



# What's in the Pond? Water Quality at Two Mile Prairie Elementary

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## Introduction

The goals of our project were to:

- ✓ Learn about water quality and find out how clean our pond is
- ✓ Find out what animals are in the pond
- ✓ Learn about chemicals in the pond
- ✓ Find out how many different living things are in the pond, how many of each species
- ✓ See if chemicals are affecting the living things in the pond

## Methods



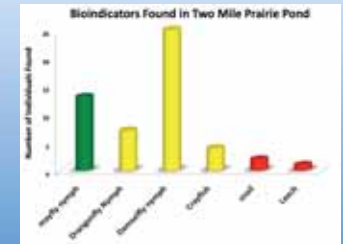
- We collected organisms from the pond's edge using a net
- We sorted through the plants and mud caught in the net to find small animals
- We used our microscopes and microscope camera to take pictures of what we found
- We used a chemical test kit to see how many chemicals are in our pond and how much

## Results

### Water Chemistry

**Date: 04/19/12**  
**Water temp: 22°C**  
**Ammonia: none**  
**pH: 8**  
**Dissolved Oxygen: high**  
**Nitrate: none**

### Bioindicators



## Conclusion

- ◆ Our chemical tests showed that our water has very little or no ammonia or nitrates. The pH is safe and we have a high level of dissolved oxygen.
- ◆ We found Mayfly nymphs which can not live in polluted water
- ◆ We conclude that our pond water is clean and unpolluted

### BIOINDICATOR KEY

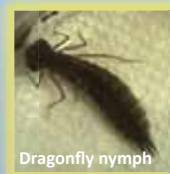
- Can only live in very clean water
- Can live in clean or mildly polluted water
- Can live in clean, mildly polluted, or very polluted water



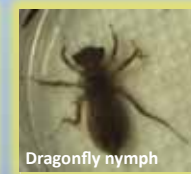
Mayfly nymph



Damselfly nymph



Dragonfly nymph



Dragonfly nymph



Crayfish



Pouch Snail



Leech

### Other aquatic life we found:



Fly larvae



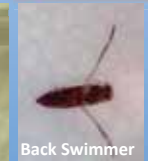
Catfish



Club tail Dragonfly nymph



Hydrophilid beetle



Back Swimmer



Tadpole

### What is a bioindicator?

A bioindicator is a living thing that shows how **good** or **bad** the environment around it is. Mayfly nymphs are bioindicators that can only live in clean water because they are sensitive to pollution. If Mayfly nymphs are found in our pond, this means the water is clean.

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