

The Life Cycle of a Plant:

Is it really so much different than ours?



A 2nd Grade Science/Technology Web Quest/Journal

Notes and Observations By: _____



November 2014

Introduction



Welcome to the amazing world of **botany** (the study of plants). Your mission is to observe and draw conclusions about the life cycle of a flowering plant. Then, you'll decide with your partner how a plant's life cycle is different from an animal's.

Your science compelling question(s) for this study are:

How do plants change their forms as part of their life cycles?

And:

- ◆ What are the conditions under which a seed will germinate and grow?
- ◆ How are animal and plant life cycles alike and different?

For Information, Communication and Technology you will:

I- Use a graphic organizer to gather and sort information.

C- Use a variety of ways to present your information and observations.


T- Participate in an online learning experience.

You may turn and talk with your partner about your investigations (research) on the Internet. Then, you can enter your ideas and observations in this journal.



The Seed

Listen to Eric Carle's *The Tiny Seed*

Think:  How do you adapt to our changing environment/ seasons in Fairfield? Think about it, then write your response.



What would happen if you didn't adapt to the changing environment in Fairfield? Think about it and then write.



Do you think plants are better at adapting to changing conditions than people are? Explain why or why not.



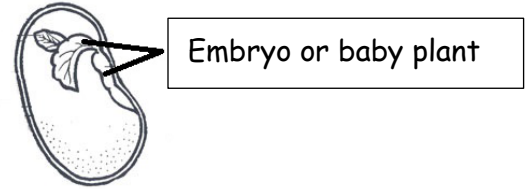
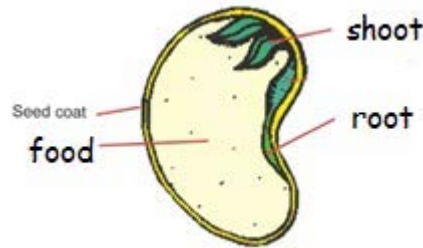
2 At your tables, we will look at this link from England to learn about what's inside a plant's seed. **Listen to the paragraph!**

<http://theseedsite.co.uk/seedparts.html>



Besides the new root and shoot/stem, what's inside the seed? Why is this needed?

Carefully look at the 2 diagrams.



What 2 seed parts make up the embryo (baby plant)?

s _____ + r _____ = embryo

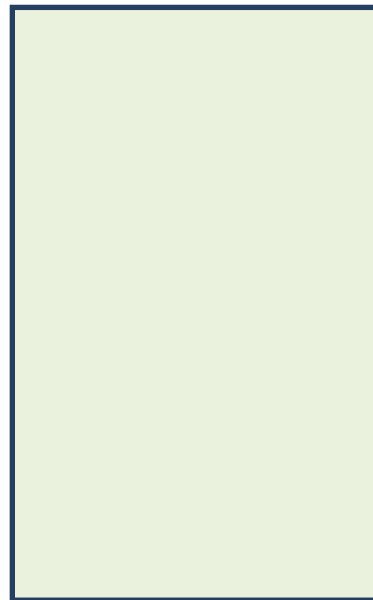
3



In the lab watch the BrainPopjr movie "Parts of a Plant":

<http://www.brainpopjr.com/science/plants/partsofaplant/preview.weml> Then use the space below to draw a flowering plant. Label the parts and tell what role each part plays in helping the plant. (Talk to your partner first.)

Seeds



Flower

Stem

Leaves

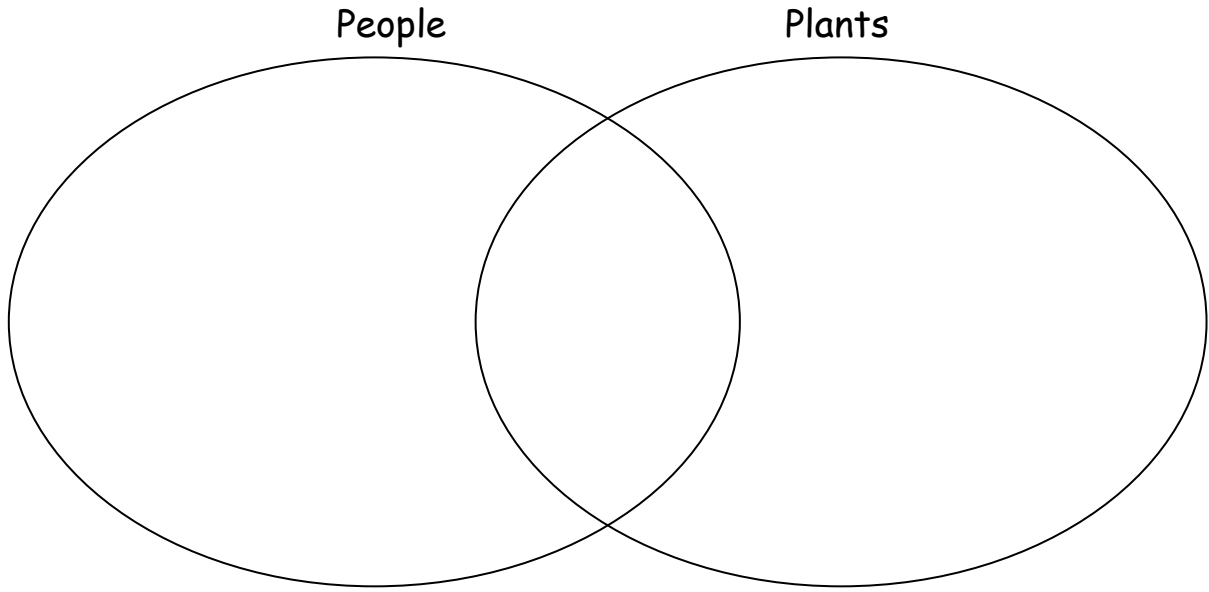
Roots _____

4



Below is a Venn diagram. Scientists often use these to compare and contrast things. Let's use it to compare and contrast people and plant needs. Things that both people and plants need go in the middle area. Quietly talk to your partner then use these words to fill in your Venn diagram.

water air sunlight sleep soil exercise food love



Can you and your partner think of other needs to add?

5



Let's use a game (BrainPop's Gameup) to learn how light, air and water effect plants. Click on the link below and play the game. Make predictions with your partner. Then circle the best choices to make the plant grow.

<http://www.brainpop.com/games/whatplantsneed/>

Light: white red blue green black

Gases: carbon monoxide Oxygen Nitrogen Carbon dioxide and oxygen

Liquid: soda water salt water vinegar

6



Watch the following Brainpop Jr. video about plant adaptations!

<http://www.brainpopjr.com/science/plants/plantadaptations/>

Now use what you know about the life cycles and adaptations of people and plants. Look at the human drawing and the plant picture. What advantages or things that help them survive, does a human have? Does a plant have any advantages? What helps them to adapt and survive?



Human advantages

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Plant advantages

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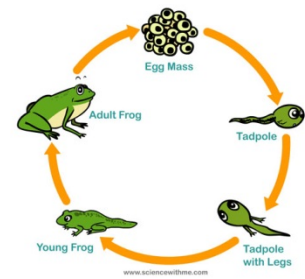


On the top menu bar, Click on the tab for *Grade 2 Life Cycle of a Plant* to return to the main page in the Virtual Library. Scroll down and watch the *Seed Growth Video*. Use the pause button to stop the action and determine, with your partner, at least 5 important stages, then draw them in your life cycle at the bottom of the page.

You can also watch the *Life Cycle of a Bean* video to decide on your 5 important life stages:

Use the drawing of the life cycle of a frog to give you hints for developing your own drawing of the life cycle of a flowering plant. Talk to your partner, draw (and label) the plant cycle as accurately as you can.

Botanists do!



How do plants change their form as part of their life cycle?
