



Dimensions of Depth and Complexity

By Language Services and
Student Programs



Great ideas
need landing
gear as well as
wings

Developing appropriately challenging curriculum for all students



- Clear focus
- Providing opportunities for in-depth learning
- Organized
- Coherent
- Engaging
- Using old learning with new one
- Joyful/satisfying
- Choices
- Meaningful collaboration
- Products that matter
- Connections with real life
- Fresh
- Real, purposeful
- Rich
- Profound
- Problem solving
- Setting goals
- Stretches the student

The Power of the Teacher as Curriculum Decision Maker



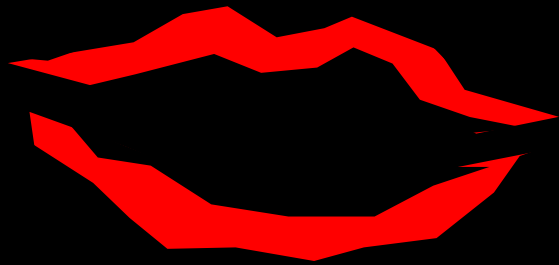
- The teacher has the power to:
 - Differentiate content
 - Differentiate process
 - Differentiate product

Dimensions of Depth and Complexity



- The following icons are designed to facilitate the understanding of depth and complexity within content at different levels of sophistication
- These icons should be introduced one at a time
- Once various dimensions are learned by the students, the icons can be combined to extend the depth of their learning

Language of the Disciplines



Key Questions

- What terms or words are specific to the work of the ____ (disciplinarian)?
- What tools does the ____ (disciplinarian) use?

Looking at Depth:

- Specialized vocabulary
- Skills and tasks specific to the discipline
- Tools used
- Benefit to society

Examples

- Describe the causes and effects of a historical event using the language of a sociologist, such as a group organization, group interaction, and group socioeconomic factors. (Social Studies)

Details



Looking at Depth:

- Elaboration
- Identify attributes
- Parts
- Factors

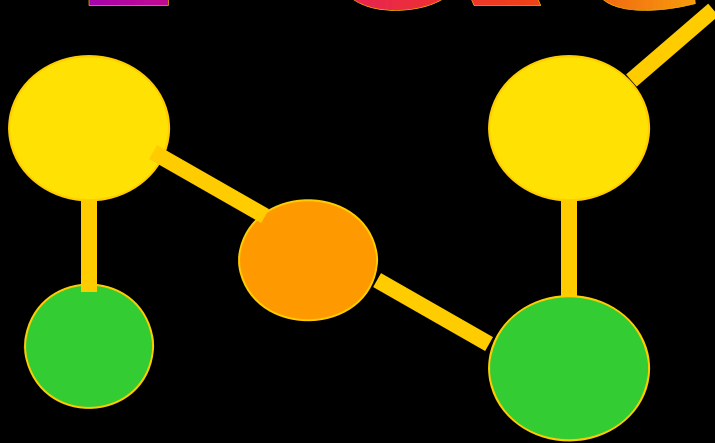
Key Questions

- What are its attributes?
- What features characterize this?
- What specific elements define this?
- What distinguishes this from other things?

Examples

- Describe the many and varied details that relate to this event in History. (Social Studies)
- State the details affecting the operations needed to solve this problem. (Math)

Patterns



Looking at Depth:

- Identify reoccurring elements or events
- Determine the order of events
- Predict what comes next

Key Questions

- What are the recurring events?
- What elements, events, ideas, are expected overtime?
- What was the order of events?
- How can we predict what will come next?

Examples

- Describe the patterns of erosion. (Science)
- Provide evidence to substantiate the pattern(s) of the characters' behaviors. (Language Arts)

Trends



Key Questions

- What ongoing factors have influenced this study?
- What factors have contributed to this study?

Looking at Depth:

- Note factors that cause events to occur
 - Social
 - Political
 - Economic
 - Geographic
- Identify patterns of change over time

Examples

- Describe the changes in communication over time.
- Identify trends in the characters' behaviors.

Unanswered Questions



Key Questions

- What is still not understood about this area/topic/study/discipline?
- What is yet unknown about this area/logic/discipline?
- In what ways is the information incomplete or lacking in explanation?

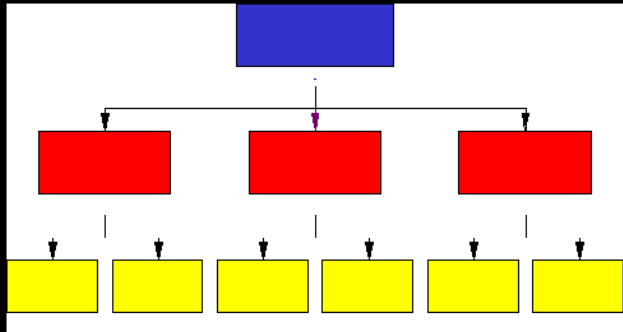
Looking at Depth:

- Identify unclear ideas or missing information
- Discuss areas yet to be explored or proven
- Note conclusions that need further evidence or support

Examples

- Is global warming fact or fiction?
- Is war the solution for peace?

Rules



Key Questions

- How is this structured?
- What are the stated and unstated causes related to the description or explanation of what we are studying?

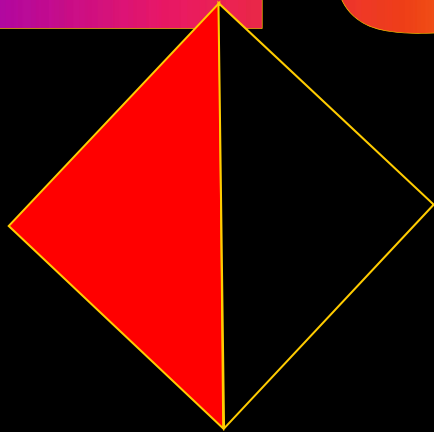
Looking at Depth:

- State the explicit or implicit factors that govern an area of study
- The structure
- The order
- The hierarchy
- The elements that set the standards

Examples

- Describe the implicit and explicit rules of the water cycle. (Science)
- Define the consequences of the intended and unintended rules governing the behavior of the major characters. (Language Arts)

Ethics



Looking at Depth:

- Identify value laden ideas
- Determine elements that reflect bias, prejudice, discrimination
- State pro and con arguments in terms of ethics

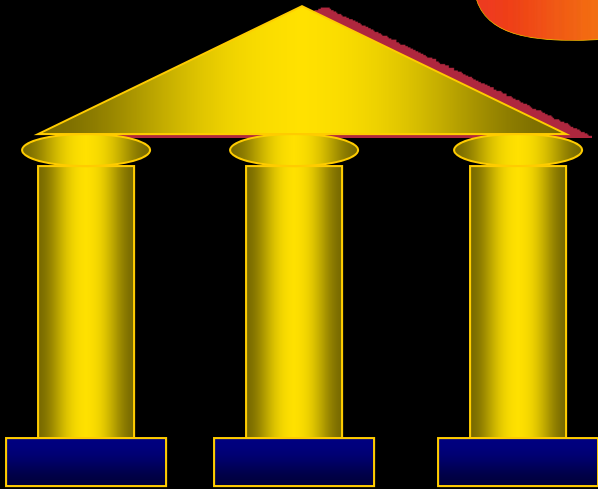
Key Questions

- What dilemmas or controversies are involved in this area/topic/study/discipline?
- What elements can be identified that reflect bias, prejudice, and discrimination?

Examples

- How those the ethics of the character define who he is?
- Explore the rules (if any) that media follows to get a story?

Big Idea



Looking at Depth:

- Identify a rule or general statement that summarizes information or draws a conclusion based on evidence drawn from a collection of facts or ideas

Key Questions

- What overarching statement best describes what is being studied?
- What general statement includes what is being studied?

Examples

- Define the meaning of the statement "change is inevitable" by studying changes in the environment, government, and portrayal of a character in a story.

Over Time



Looking at Complexity:

- Describe relationships between past, present and future
- Describe relationships within a time period
- Explain how or why things changed or remained the same

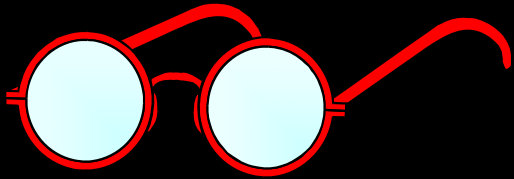
Key Questions

- How are the ideas related between the past, present, future?
- How are these ideas related within or during a particular time period?
- How has time affected the information?
- How and why do things change or remain the same?

Examples

- Compare changes in life styles from the time of your parents' teenage years to the teenagers of today.
- Make a timeline of the history of the United States.

Multiple Perspectives



Key Questions

- What are the opposing viewpoints?
- How do different people and characters see this event or situation?

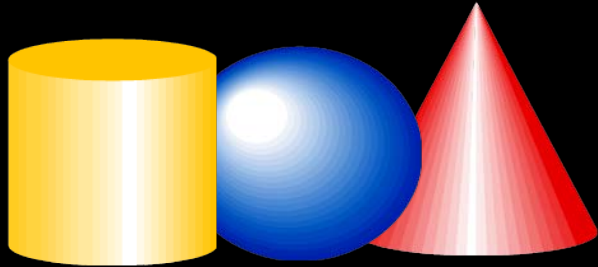
Looking at Complexity:

- Discuss multiple perspectives related to an area of study
- Explore opposing viewpoints (pros & cons)
- Reflect on advantages of diversity within a society

Examples

- Analyze the pros and cons of sweet drinks being sold at school.
- What are mathematicians' viewpoints on the metric system versus the standard system of measurement?

Across Disciplines



Key Questions


- How do experts in a discipline learn from experts in other disciplines?
- How do different people and characters see this event or situation?

Looking at Complexity:

- Relate/integrate the area of study to include the methodology of other disciplines.
- Describe a topic's place in more than one discipline or subject area.

Examples

- How is human behavior expressed through music and history?
- How has history affected art over time?
- How has technology affected literature?



Applications of these
dimensions to the content
of a lesson or unit of study
modify the content to more
appropriately challenge
gifted and advanced
students to develop a
deeper, more complex, and
extensive understanding of
subject matter

(Educator to Educator 2003)