, present, to the future?**
- **How are the ideas related within or during a particular time period?**
- **How has time affected the topic, concept, discipline?**
- **How and why do things change or remain the same?**



Points of View



- **What are the multiple perspectives on the topic, concept, discipline?**
- **How do different perspectives shape the topic, concept, discipline?**



Interdisciplinary



- **What are the common elements among the topics from different disciplines?**
- **How does this idea relate to all of these topics across disciplines?**
- **How do each of these topics across the disciplines contribute meaning to this idea?**