

PART III - Seed Planting

1. Procedure: Place seeds about 1/2 inch deep in the soil and about 2 inches apart in the pot. Place the pots in a warm, sunny place and water just before the soil gets dry.
2. Date started _____
3. Predict which seeds will be the first to sprout. _____

Day	Observation

4. What do seeds need to grow?

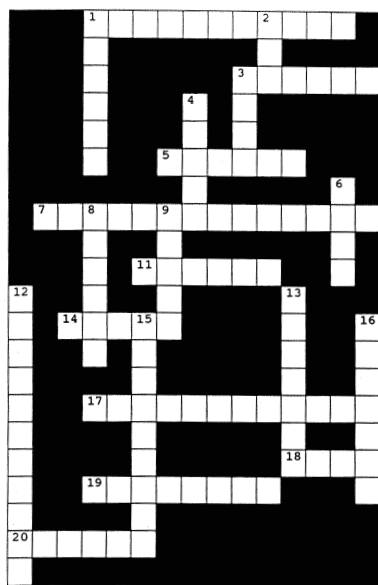
5. What would you do differently if you did this experiment again? How would it affect your experiment?



ISBN: 978-1-55319-001-1

PLANTS CROSSWORD

Name _____



CLUES

Down

1. Yellow powdery grains that sometimes cause allergies.
2. This type of root is found in radishes and carrots.
3. Gives support, transports water.
4. This forms a fruit after pollination. Some plants are pollinated by animals - others are pollinated by this.
8. Plants produce this gas as a waste product when they make food.
9. These are made when pollen unites with egg cells.
10. A green chemical needed for photosynthesis.
12. Growing plants without soil.
13. This type of root is found in grass.
15. Nitrogen, potassium and phosphorus are examples of this.
16. Spruce trees and pine trees have this type

Across

1. When the pollen reaches the pistil.
3. Ferns and mosses.
5. Needed to keep a plant alive.
7. "Making with" a flower.
11. A type of attachment.
14. These plant parts are "feet".
16. A bee's favourite.
17. This gas is used by plants to make food.
18. If a farmer had 14 apple trees and a but seven died, how many trees did farmer have left?
19. Needed for photosynthesis to happen.
20. This desert plant has spiny leaves.

ISBN: 978-1-55319-001-1

CARNATION SENSATION

Name: _____

1. Purpose: The purpose of this experiment is to discover the uses of _____
2. Materials: _____
3. Procedure: _____
4. Observations: What happened to the carnation after being in the _____
5. Draw and label what your experiment looked like.
6. Conclusions: Why did this happen?

7. What are two purposes of plant stems?

ISBN: 978-1-55319-001-1

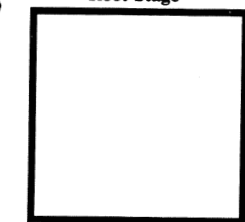
12

1. Draw a picture of a plant showing its leaves and stem.

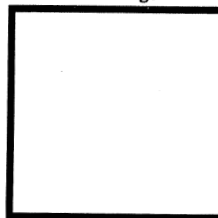
Leaves and Stem



Root Stage



Seed Stage



2. What is a cycle?

3. Describe the life cycle of a bean plant.

PLANT PICTOGRAMS

Name: _____

Instructions: Try to solve the following picture puzzles about plants:



31

©rainbowhorizons.com

FLOWER POWER

Name: _____

1. This is a diagram of a petunia and its parts.
 - a) How do the petals feel? _____
 - b) What color are the petals? _____
 - c) Are they the same color all over? _____
 - d) Name the yellow substance at the end of the stamen. _____
 - e) Find the pistil. Cut open the pistil's ovary to see the tiny eggs.
 - f) If the eggs join with a grain of pollen, what will they become? _____
 - g) Why is the tip of the pistil often sticky? _____
2. Dissect a flower. Pluck off the petals first.
 - a) How do the petals feel? _____
 - b) What color are the petals? _____
 - c) Are they the same color all over? _____
 - d) Name the yellow substance at the end of the stamen. _____
 - e) Find the pistil. Cut open the pistil's ovary to see the tiny eggs.
 - f) If the eggs join with a grain of pollen, what will they become? _____
 - g) Why is the tip of the pistil often sticky? _____
3. Pollination (Fill in the blanks below)

Pollen forms at the end of the _____. Pollen is _____ and powdery. Pollination happens when the _____ from the stamen of one flower reaches the _____ of another flower. The pollen travels from one flower to another by _____ or on the bodies of _____. Insects are attracted to flowers by their _____ and _____. While bees gather _____ from a flower (to make honey) they pick up _____ on their bodies and legs. They carry this pollen to other _____. After flowers have been pollinated they lose their _____. The ovary swells and develops into a _____ which contains the seeds inside.
4. Why are insects important to farmers and fruit growers?

ISBN: 978-1-55319-001-1

17

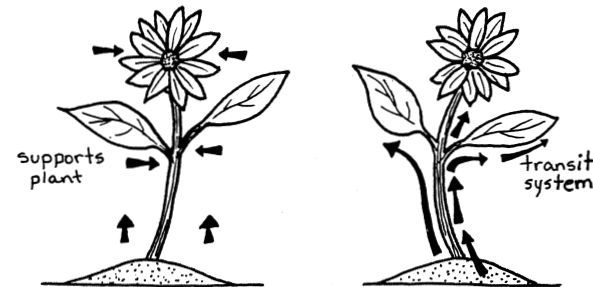
©rainbowhorizons.com RHPA70

- | | |
|--|----------------------|
| a) Protects the seed | _____ OVARY |
| b) Absorbs water and nutrients from soil | _____ LEAVES |
| c) Part of the seed that grows into the stem and roots | _____ VEINS |
| d) Supports the plant, transports water | _____ NUTRIENTS |
| e) Contains the ovary and eggs | _____ PHOTOSYNTHESIS |
| f) Produces pollen | _____ ROOTS |
| g) A sweet liquid at the center of most flowers | _____ SEED LEAVES |
| h) Yellow, powdery grains containing sperm cells | _____ PETAL |
| i) Provides food for the seedling | _____ SEED COAT |
| j) "Food Factories" for the plant | _____ CELLULOSE |
| k) The reproduction center for the plant | _____ OXYGEN |
| l) Carbon Dioxide + Water + Sunlight - Sugar + Oxygen | _____ NECTAR |
| m) A useful product of photosynthesis | _____ POLLEN |
| n) A green chemical needed for photosynthesis | _____ STEM |
| o) Gas "breathed in" by plants during photosynthesis | _____ FLOWER |
| p) Used to transport food and water inside a leaf | _____ PISTIL |
| q) The colorful part of the flower | _____ EMBRYO |
| r) Plants are made up mostly of this | _____ CARBON DIOXIDE |
| s) _____ | _____ STAMEN |
| t) _____ | _____ CHLOROPLAST |

Parts of a Plant: Stem

One purpose of a stem is to help the plant stand up and to support the leaves and flowers of a plant. The stem helps to keep the leaves off the ground and in the sunshine.

A second purpose of the stem is to transport water and nutrients from the roots to the leaves where food is made.



Some plants have soft stems which die in the fall and sprout again in the spring. Others, such as trees and shrubs, have woody stems which last the entire lifetime of the plant.

SUMMER

WINTER

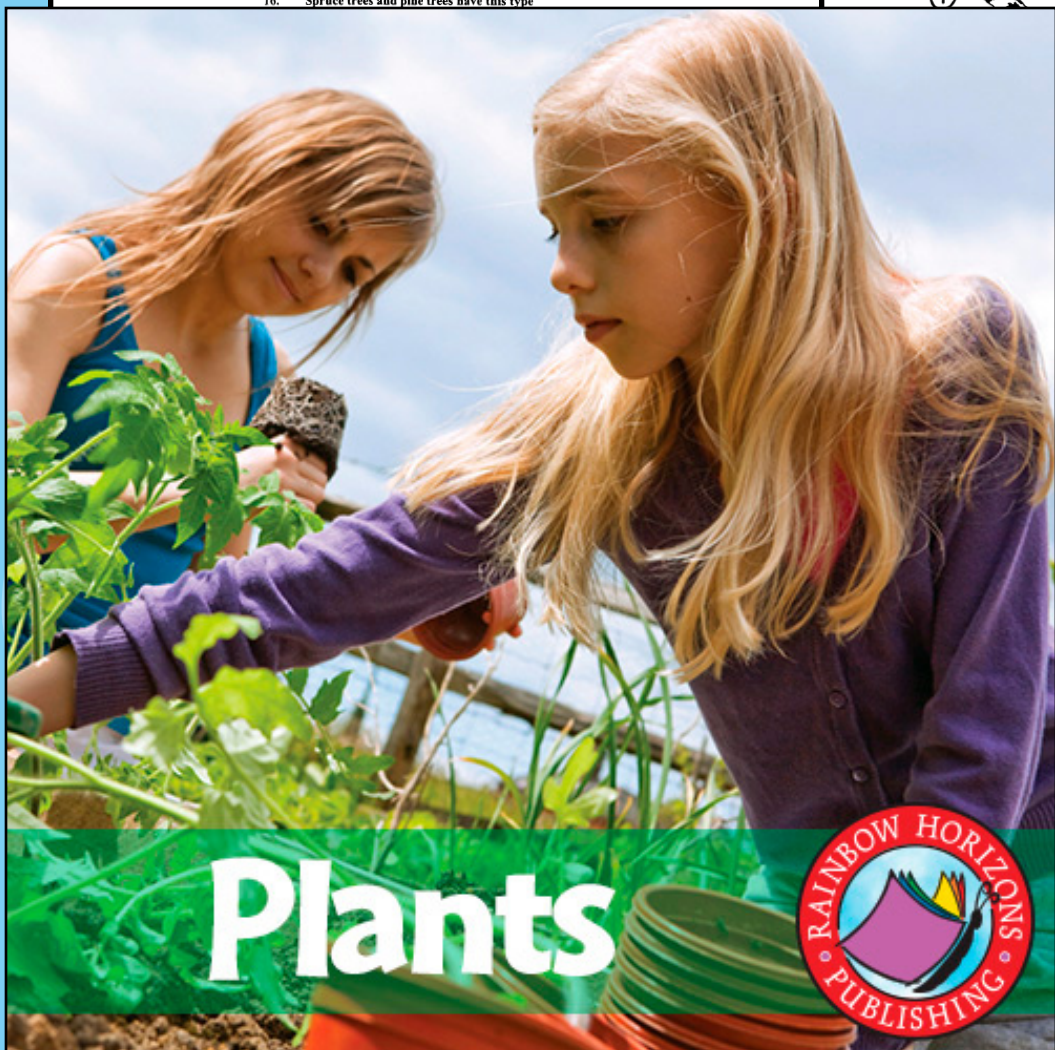


Factfile: The stem of the giant redwood tree found along the west coast of North America can be as long as 120 yards. The wood contained in a tree this large can provide lumber to build 24 brand new homes!

ISBN: 978-1-55319-001-1

39

©rainbowhorizons.com RHPA70

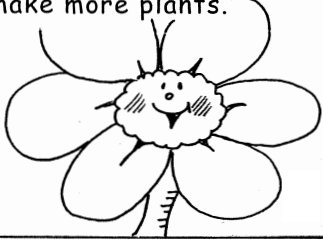


Plants



Instructions: Cut out the book pages on the lines. Looking at the page number the right order. Staple the pages together on the left side. Finish the book.

I have a _____ that makes seeds to make more plants.



I have a _____ that holds me up and carries water and food to my leaves.



Make a Book

Cut out the pages of the book. Stack them in order by looking at the page numbers. Staple them together at the top. Now you can finish the pages of your book with drawings, blanks and colouring the flowering parts.

ISBN: 978-1-55319-130-8

6

My Name is Herb and I Like to Plant and Grow Herbs

My name is _____



My name is Herb. I like to plant and grow herbs.

Can you draw a few things that Herb might need to grow his herbs?

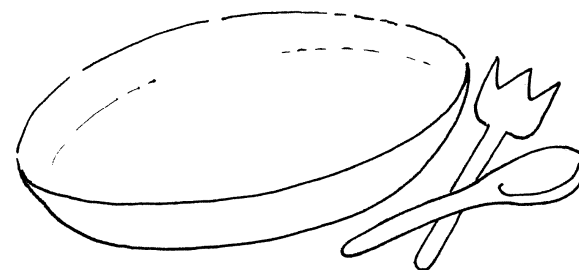


ISBN: 978-1-55319-130-8

10

I like to grow basil. I add basil to my salad.

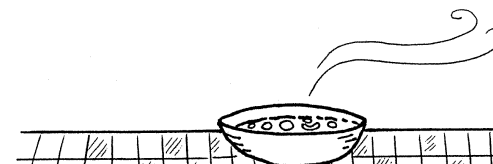
Can you draw and colour a leafy green salad?



2

I like to grow dill. I add dill to my soup.

Can you draw a member of Herb's family eating this bowl of delicious, hot soup?



3

ISBN: 978-1-55319-130-8

11

©rainbowhorizons.com RHP282

Song

I Love to Eat the Parts of a Plant
Sing to the tune of *The Wheels on the Bus*

I love to eat the stem of (celery)
The stem of (celery),
The stem of (celery),
I love to eat the stem of (celery)
When I go home to dinner.

In the next verse, change the parts of the plant.

eat the seeds of a plant.

eat the flowers of a plant.

eat the leaves of a plant.

eat the stems of a plant.

ISBN: 978-1-55319-130-8

Go through the Farmers' Market and buy plant parts. For two to three players, you will need a die, a marker for each player and a set of fruit and vegetable pictures, spread out and placed face up.

Farmers' Market

Start

Seeds

Leaves

Roots

Flowers

Seed Coverings

Player rolls the die and moves their marker. Follow the directions on the board. Buy a plant-part square, fruit or vegetable card. If you land on ROOTS, buy a vegetable where the root is.

Stop for ice cream. Miss one turn.

Time to rest. Go back two spaces.

45

©rainbowhorizons.com

Name _____ Date _____

Life Without Wheat

Wheat is the most important cereal grain. Without wheat to make flour, we would have to give up many delicious foods.

You will find a list of foods that you would have to give up. Can you find them in the word puzzle? Circle each letter in each word you find and then cross it off the list.

- cereal muffin bread bagel pita waffle
- cake pie spaghetti cookies



Z V M U F F I N O D
O X C O O K I E S L
C W K B D E P I E K
B R E A D C I V U S
S P A G H E T T I M
Q E C E B R A F G Z
Z Q A L D E X P D U
R R K B W A F F L E
G W E Q Z L W M C K



ISBN: 978-1-55319-130-8

58

©rainbowhorizons.com RHP282



Plant Power

