



INKLINGS

Bulletin of Interpretive Ideas

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Simplifying the Complex

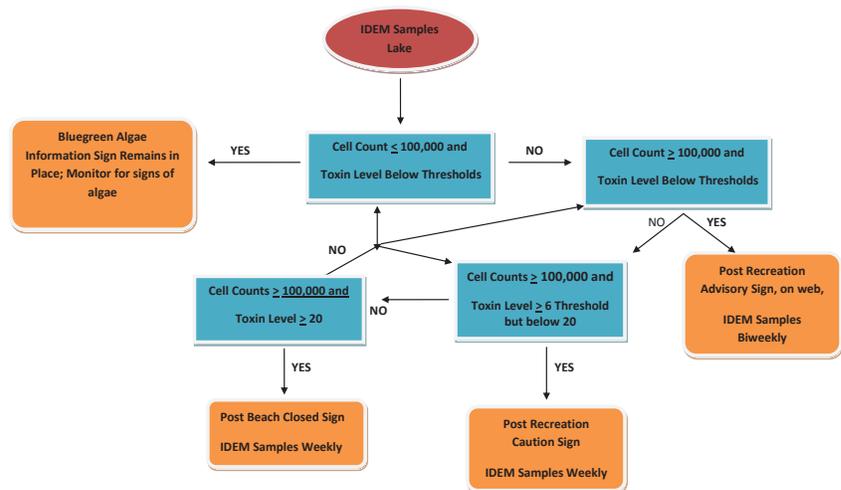
Explaining a scientific concept in under 30 seconds

by Lise Schools

The other day I watched an episode of “The Big Bang Theory”. In the episode, four physicists in the room attempted to explain a concept to a fifth person. Try as they might, every explanation contained terms and references that were totally unfamiliar to the person. She became increasingly overwhelmed, frustrated, and ceased to care about the point being made.

In our work, we are frequently required to explain a complex issue and resulting management decision. Unfortunately, we have only seconds to get the message across.

An example I recently worked with had to do with water quality and beach closures. The steps leading to a closure are based on measurable benchmarks, each resulting in an action. The decision-process looks like this:



Toxin Thresholds

Type of Posting	Microcystin (ppb)	Cylindrospermopsin (ppb)
Recreation Caution	≥ 6 but < 20	≥ 5 but < 20
Beach Closed	≥ 20	≥ 20

Original diagram for in-house use

While this diagram worked well with staff and those familiar with the issue, the time that a visitor would invest in understanding this diagram is too great. The challenge was to make it easier to understand, while still maintaining accuracy.

Some strategies:

1. Simplify the text.

a. *What is the basic premise?* After studying it, it became apparent that there were

Current Project List

- **Indiana Department of Natural Resources**

Interpretive Plan

Prophetstown State Park
JD Marshall Shipwreck

Interpretive Sign Design

Blue-Green Algae Alert

- **Community Foundation of St. Clair County (MI)**

Interpretive Plan Sign Design

Upper St. Clair River Habitat
Restoration Project
(with Smith Group/JJR)

- **Tippecanoe County Parks (IN)**

Interpretive Sign Design

Tippecanoe Battlefield

- **Toledo Metroparks (OH) (with Smith Group/JJR)**

Interpretive Planning

Howard Farm Park
Pearson Park

- **City of Hobart (IN)**

Interpretive Sign Design

Pennsy Station

- **The Nature Conservancy (IN)**

Interpretive Sign Design

Kankakee Sands Project

- **Bloomington Parks and Rec. (IN)**

Interpretive Sign Design

Solar Panels
Dog Park

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Visit our website www.interpretiveideas.com

Lise Schools, Owner
 lise@interpretiveideas.com

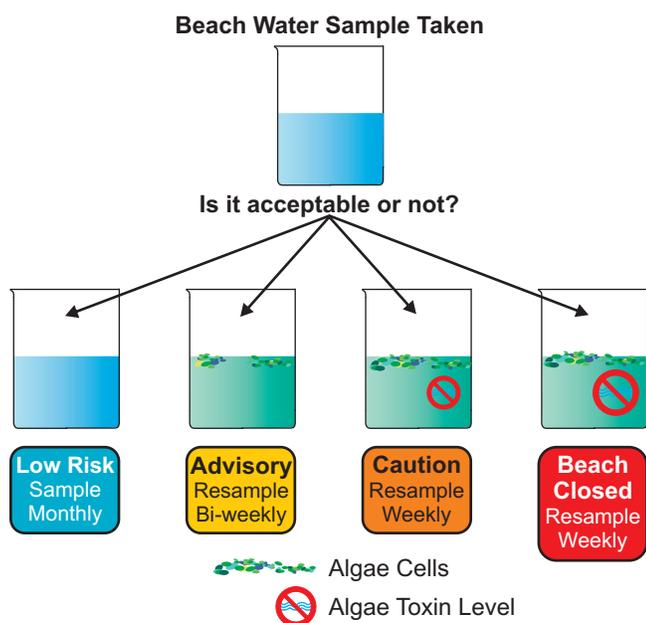
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Okemos, MI 48805-0355

P.O. Box 355

Interpretive Ideas

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Revised diagram for public use

only two questions being asked:

- 1) Is algae present?
- 2) How much algae is there?

b. *Remove terms that may be unfamiliar.* The term “threshold” and “ppb” (parts per billion) were removed as were the > and < symbols.

2. Use symbols instead of words or numbers.

a. *Beaker symbol.* This conveys that we’re looking at a water sample at each step.

b. *Algae and toxin symbols.* The red circle is a recognized warning symbol. The larger the icon gets, the higher the toxin level. Knowing the exact level is not necessary, so the numbers were removed.

3. Use of color.

a. *Blue or green water color.* Without explanation, viewers understand that blue is a good sample and green is a bad sample.

b. *Pale to deep advisory color.* Red is a known warning color. The further away from red the color gets, the lower the advisory. Viewers understand this even if they don’t read the text.

Conveying our decision-making process is vital to our visitor’s understanding of the issue. Additionally, they gain an appreciation of the agency’s science-based decision-making process.