Resources

Transforming Agricultural Education for a Changing World
http://dels-old.nas.edu/ag_education

Strategies to Integrate Now
www.strategiestointegratenow.com

Achieve, Inc.
www.achieve.org

The Curriculum Matrix
www.leadered.com/curriculumMatrix.html

States’ Career Clusters
www.careerclusters.org/

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### The Process

1. Identify the agricultural, food, or natural resource (AFNR) concept
   - What are you teaching?

2. Identify the “enabling” core concept
   - What fundamental science, technology, engineering, or mathematics concept is required for the AFNR concept to be taught?

3. Describe the connection between the two concepts
   - How are the two concepts related?
   - Why can’t one function without the other?

4. Implement the deductive model to teach the lesson
   - Follow the six steps that are included in the deductive model to teach about the AFNR concept

### Example

<table>
<thead>
<tr>
<th>AFNR Concept</th>
<th>Nutrient exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Subject Concept</td>
<td>Cation exchange capacity</td>
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#### AIMED Approach

Soils are for the most part negatively charged, due to the chemical structure of clay particles in soils. The amount of negative charge on a given soil depends upon the amount the type of clay minerals present and the organic matter content. The total amount of negative charges in the soil can be measured and is called the cation exchange capacity. The net negative charge in the soils is permanent and is not changed by the addition of fertilizers. Higher soil pH tends to enhance this negative charge. Nutrients exist in the soil as ions (electrically charged atoms or group of atoms). Thus, soils act as a cation exchanger and will attract positively charged cations such as Ca$^{2+}$, Mg$^{2+}$, and K$^+$.  

### Reference