An Introduction and Overview of the Parallel Curriculum Model
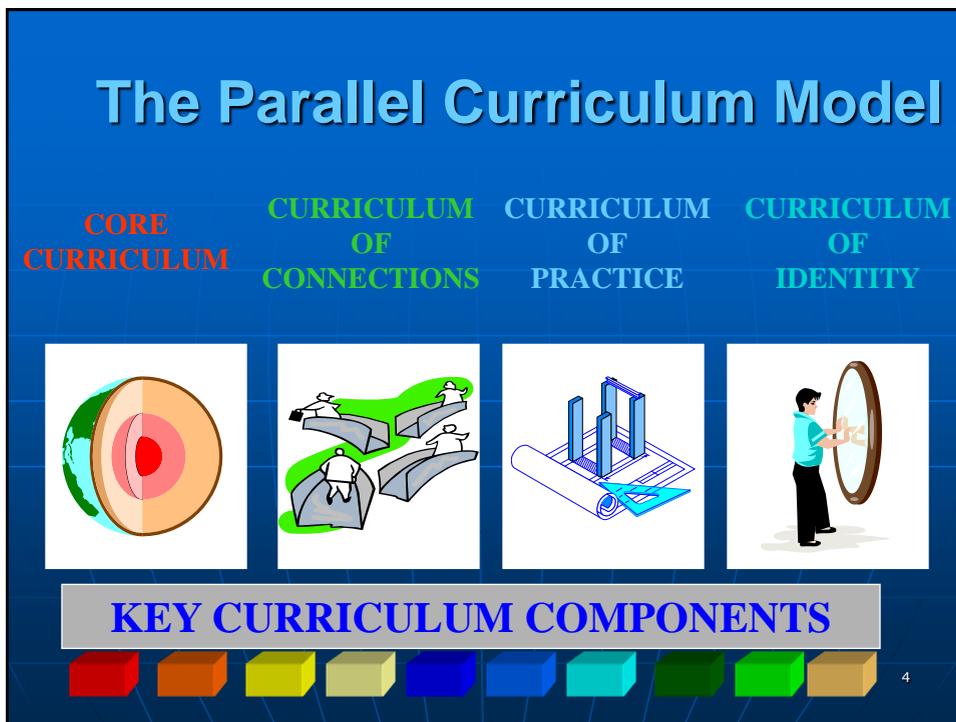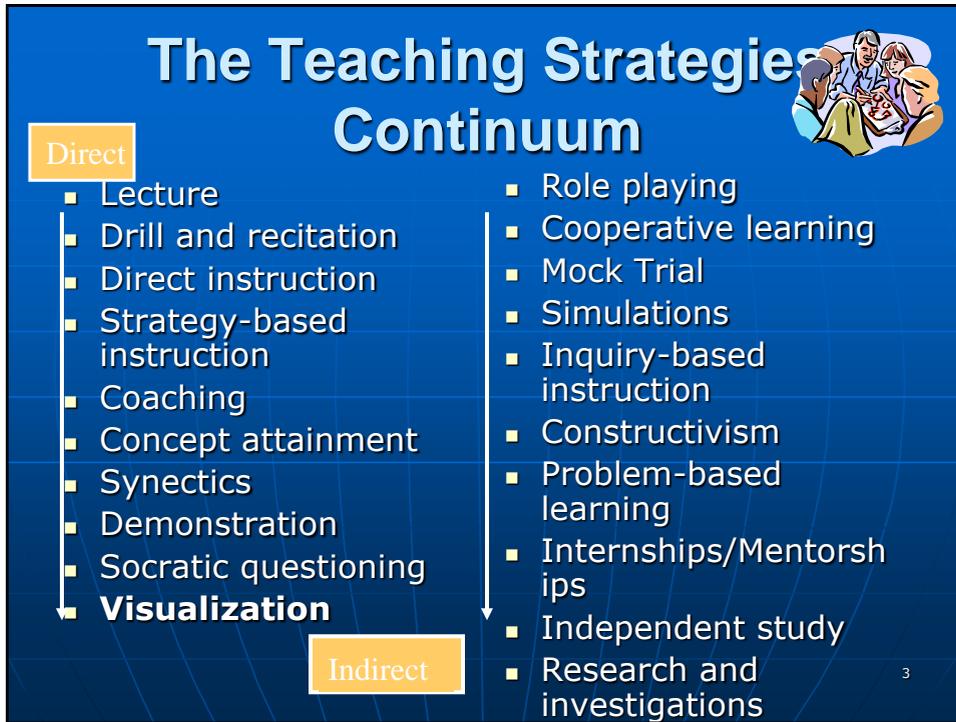
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What are the ten components of a comprehensive curriculum unit, lesson, or task?

- Content
- Assessment
- Introduction
- Teaching Strategies
- Learning Activities

- Grouping Strategies
- Products
- Resources
- Extension Activities
- Modification (Ascending Levels of Intellectual Demand)

2

The Teaching Strategies Continuum

Direct

- Lecture
- Drill and recitation
- Direct instruction
- Strategy-based instruction
- Coaching
- Concept attainment
- Synectics
- Demonstration
- Socratic questioning
- **Visualization**

Indirect

- Role playing
- Cooperative learning
- Mock Trial
- Simulations
- Inquiry-based instruction
- Constructivism
- Problem-based learning
- Internships/Mentorships
- Independent study
- Research and investigations

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The Parallel Curriculum Model

CORE CURRICULUM	CURRICULUM OF CONNECTIONS	CURRICULUM OF PRACTICE	CURRICULUM OF IDENTITY

KEY CURRICULUM COMPONENTS

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Ascending Levels of Intellectual Demand Take Into Consideration Students' …….

- Cognitive abilities
- Prior knowledge
- Schema
- Opportunities to learn
- Learning rate
- Developmental differenc
- Levels of abstraction

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Ascending Levels of Intellectual Demand

- Vary the depth
- Adjust the abstraction
- Change the complexity
- Make contexts and examples more or less novel or familiar
- Adjust the pace
- Use more/less advanced materials and text
- Provide more/less scaffolding
- Provide frequent/intermittent feedback
- Provide/let students infer related strategies

- Provide more/fewer examples
- Be more/less explicit/inductive
- Provide simpler/more complex problems and applications
- Vary the sophistication level
- Provide lengthier/briefer texts
- Provide more/less text support
- Require more/less independence or collaboration
- Require more/less

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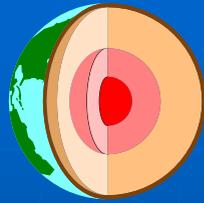
The Core Curriculum: Definition

The Core Curriculum addresses the **core concepts, principles, and skills of a discipline**. It is designed to help students understand essential, discipline-based content through the use of **representative topics, inductive teaching, and analytic learning activities**.
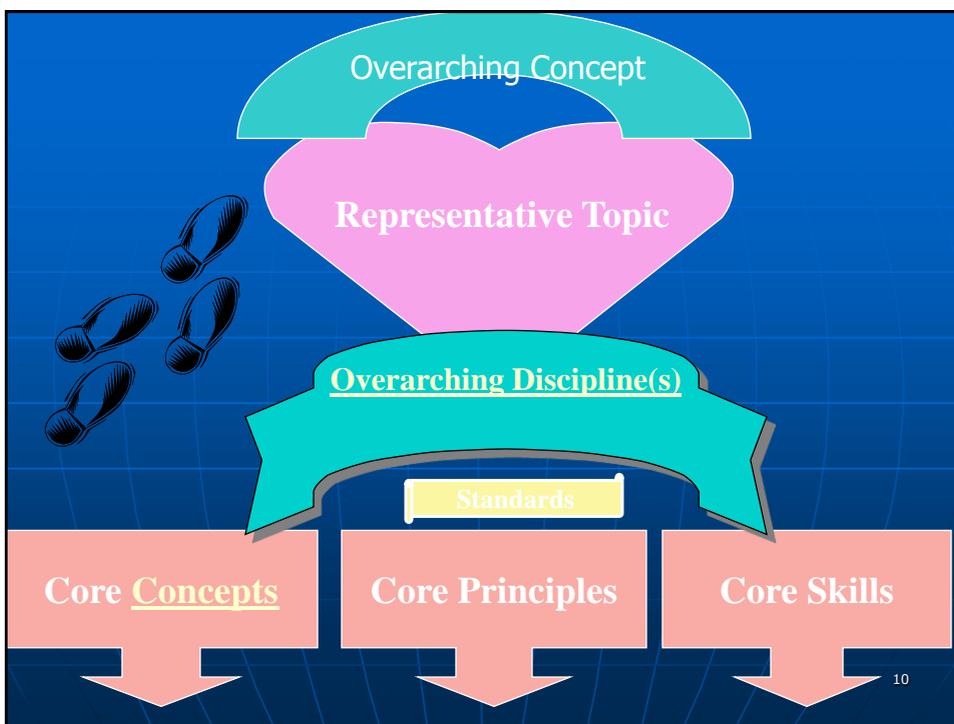
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Examples of Conceptual Knowledge

- Planet
- Constellation
- State Capitals
- Government
- Nutrition
- Transportation
- Conflict
- Horizon
- Symmetry

- Balance
- Irony
- Emergency
- Science Fiction
- Addition
- Octagon
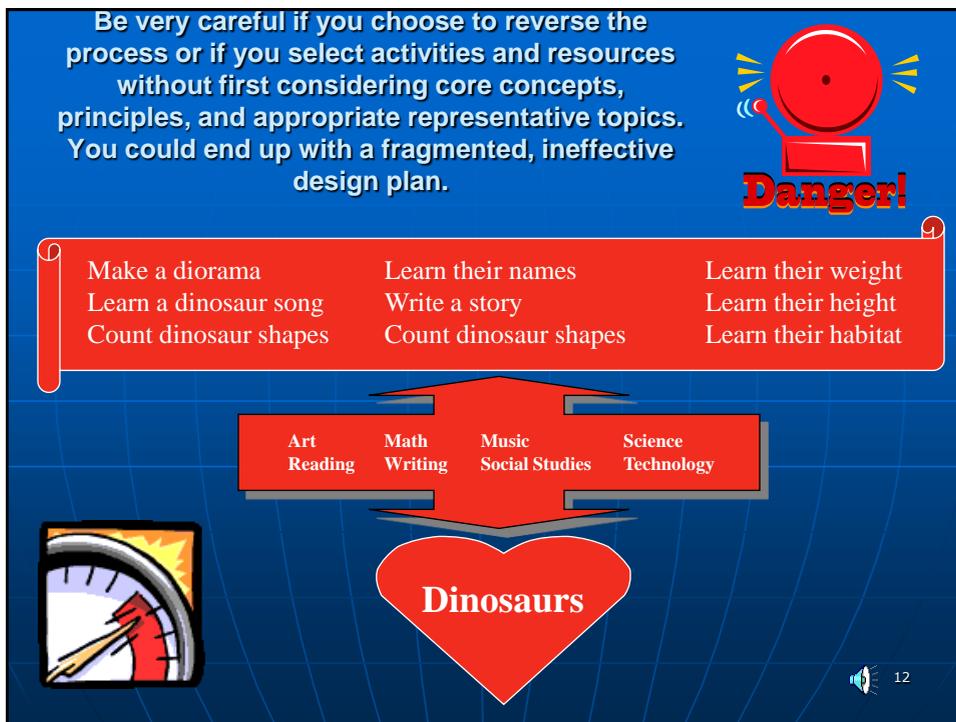- Force
- Gravity
- Precipitation

What makes a principle a ⭐ principle?

- Explains a relationship
- Explains how things work
- Explains why something is important
- Axiom, proverb, rule
- Truth, law, rule
- Generalization
- Reasons
- Influences

- If/then (air pressure and storms)
- So what?
- Cause/effect (location, location, location)
- Part/whole
- More/less (supply and demand)
- Simple/complex
- Now/then

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Overarching Concept

Representative Topic

Overarching Discipline(s)

Standards

Core Concepts   **Core Principles**   **Core Skills**

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Slide 11

Change

Dinosaurs

Grade 1

A District Example

Paleontology   Ecology
Herpetology   Botany
Ornithology   Physiology

Standards

Species	Structure (form)
Adaptation	Herbivore
Evolution	Survival
Extinction	Carnivore
Function	Dinosaur

Adaptation is essential to survival.
Species are interdependent.
Form follows function.
Living things may become extinct

Pattern finding
Observation
Notetaking
Classifying
Categorizing
Comparing and contrasting
Making inferences

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Slide 12

Be very careful if you choose to reverse the process or if you select activities and resources without first considering core concepts, principles, and appropriate representative topics. You could end up with a fragmented, ineffective design plan.

Danger!

Make a diorama	Learn their names	Learn their weight
Learn a dinosaur song	Write a story	Learn their height
Count dinosaur shapes	Count dinosaur shapes	Learn their habitat

Art   Math   Music   Science
Reading   Writing   Social Studies   Technology

Dinosaurs

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The Curriculum of Connections: Definition

The Curriculum of Connections is a plan that includes guidelines and procedures to help students connect overarching concepts, principles, and skills within and across disciplines, time periods, cultures, places, and/or events.

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What kind of connections are we talking about?

- Connections across time, events, topics, disciplines, cultures, and perspectives
- Connections to self, other texts, and other people
- Understanding of intra and interdisciplinary macroconcepts
- Understanding of intradisciplinary generalizations
- Understanding of interdisciplinary themes

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A Connections Example…
Grade 11 AP History

Content Knowledge	Civil Rights – Lincoln and L.B. Johnson comparison
Assessment	Comparative essay – defend a thesis statement
Introduction	Role of the historian
Teaching Methods	Conferencing
Learning Activities	Notetaking, comparing and contrasting, point of view, evidence analysis
Resources	Multiple biographies,
Products	Notecards, graphic organizers, thesis
Grouping	Individual and partners
Extensions	Publication opportunities
Ascending Levels	Additional leaders
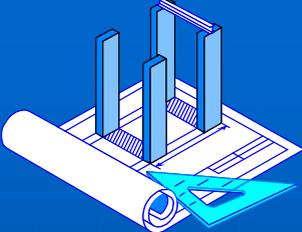
The Curriculum of Practice: Definition

The Curriculum of Practice includes a set of guidelines and procedures to help students understand, use, generalize, and transfer essential knowledge, understandings, and skills in a field to authentic questions, practices, and problems. This parallel is designed to help students function with increasing skill and competency as a researcher, creator, producer, problem solver, or practitioner in a field.

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What is meant by the Curriculum of Practice?

- Real world applications
- Practitioner
- Problem solver
- Researcher
- Creator
- Producer

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A Practice Example…
Grade 4 Meteorology

Content Knowledge	How accurate are weather forecasts?
Assessment	Weather predictions
Introduction	James Spann– guest speaker
Teaching Methods	Inductive – controlled experiment
Learning Activities	Collecting data, analyzing data, finding patterns, making predictions, judging accuracy, making inferences
Resources	4th and 5th day forecasts from radio, TV, newspaper, and weather instruments
Products	Graphs, charts, predictions
Grouping	Small group
Extensions	2 and 3 day forecasts
Ascending Levels	Various regions of the country

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The Curriculum of Identity: Definition

The Curriculum of Identity is a a set of guidelines and procedures to assist students in reflecting upon the relationship between the skills and ideas in a discipline and their own lives, personal growth, and development. This parallel is designed to help students explore and participate in a discipline or field as it relates to their own interests, goals, and strengths, both now and in the future.

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The Identity Parallel

- Emphasizes the role of the individual within a content area
- Provides opportunities for self exploration
- Supports an individual's search for affinity, affiliation, and knowledge of self
- Offers a sequential plan to address increasing levels of interest and commitment to a field

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An Identity Example…
Grade 10 Math

Content Knowledge	Personal development – enhanced attitudes toward mathematics
Assessment	Attitudes survey, learner profile, reflective journal
Introduction	Math professor and former students as guest speakers- math phobia
Teaching Methods	Independent reading, conferencing, small group discussion, Socratic questioning, contract
Learning Activities	Reading, comparing and contrasting, point of view,
Resources	Billions and Billions, Contact
Products	Reader Response
Grouping	Individual
Extensions	A Brief History of Time, Math Curse
Ascending Levels	Math review course

Problem-Based Learning Scenarios

- *You have been hired by Arnold Schwarzeneggar to run his political campaign for governor of Virginia. Since you have so little time until the October 7 special election to prepare your candidate on the issues, you have decided to survey a random sample of citizens from around the state. Design a political questionnaire, with descriptions of the major issues, that will inform your candidate on the temperature of the body politic. Find an appropriate sample, generate a visual representation, and present your findings to Arnold's campaign staff. Help your candidate place himself on the political spectrum and define his ideology. Can your candidate win the White House someday? Why/not?*

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Problem-Based Learning Scenarios

- *You have been hired by Arnold Schwarzeneggar to run his political campaign for governor of Virginia. Since you have so little time until the October 7 special election to prepare your candidate on the issues, you have decided to survey a sample of your neighbors. Design a questionnaire (5-10 questions), with descriptions of the major issues (such as education, gun control, jobs, terrorism, etc.) (3-4 sentences for each issue), that will inform Arnold about what your neighbors believe are the most important issues for Virginia. Find an appropriate sample (10-20 people), generate a visual representation (pie, line, bar graph or chart), and present your findings (3-4 major ideas) to Arnold's campaign staff (poster, chart, video or oral report, or Powerpoint presentation). Help Arnold decide where he belongs on political spectrum from Fascist to*

conflict

The American Revolution

Historian	Historiographer
Political Scientist	Ethnographer
Economist	Psychologist
Cartographer	Statistician
Sociologist	
Anthropologist	

Standards

war	culture	economy	Forecasting
revolution	society	taxation	Cause and effect
conflict	imperialism	rebellion	Notetaking
colonialism	government	independence	Observation
liberty	law	historian	Detecting bias
freedom	constitution	values	Interpreting primary documents

Change and continuity affect events.
Chance events may influence history.
Conflict may lead to revolution or war.
A society's values may lead to conflict.
Rebellion may lead to revolution.

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The Civil War: A PBL Example

- The year is 1865. President Lincoln has been assassinated and President Johnson has convened a special committee to look into who was to blame for five years of brutal civil war. He has asked you to sit on the committee and present your findings (based on your personal experiences) to the committee and the entire Congress.

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Grades 4-8 Clouds of Civil War

Content Knowledge	Social studies programs should include experiences that provide for the study of how people create and change structures of power, authority, and governance (NCSS, 2004).
Assessment	PBL: The Civil War: Who's to Blame?
Introduction	Ask students if they're familiar with the story of The Three Little Pigs; solicit ideas
Teaching Methods	Socratic Seminar; Discussion
Learning Activities	Determining Point of View Determining Fact and Opinion
Resources	*The True Story of the 3 Little Pigs;* primary documents on point of view
Products	Photo essay, political cartoon, diary entry
Grouping	Whole group, Small group based on choice
Extensions	Read journal entries based on role choice
Ascending Levels	Editorial on who has caused all wars. 26

Personal Development: The Civil War

Content Knowledge	(1) The Civil War, (2) Personal development – enhanced attitudes toward the work of historians and war correspondents
Assessment	Learner profile, longitudinal rubric, reflective journal
Introduction	(1) Audio tape, and (2) Guest speakers-historian and journalist
Teaching Methods	Socratic questioning, visualization, conferencing
Learning Activities	Reading, comparing and contrasting, simulations
Resources	Community members, biographies, photographs
Products	Reflective response, war reenactment, debate, etc.
Grouping	Individual, small group, whole group
Extensions	Further reading, video viewing, etc
Ascending Levels	Readability of resources, historians across time and cultures, famous and "not so famous" historians

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Talent Development: History

Has no response; dislikes	Asks questions	Likes to look at historical things	Chooses projects with an historical slant
1	2	3	4
Chooses classes about history	Seeks out friends who love history	Thinks about being an historian	Makes plans for professional growth
5	6	7	8
Enjoys finding unanswered historical questions	Affinity	Collaborative research	Self-actualization
9	10	11	12

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Forwarding Talent Development in History

1 — Find an entrée through the student's current interests

2 — Read books, etc. about historical people and events

3 — Investigate local and historical sites

4 — Enlist the support of the library media specialist to get additional resources

5 — Provide extension activities on projects that the student enjoys

6 — Discuss the discipline with the student; explore course offerings; select appropriate courses

7 — Engage the support of local resources

8 — Locate shadowing and internship experiences

9 — Locate a mentor; help the students become involved as a member in related organizations

10 — Support student's intense work; locate resources; solicit professionals to give the student feedback

11 — Locate grants and fellowships

12 — Nurture the student's research; encourage publishing

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Egyptology

- Discuss the ethical argument in favor and opposed to dealing in antiquities.
- Who owns relics? Conduct a formal debate with regard to this statement: The explorers who found Titanic own its relics.
- Create an original product that illustrates the similarities and differences between the ancient Egyptian and modern-day American cultures.

Dorothy Moore (2004)

How might I manage or deliver PCM activities?

- Contracts
- Centers
- Agendas
- Independent Study
- Homework
- Options
- Alternatives
- Choices

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One Last Thought…

"Instruction is good only when it precedes ahead of development, when it awakens and rouses to life those functions which are in the process of maturing…it is in this way that instruction plays an extremely important role in development."

- *Vygotsky, 1956*

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