

Lesson Plan:
Corrosion Article Discussion Day.

Lesson Topic	Corrosion
Lesson Rationale	<p>This applies to acid base chemistry by looking at the affect that acid has on various substances.</p> <p>This unit looks directly at one of my sub questions dealing with corrosion and the effects on real world substances. Engaging students in discussion as a whole class and in pairs or small groups of kids.</p>
Standards	<ul style="list-style-type: none"> - 11-12.C.1.2.4 Distinguish the common theories defining acids and bases. - 11-12.C.1.3.6 Express concentrations of solutions in various ways including molarity - 11-12.C.1.3.8 Analyze quantitative relationships involved in acid/base chemistry including pH. - 11-12.C.2.1.5 Explain the relationship and reactions of acids, bases, and salts. <p>NGSS</p> <ul style="list-style-type: none"> - HS-PS1-6. Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium. <p>Cross Cutting Concepts</p> <ul style="list-style-type: none"> - Patterns - Scale, Proportion, and Quantity
Evidence	Small Group discussion on observations on demos
Desired Results	<ol style="list-style-type: none"> 1. Define corrosion and apply it on a global scale. 2. Predict the effects of various corrosive substances on different metals. 3. Explain why the industry has to go through all of these anti corrosion measures
Learning/ Teaching Activities	<p>Introduction:</p> <p>Entry Point: Start out with a 5-minute write on their initial thoughts and ideas on corrosion.</p> <ul style="list-style-type: none"> ■ Bring the class together and see if there are any common ideas between students (think, pair, and share). ■ After the discussion have them read the article on corrosion, and how to applies to the red color of Prince Edward Island soil. ■ Jigsaw the article so that small group discussion can be had about each part of the article. <p>Finally talk about each reaction and make predictions for each of the reactions. Have them write hypotheses for each rxn. Discuss each reaction and what variable we are changing with each one.</p>
Materials	Acid/Base Lab Equipment List

Needed	<p>Corrosion Article</p> <p>Materials list can be found in the lab hand out for the Corrosion demos</p>
Assignment / Follow-up	<p>This will cause my students to think about developing multiple hypotheses and considering multiple variables.</p> <p>The idea of corrosion is a bit abstract for kids. They are all aware of the idea that acids can break things down and dissolve many substances. However they aren't usually aware that there is technology out there today that companies can use to stop corrosion.</p>