Student Drivers -

Driving question boards empower students to figure out what they really need to know and how they will get there.

I noticed...

Why did...

How often does...

I Wonder...

What if...
You can find more storylines and the storyline tools at:

http://www.nextgenstorylines.org

You can find lots of examples of our classrooms on Twitter:

Holly Hereau @hhereau
Wayne Wright @wewright1234
Why do dead things disappear over time?
Predictions

- DRAW
- What will this look like in 2 weeks?
- What will this look like in 2 months?
Examples of Student Predictions

Lesson 1 - Student Activity Sheet: What will happen to the raccoon?

Q1: Draw and label your predictions of what you think the raccoon and the surrounding area will look like over time.

Raccoon after 2 days
- Raccoon after 2 weeks (84 days)
- Raccoon after 2 months (60 days)

What will cause it to look this way?
- The raccoon is gone and there are nothing but the bones.
- The raccoon was eating the raccoon.
- The raccoon has decomposed.

The raccoon looks like that because:
- Other raccoons and animals killed the raccoon.
- Other raccoons and animals killed the raccoon.
- Other raccoons and animals killed the raccoon.
What do we Notice/ Wonder?
Driving Question Board

Day 1

Day 5

Day 9
Driving Question Board in Lynda’s Class
Examples of Questions

- What are those insects doing on the carcass? Where did they come from?
- What happens to all the parts of the badger like the inside muscles and organs, fur, and bones?
- Do some parts of the badger go into the soil? Does some get washed away? Does it get eaten etc.?
- Is this the same thing that happens to leaves, or fruit or wood when it rots?
- How do new plants grow from parts of plants that seem like they are dead?
A question with a phenomena lead to more questions.
Anchoring Phenomena
Having the END in Mind!
What do you want students to produce?
Driving Question Boards

Not about how it looks but how it is used!
Initial Questions vs. Driving questions

What about parking lots?
Initial Questions

1) Questions on Bacteria + Antibiotics
   - What type of Bacteria found?
   - Is this Bacteria found more in some places than others?
   - How do antibiotics work?
   - Why not give them all at once?
   - Are there other ways to Kill Bacteria?
   - Why not give the Strongest Antibiotics First?
   - Once infected, how long before you feel sick?
   - How many people are affected by antibiotics
   - Is there a cure yet?
   - What type of Antibiotics did they give?

2) Questions on Bacteria + Antibiotics
   - Why not give them all at once?
   - Are there other ways to kill Bacteria?
   - Why not give the Strongest Antibiotics First?
   - Once infected, how long before you feel sick?
   - How many people are affected by antibiotics
   - Is there a cure yet?
   - How long has this been going on?

3) Bacteria
   - Place?

4) Other
   - Place?
Driving Question Boards
Not about how it looks but how it is used!
Students Figure it out

NATIONAL SUMMARY DATA

Estimated minimum number of illnesses and deaths caused by antibiotic resistance:

- At least **2,049,442** illnesses, **23,000** deaths

*Note: Bacteria and fungi included in this report

Estimated minimum number of illnesses and death due to *Clostridium difficile*, a unique bacterial infection that, although not significantly resistant to the drugs used to treat it, is directly related to antibiotic use and resistance:

- At least **250,000** illnesses, **14,000** deaths

WHERE DO INFECTIONS HAPPEN?

Antibiotic-resistant infections can happen anywhere.

Abstract

Objectives:
Our goal was to determine the diversity and abundance of *Staphylococcus* bacteria on different components of a public transportation system in a mid-sized US city (Portland, Oregon) and to examine the level of drug resistance in these bacteria.

Methods:
We collected 70 samples from 2 cm x 4 cm sections from seven different areas on buses and trains in Portland, USA, taking 10 samples from each area. We isolated a subset of 14 suspected *Staphylococcus* spp. colonies based on phenotype, and constructed a phylogeny from 16S rRNA sequences to assist in identification. We used the Kirby-Bauer disk diffusion method to determine resistance levels to six common antibiotics.

Results:
We found a range of pathogenic *Staphylococcus* species. The mean bacterial colony counts were 577 on bus and train floors, 851 in cloth seats, 9.5 on handrails, 8.6 cm seats and armrests at bus stops, 3.6 on the underside of seats, 2.2 cm window, and 1.2 cm vinyl seats per 5 cm² sample area. These differences were significant (*p* < 0.001). Of the 14 isolates sequenced, 11 were...
Lynda’s Class
Students Figure it out and keeping track of it.
Students Call To Action