

ACTIVITY #7: WATER QUALITY EXPERIMENT

The guideline for pH (potential Hydrogen) is a range of 7.0 to 10.5 in finished drinking water (Health Canada, 2015). Generally a range of 6.5 to 8.2 is preferred for most life in the water. Different things can affect the pH of the water like an algae bloom or increased pollution.

Some aquatic animals are very sensitive to changes in pH, and are often used as living indicators ("bioindicators") of an ecosystem's health. One example is dragonflies because they have a biphasic lifecycle, meaning they spend part of their life in the water as aquatic nymphs and part of their life in the terrestrial environment as adults.



Common green darner (*Anax junius*).



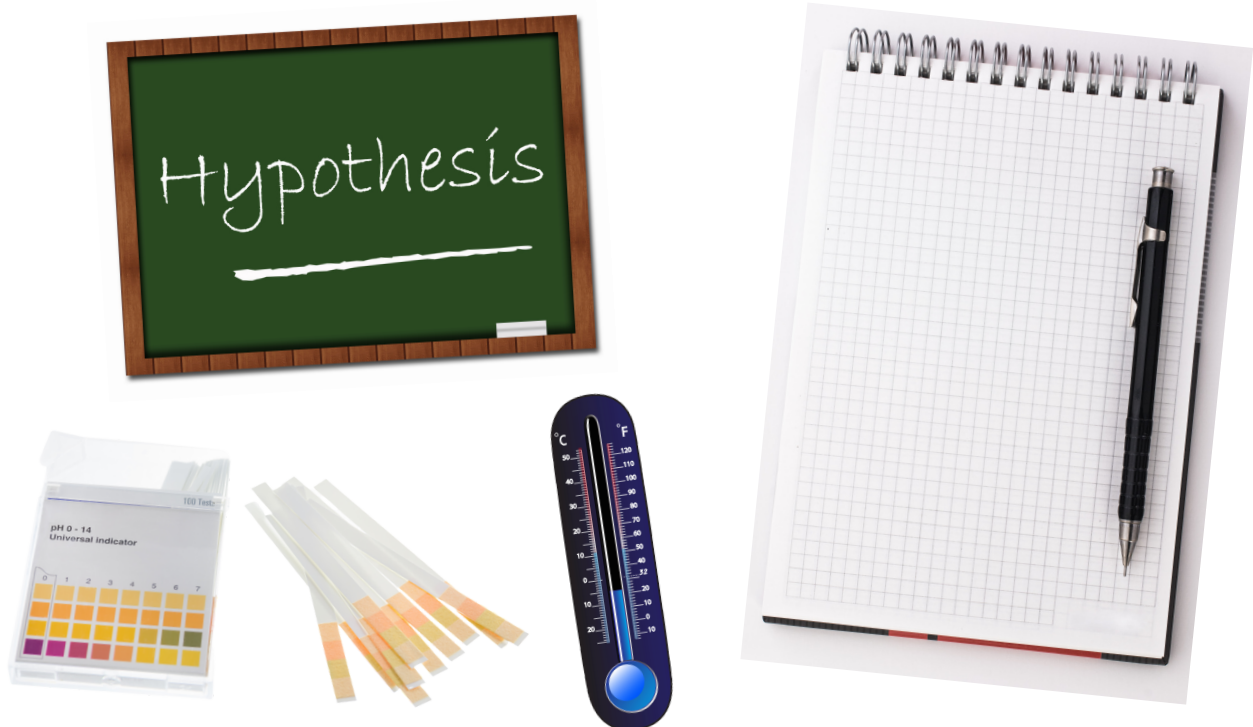
Band-winged meadowhawk (*Sympetrum semicinctum*).

Getting started

To compare results, use your water test kit in 5 different spots. If you cannot get to five different natural areas, use tap water and add different things to each container that might end up in our freshwater sources, like salt (road salt) and soap (car washes).

Before you begin testing, make a hypothesis - an idea that proposes a possible explanation about what will happen. Where and why do you think you will find different conditions for air temperature, water temperature, and pH?

Record your findings each time in your notebook. What did you find?



Source: Getty Images

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