

PLANT CONNECTIONS

ideas

skills

INSIGHTS

Use this guide to organize "plant connections" that can:

- help the students gain insights into plants
- assess student knowledge
- reinforce students skills

This approach is adaptable to any content area.

IDEA CHOOSER

Each of these concepts is a way to interpret, explain, and understand plants. They are ways to structure experiences.

Select one idea from this list as the focus for your project.

*If you decide to do an exhibit, then you can add more ideas as you add more sections, or "windows" into the world of plants. Remember that the exhibit will have many windows and that it is **never** finished.*

growth

diversity

cycles

work

interdependence

values

(another concept--your choice)

SKILL CONNECTOR

People learn ideas when they USE them, especially when they use them to figure out situations, classify things, make predictions, put together booklets or exhibits.

To get students to learn the key idea that your chose, select a skill and then organize a project in which students use that skill to make Plant Connections--to comprehend this concept as they learn about specific plants. Write questions or directions to organize a project that will enable learners to really comprehend this concept by using it.

We recommend that you do NOT introduce a new skill when students are learning a new concept or about a new topic. Have them apply a skill they already have learned so that they increase their level of proficiency with that skill and focus on the topic and the idea you are developing.

Skills: This is a very brief list of skills--there are many skills students can use to work with to make connections between concepts and plants. You decide which skills to develop. You can ask questions/give directions that integrate several skills. In fact, if you have your students create their own plant exhibit, then you have enabled them to learn several ideas and expand many skills.

- Locating information to support an idea (doing research on a kind of plants, such as vegetables)
- Constructing a chart/graph (such as of plant growth)
- Writing an expository paragraph that describes a specific plant.
- Giving examples of an idea (such as plant growth)
- Making a visual representation of an idea (such as the diversity of plants)
- Making predictions (about plant growth)
- Clarifying values (such as making a poster about plants to communicate a sense of responsibility for the well-being of other living things)

WRITING SCIENCE

Here is an example of connecting a concept to situation – and developing student skills.

Students follow these steps to make a booklet about a science topic.

1. Choose a topic: *plant growth*

2. Identify the most important ideas about this topic.

- Plants need sun and water to grow
- Plants can grow even without soil
- Different types of plants grow at different rates
- A warm climate is better than a cold climate for growing plants

3. Write concise explanations of those ideas.

As much as possible, include examples. (Encourage students to include Chicago examples so they continue to "see" these concepts in their own environment.)

FACT/IDEA

Plants need sun and water to grow

EXPLANATION

Plants create their food using sun, water and elements that they get from the soil. You'll notice that if a plant is placed in the shade, it'll grow slower than if it's placed in a sunny spot. Also, if you stop watering a plant, you'll see that it will dry up and die.

Chicago example: What plants grow here in January?

Plants can grow even without soil

Plants can grow in water if the necessary nutrients are provided. If the stem of a plant is placed in a glass of water you'll see that it'll grow roots.

Chicago example: What plants grow in the lake or river?

4. Make a list of the sections you'll include in your book.

Organize the book so that the facts/ideas are presented in logical sequence. Use questions or headlines to organize each page. (Here is an example.)

1. *What is a plant?*
2. *What do plants need to grow?*
3. *Some plants live without soil!*
4. *What plants grow well in Chicago?*
5. *Tell the story of a Chicago plant, from spring through winter.*

5. Write the book.

Students may work on this individually, with each student taking a page, or in pairs or teams.

6. Illustrate the book.

Draw pictures or find them in newspapers and magazines. Encourage students to include graphics for their sections. For example, section 5 (a Chicago plant's year) could be set up as a 12-part calendar or as a time line.