Face



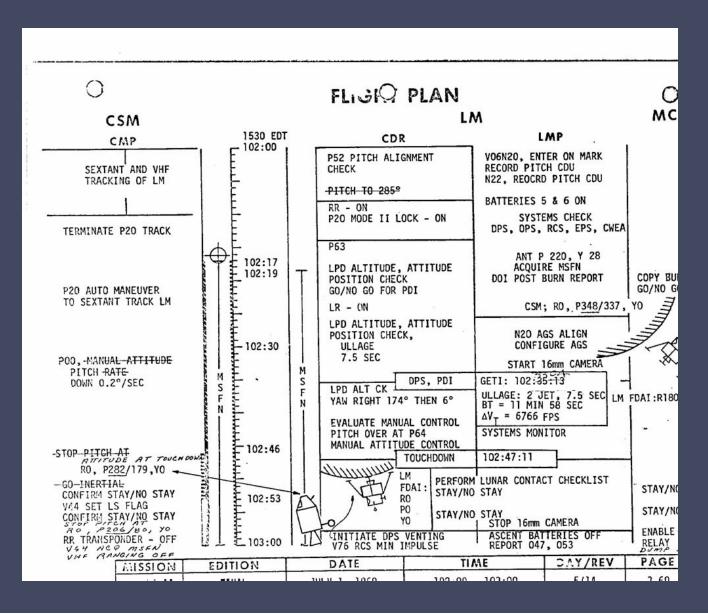
Sometimes the face you get is not the face you would have chosen, but it is a good face nonetheless because it is yours and yours alone. From <u>Thom</u>.

Welcome!

Visual Literacy: An Essential Skill for 21st Century Learning

David Jakes Community High School District 99 Downers Grove, IL

If you were visually literate...



What does it mean to be visually literate?

Can students interpret, use, appreciate, and create images and video using both conventional and 21st Century media in ways that advance think, decision-making, communication and learning?

The New Shape of Information

DigitalNetworkedOverwhelmingImmediateManipulatableParticipatoryand....Visual

Imagery vs. Sound: The Battle for Bandwidth

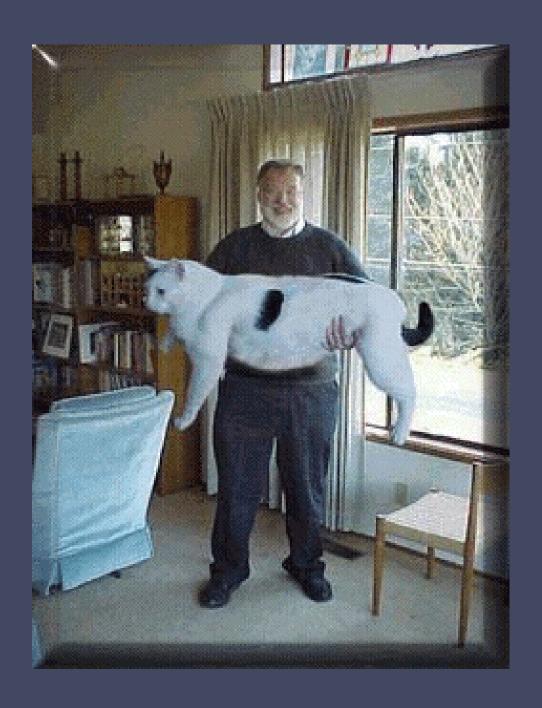


















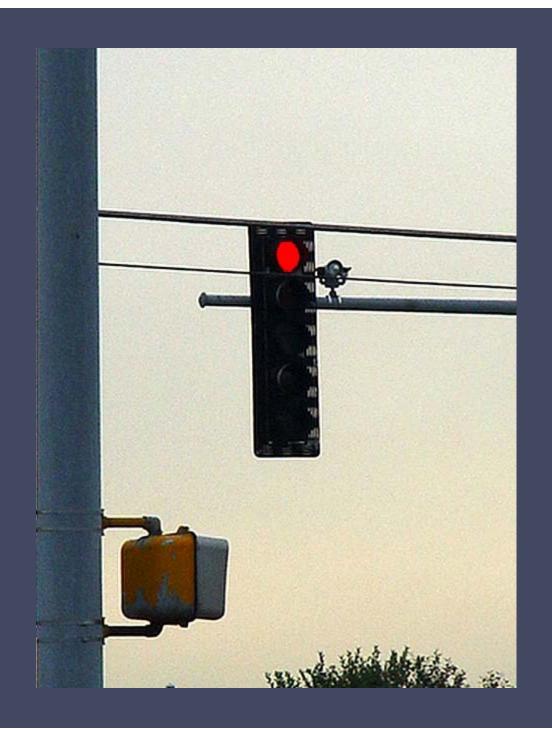




















Text

- This is a sans-serif font
- This is a serif font
- Never use Helvetica with adults
- Use the 6 X 6 rule (which I am violating)
- Avoid CAPITAL letters.
- Projection vs. Paper
- Text Color?

Dave's PowerPoint Rules

The Overhead Rule:

Just because you can doesn't mean you should.

The 5P Rule: Proper Pedagogy
 Produces Powerful PowerPoints.

PowerPoint: First the Bad and the Ugly

- Improper Design
- Oversimplification of thought. 1
- Predictable formatting of content
- Digital Set of Notecards
- Encourages presentation, not discussion and higher order thinking.

PowerPoint: First the Bad and the Ugly

- PowerPoint is not a synthesis tool
- Digital Cut and Paste Constructions
- Lack of added value.
- Lack of benefit to the audience.

Finally, the Good

- Ubiquitous
- Integrates different types of media extremely well
- Flexible
- Easily understood and used
- Open ended content-empty creation tool

Teacher Techniques

- B
- W
- Including more slides
- Jumping
- Adding Hyperlinks
- Searching for already <u>made PowerPoints</u>
- Quick and Dirty <u>PowerPoints</u>

Instructional Techniques

- Base learning activity in <u>essential</u> <u>questions</u>.
- Two part assignments
- Storyboard
- No Words!
- Audience
- Focus on PowerPoint's capabilities <u>1</u> | <u>2</u> |
 <u>3</u>

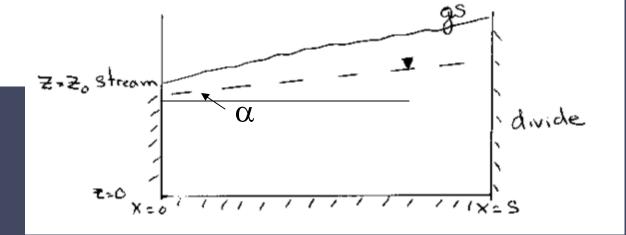
Instructional Techniques

- Use it to provide a rich multimedia experience
- Use it as a platform
- Collaborative construction of class PowerPoint?
- Storytelling
- Games <u>1 | 2</u>

Recall Toth developed a solution for Steady State flow in a 2D section from a stream to a divide

he solved the Laplace Equation

$$\frac{\partial^2 \mathbf{h}}{\partial \mathbf{x}^2} - \frac{\partial^2 \mathbf{h}}{\partial \mathbf{z}^2} = \mathbf{0}$$



boundaries

left
$$\frac{\partial \mathbf{h}}{\partial \mathbf{x}}(\mathbf{0}, \mathbf{z}) = \mathbf{0}$$
 right $\frac{\partial \mathbf{h}}{\partial \mathbf{x}}(\mathbf{s}, \mathbf{z}) = \mathbf{0}$

$$\begin{array}{cc} \mathbf{lower} & \frac{\partial \mathbf{h}}{\partial \mathbf{z}} (\mathbf{x}, \mathbf{0}) = \mathbf{0} \end{array}$$

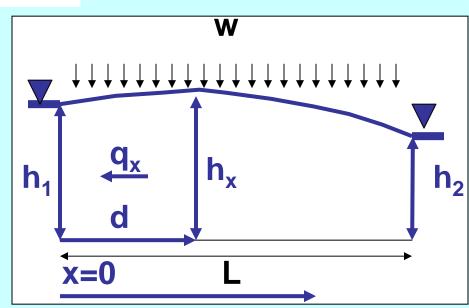
upper water table
$$h(x,z_o) = z_o + cx = z_o + tan(\alpha)x$$

Recall Dupuit, Flow to fixed heads with recharge:

$$\mathbf{h}_{x} = \sqrt{\mathbf{h}_{1}^{2} - \frac{(\mathbf{h}_{1}^{2} - \mathbf{h}_{2}^{2})\mathbf{x}}{L} + \frac{\mathbf{w}}{\mathbf{K}}(\mathbf{L} - \mathbf{x})\mathbf{x}}$$

$$\mathbf{q}_{x} = \frac{\mathbf{K}(\mathbf{h}_{1}^{2} - \mathbf{h}_{2}^{2})}{2\mathbf{L}} - \mathbf{w}(\frac{\mathbf{L}}{2} - \mathbf{x})$$

$$d = \frac{L}{2} - \frac{K}{w} \frac{h_1^2 - h_2^2}{2L}$$



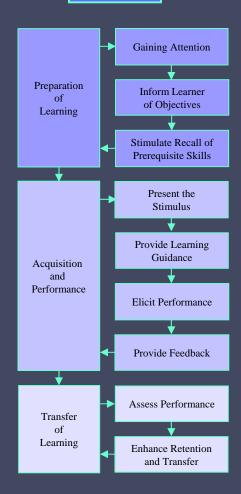
Note:

Recharge is a fixed flux and head/gradient will be calculated to accommodate that recharge - e.g. High recharge >> High heads

h1 and h2 are fixed heads and flux will be calculated to accommodate those heads - e.g. a high h1 will shift the divide to the left of the problem domain and produce large influx that joins the reaching and discharges to the right, if h2 is very low, that influx will be even higher

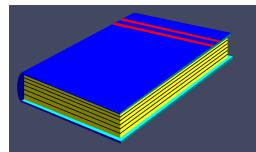
Gagne's 9 Events of Instruction

External Conditions of Instruction



- Gain attention: Interest learners, facilitator / learners pose questions
- **Inform learner of objectives:** Explain / present goals, requirements, learners identify goals, expectations
- **Stimulate prerequisites recall:** Verbal-, written-, graphic-or activity-driven review
- Present stimulus material: Relate content to learner
- Provide learning guidance: Use direct & indirect prompts, questioning, discovery
- Elicit the performance: Allow for demonstration
- Provide feedback: Positive and corrective feedback on performance
- Assess performance: Test for validity and reliability of performance
- Enhance retention and transfer: Provide for application in new context, vary conditions

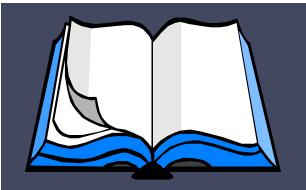




Setting a Purpose for Reading Questioning

Turn these headings into questions

- The New England Colonies
- The Pilgrims
- The Puritans and the Great Migration
- Massachusetts Bay Colony
- Discontented Colonists Establish New Colony



During Reading Activities

Predicting while reading

A 60-year-old couple was celebrating their 40 years of marriage. During the celebration a fairy appeared and said, "Because you have been such a loving couple all those years, I would like to give you each one wish."

Student Nonviolent Coordinating Committee

- Student Nonviolent Coordinating Committee (SNCC)
- launched at Greensboro, N.C., when black college students insisted on service at a local segregated lunch counter. Patterning its techniques on the nonviolent methods of Indian leader Mohandas Gandhi, the movement spread across the nation, forcing the desegregation of department stores, supermarkets, libraries, and movie theatres.
- In May 1961 the Congress of Racial Equality (CORE) sent "Freedom Riders" of both races through the South and elsewhere to test and break down segregated accommodations in interstate transportation. By September it was estimated that more than 70,000 students had participated in the movement, with approximately 3,600 arrested; more than 100 cities in 20 states had been affected. The movement reached its climax in August 1963 with a massive march on Washington, D.C., to protest racial discrimination and demonstrate support for major civil-rights legislation that was pending in Congress.

Visual Literacy

 Visual Literacy: the ability to produce, interpret, and communicate visual imagery. Individuals who are visually literate can problem solve visually.

Designing PowerPoints with Visual Literacy in mind

- 6 X 6 rule
- Text Style
- Background Color
- Text Color

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