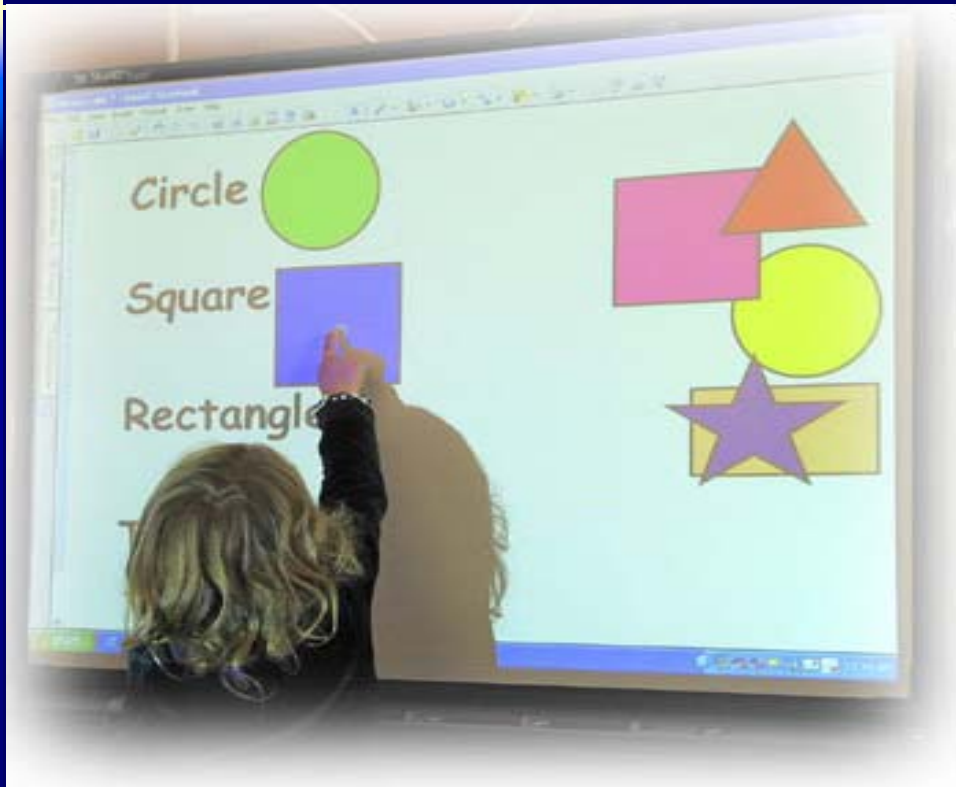


Universal Design for Learning: Meaningful Access to the General Ed Curriculum for All Students



Ricki Sabia
National Down Syndrome Society
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Universal Design in Architecture and Products

- Curb Cuts
- Ramps
- Captions on TV
- Elevators
- Easy Grip Tools

Universal Design for Learning (UDL)

- Applies concept of Universal Design to education
- Principles developed in the 1990's by the Center for Applied Special Technology (CAST-www.cast.org)
- Federal support for UDL research, dissemination since 1999

UDL Benefits

- Recognizes the reality of classroom diversity
- Scientifically valid framework and set of principles for accessible curriculum design
- Provides physical and cognitive access to curriculum

UDL Benefits (continued)

- Minimizes retrofitting by teacher
- Supports meaningful access to the general education curriculum and successful inclusion in general education class

“Universal”



“Design”

- Curriculum must be designed from the beginning to be flexible.
- Must be customizable to provide both challenge and supports for many levels of abilities and learning styles
- Digital text is more flexible than printed text
- However, low tech options can be used

Visual display

http://www.harcourtschool.com/menus/harcourt_horizons/topmenu/index.html

CAST Laurent Clerc National Deaf Education Center

HARCOURT HORIZONS

WORLD REGIONS

Beginner Lesson 1 Passage 5 pp. 175 Home Worklog My Notes Resources Glossary Help

Climate and Vegetation

Mexico's climate varies greatly from the deserts in the northern Sonoran Desert to the southern rain forests of the Yucatán Peninsula. People in Mexico, however, use three terms to describe the [climate zones](#) in which they live. Each is linked to a different [elevation](#), or altitude.

The first of these climate zones is the **tierra caliente**, or "hot land." In general, the *tierra caliente* includes elevations that extend from sea level to 3,000 feet (914 m). This zone has hot summers and mild winters with no frost. **Frost** is a covering of tiny ice crystals that form on a surface when dew or water freezes.

What is it? ABL
This is a town called Cabo San Lucas. ABL

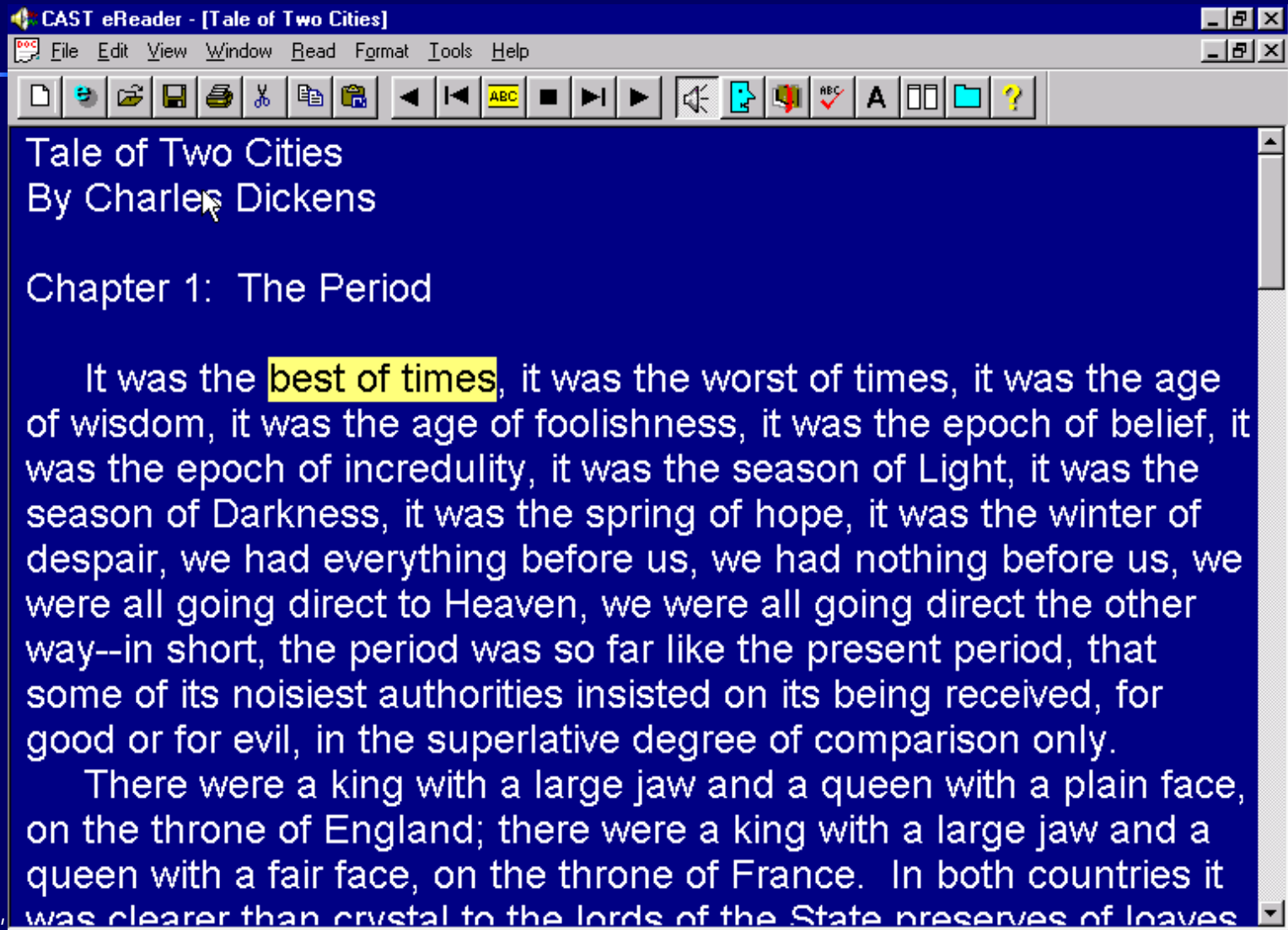
Where is it? ABL
Cabo San Lucas is located at the southernmost tip of the Baja peninsula in Mexico, right by the Pacific Ocean. ABL

A Closer Look **LOCATE IT**

A Closer Look **Book Text**

A Closer Look **Book Text**

Auditory display



CAST eReader - [Tale of Two Cities]

File Edit View Window Read Format Tools Help

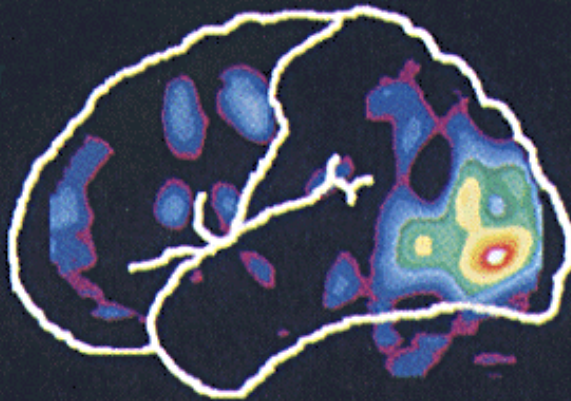
Tale of Two Cities
By Charles Dickens

Chapter 1: The Period

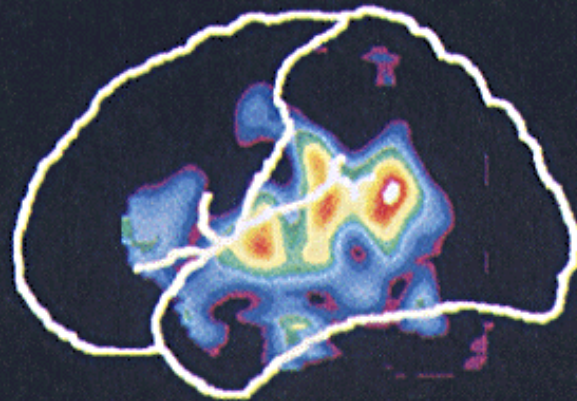
It was the **best of times**, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way--in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only.

There were a king with a large jaw and a queen with a plain face, on the throne of England; there were a king with a large jaw and a queen with a fair face, on the throne of France. In both countries it was clearer than crystal to the lords of the State preserves of loaves

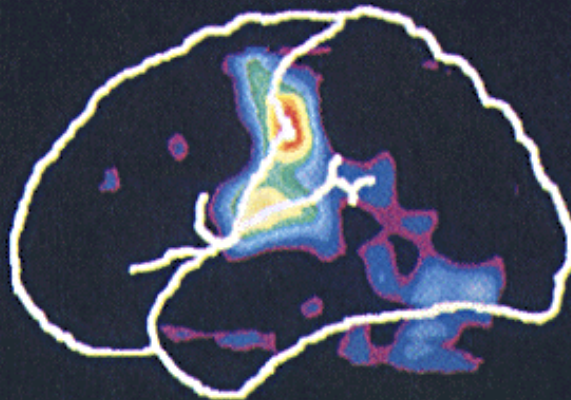
“For Learning”



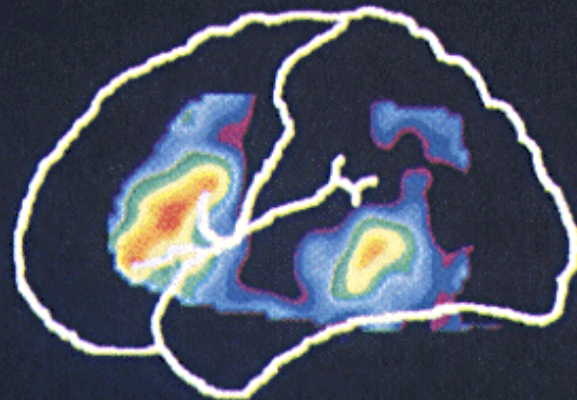
Passively viewing words



Listening to words



Speaking words



Generating verbs

UDL and the Learning Brain



- Recognition networks
- Strategic networks
- Affective networks

UDL and the Learning Brain



Recognition networks:
"the what of learning"

Recognition Network

Recognition Network

UDL Principle:

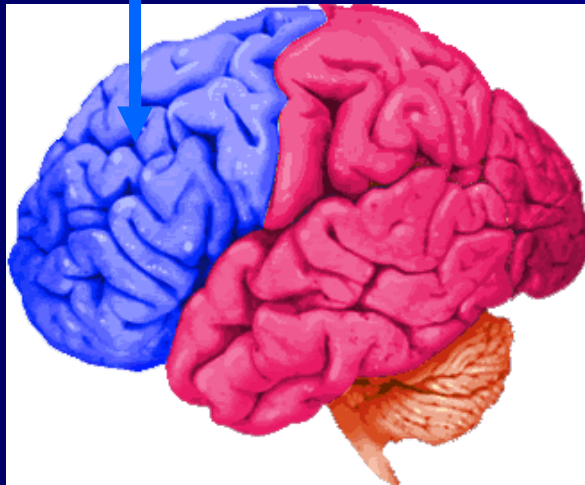
Multiple Means of Representation

– Supports learning by providing:

- options for perception (interpreting sensory information)
- options for understanding language
- options for understanding concepts

UDL and the Learning Brain

Strategic Network



Strategic networks:
“the how of learning”

plan, execute, and
monitor actions
and skills

Strategic Network

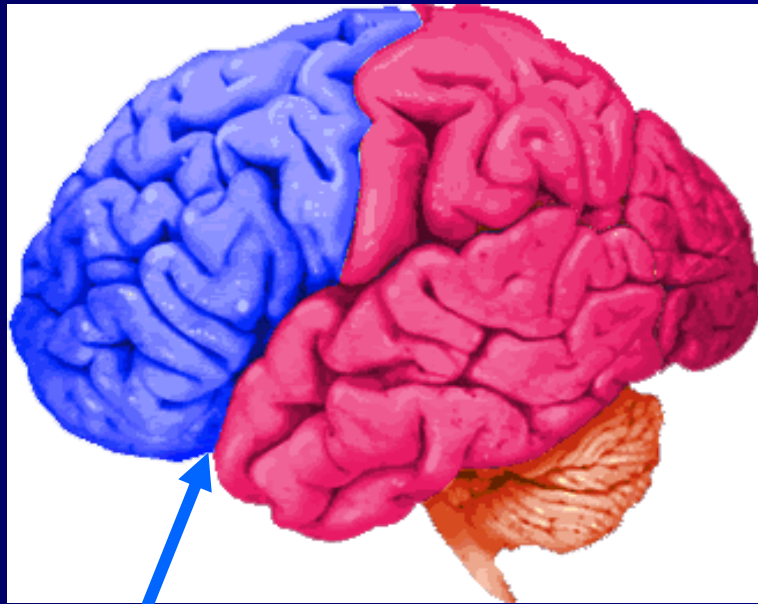
UDL Principle:

- Multiple Means of Action and Expression
 - Supports learning by providing:
 - options for **physical actions**
 - options for **expressive skills**
 - options for **executive functions**

Affective Network



UDL and the Learning Brain



Affective networks:
"the why of
learning"

Affective Network

Affective Network

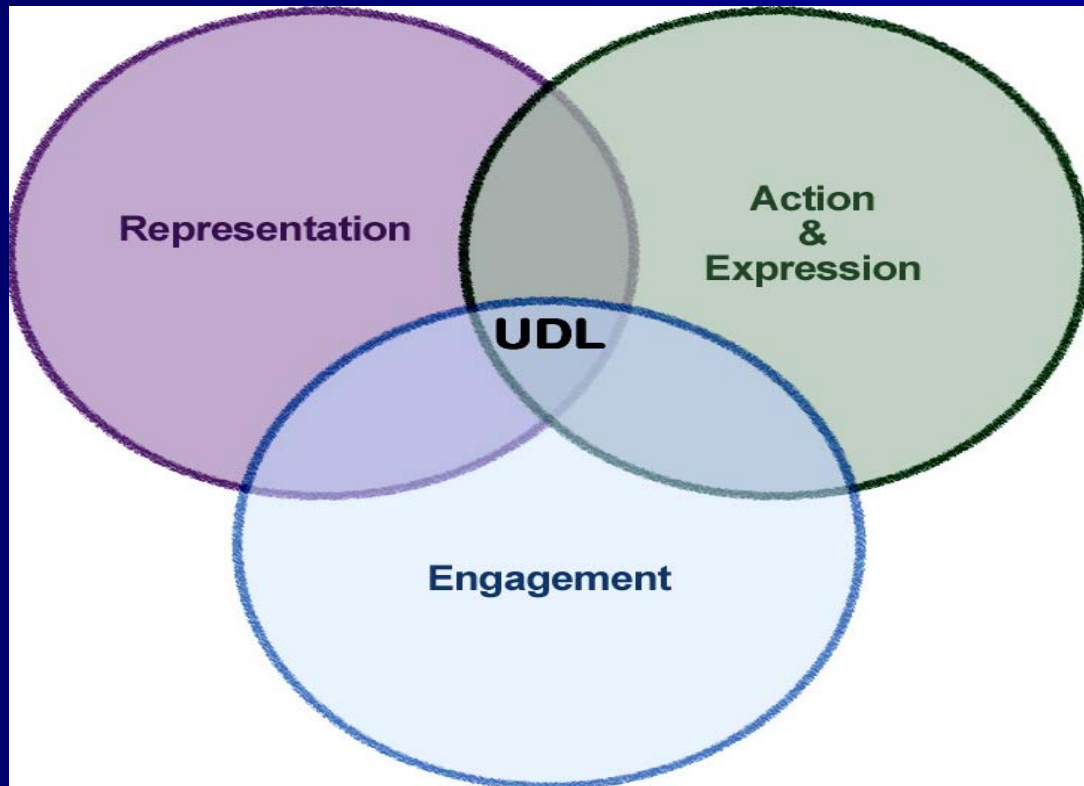
UDL Principle:

- Multiple Means of Engagement
 - Supports learning by providing:
 - options for **creating interest**
 - options for **sustaining effort and persistence**
 - options for **self-regulation**

Implementing UDL

http://www.cast.org/publications/UDL_guidelines/version1.html

All the brain networks engaged simultaneously.



UDL in Practice

Apply the three principles to the four pillars of curriculum: educational goals, materials, methods, and assessments

This ensures all three brain networks are engaged at the same time to optimize learning and accurate assessment!

Instructional Goals

Traditional:

The means for accomplishing the goals are interwoven into the instructional goal.

UDL:

The means for attaining the goals can be individualized.

Instructional Materials

Traditional:

The materials are mostly print;
everyone gets the same materials

UDL:

Use a variety of levels of printed text,
digital, video, audio materials etc. (no
tech, low tech and high tech)

Digital Examples of Materials:

Bookbuilder

The screenshot shows a Mozilla Firefox browser window displaying the CAST UDL Book Builder website. The browser's address bar shows the URL <http://bookbuilder.cast.org/>. The website features a dark purple header with the CAST logo and the text "CAST UDL BOOK BUILDER". On the right side of the header, there is a login section with fields for "Username:" and "Password:", a "SIGN IN" button, and links for "CREATE AN ACCOUNT", "FORGOT YOUR PASSWORD?", and "FAQs". Below the header, a "WELCOME!" message is accompanied by a cartoon giraffe illustration. The main content area includes a list of navigation options: "Learn About Universal Design for Learning (UDL)", "Explore Model Books", "Explore Shared Books Library", "View Tips for Authors & Illustrators", and "Create and Edit Books". At the bottom of the page, there is a row of six small images showing students and teachers interacting with digital content, including a cartoon penguin character.

UDL Editions

<http://udleditions.cast.org/>

UDL Editions take advantage of the flexibility of digital media to reach and engage all learners. Leveled supports and the Texthelp Toolbar balance challenge and support for each learner, ages 10 and up.



Also see Thinking Reader
<http://www.tomsnyder.com/products/product.asp?SKU=THITHI&Subject=LanguageArts>

Kurzweil

<http://www.kurzweiledu.com/>


Kurzweil 3000 (decosted) - [The Three Little Pigs_book.rtf]

File Edit Scan Read View Tools Reference Window Online Help

New Open Save Print Scan Back Read Forward Audible Definition Synonym Syllables Spell Help

VW Kate Self-paced Paragraph 100 200% 1 1 1

"Not by the hair of my chinny chin chin" said the pigs.
Well, the wolf huffed and puffed but he could not blow down that brick house.
But the wolf was a sly old wolf and he climbed up on the roof to look for a way into the brick house.



The little pig saw the wolf climb up on the roof and lit a roaring fire in the fireplace and placed on it a large kettle of water.

Kidspiration

<http://www.inspiration.com/Kidspiration>

Drag and click to
the correct box.



Little Pig



Brick House



Straw
House



Wolf



Little Pig



Stick house



Day



Little Pig

FAIRY TALE: The Three Little Pigs



Who are the main
characters in the
story?

The Setting: When and
where does the story
take place?

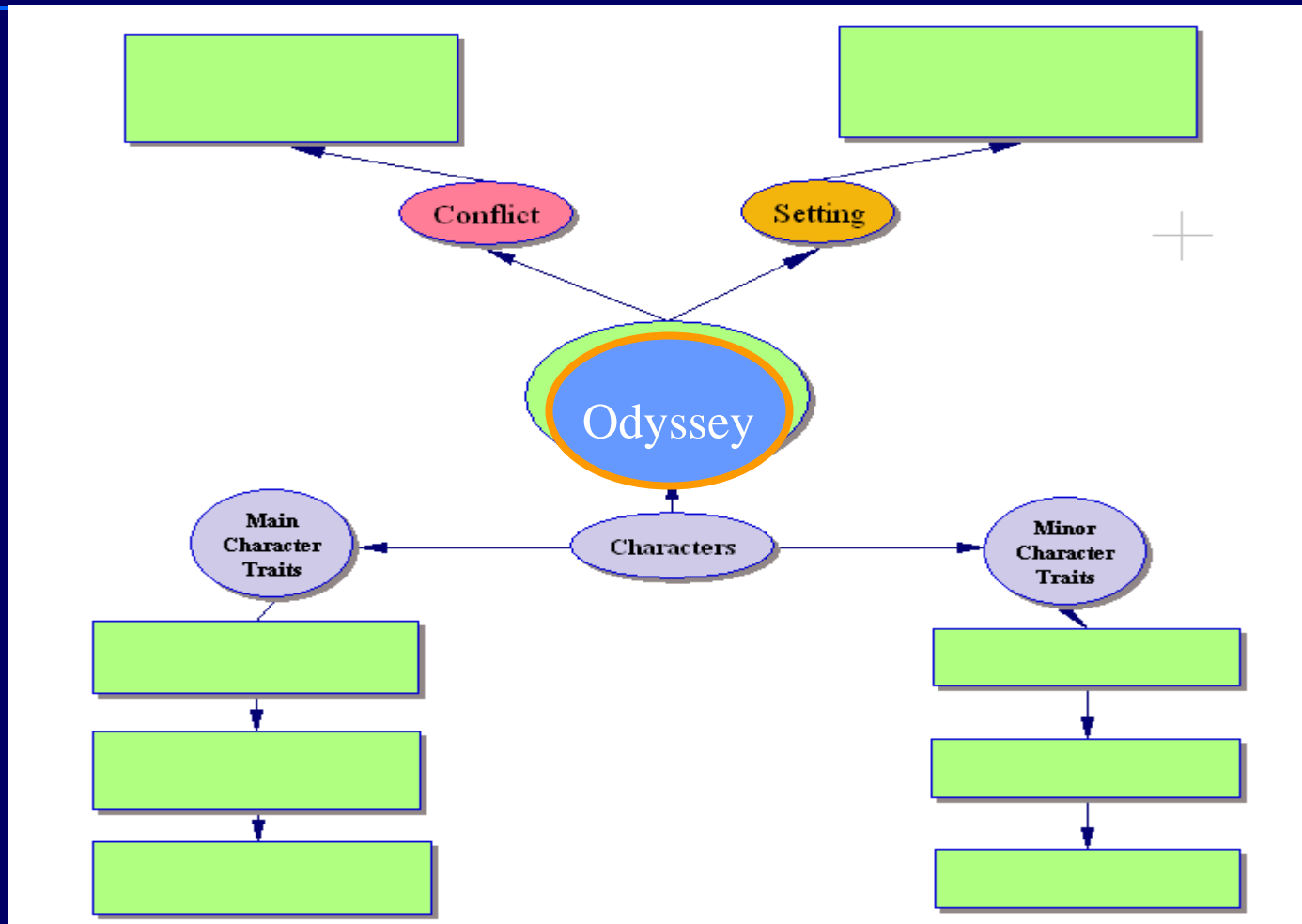
WRITE: What is the
IMPORTANT MESSAGE
the author wants you to
learn?

WRITE: What are some GOOD things that happen in the story?

WRITE: What are some BAD things that happen in the story?

Inspiration

<http://www.inspiration.com/Inspiration>



Power Point

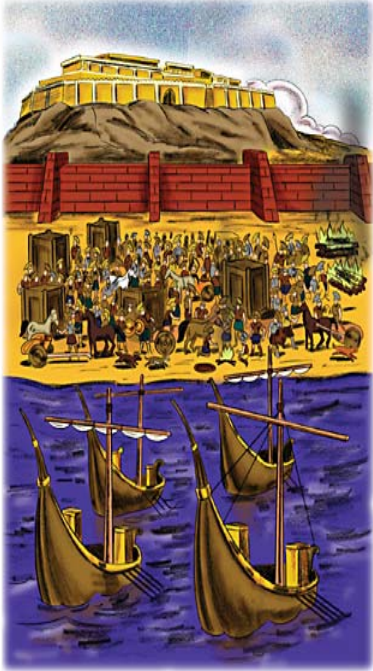
Chapter One A Call to War

- Long ago on the island of Ithaca Greece, a man named Odysseus lived. He was the king of this island.




Don Johnston Start to Finish Products

http://www.donjohnston.com/products/start_to_finish/



Chapter One

The Great Quarrel



O Muse, goddess of poetry, help me to tell this story of the anger of mighty Achilles and how it brought sorrow and death to the Greeks. In this way, everything happened according to the plan of Zeus.

And what was the cause of Achilles's anger? It was his quarrel with King Agamemnon, the leader of the Greek army.

Chapter 1

16 : 17

Contents5
.....26

Sentence Word

Quit

Teaching Methods

Traditional:

Usually lecture style, homogenous grouping, unsupported note-taking

UDL:

- Avoid limiting presentation style.
- Frequent questions, clarification, interactivity
- Heterogeneous working groups
- Provide adapted materials for note-taking

Assessments

Traditional:

Administer the end-of-chapter test, which consists of multiple choice and short essay answers.

UDL:

- Ensure test objectives match instructional objectives
- If needed consider alternate means of delivery, modification of assessment content, different question format

National UDL Task Force

- Coalition of 38 national general education and disability groups; some with counterparts at state/local level
- Mission: promote implementation of UDL through policy and dissemination of information to stakeholders
- Biggest Challenge—get recognition that this is for ALL students not just a special education issue.

Federal Level-Task Force Action Steps

- IDEA-needs UDL language, add to NIMAS, Universally designed assessments
- ESEA/NCLB- had briefing and presented draft language
- Higher Ed Act – incorporated UDL language in reauthorized Act

Federal Level-Task Force Action Steps

- Seeking more grants and TA from Department of Education
- Communication campaign-OSEP Toolkit
- UDL Project Forum

What You Can Do- Advocacy for UDL

National Level

- Educate your Representative and Senators and/or their staff about UDL
- Respond to NDSS alerts

Advocacy for UDL

State level (similar for local level)

- State coalition of stakeholders
- Statewide conference on UDL.
- Inform State officials/legislation
- Encourage development of state strategic plan
- Get UDL in State technology plan

Advocacy for UDL

Local level (additional)

- Meet with Board of Ed members
- Testify at budget hearings
- Meet with curriculum department
- Address textbook and instructional material selection process
- Encourage development of site for teachers to share materials

Advocacy for UDL

School Level:

- Have one-one conversations with principal, teachers and other parents
- Present at staff and PTA meetings
- Recruit them to advocate with you
- Encourage attendance at CAST Institutes

<http://www.cast.org/pd/institute/index.html>

UDL Principles and the IEP Goals and Materials

- Selection of curriculum objectives per marking period.
- Homework and projects aligned to selected objectives.
- Alternate formats of textbooks, novels and supplemental materials
- Use of computer for writing and for accessing software.
- Preview of instructional materials.

UDL Principles and the IEP

Teaching Methods and Assessments

- Class discussion questions in yes/no or multiple choice format.
- Teacher training on technology
- Teacher-made assessments based on curriculum objectives, which are designed to eliminate barriers caused by the disability.
- Digital assessments