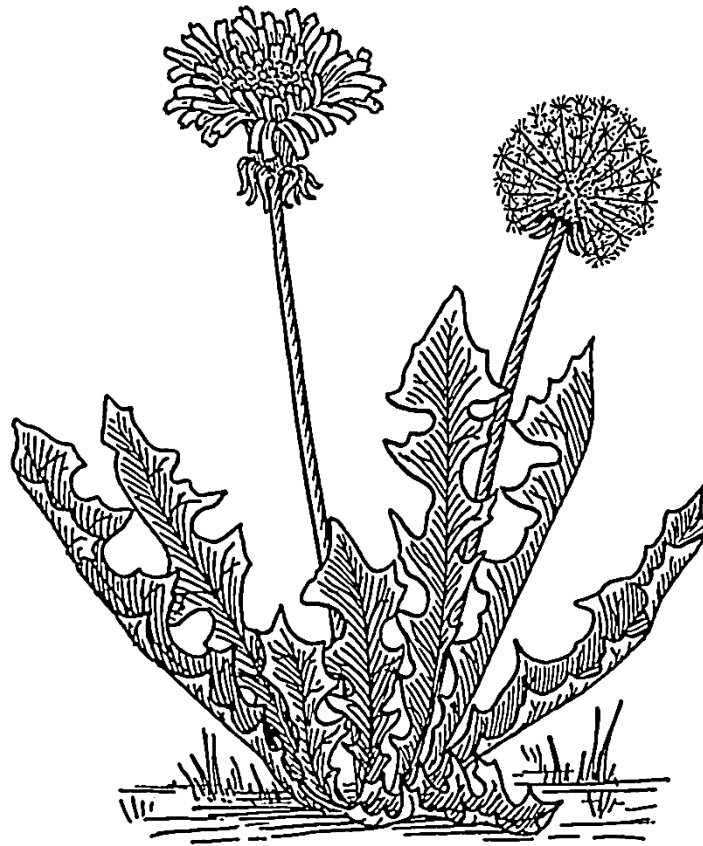
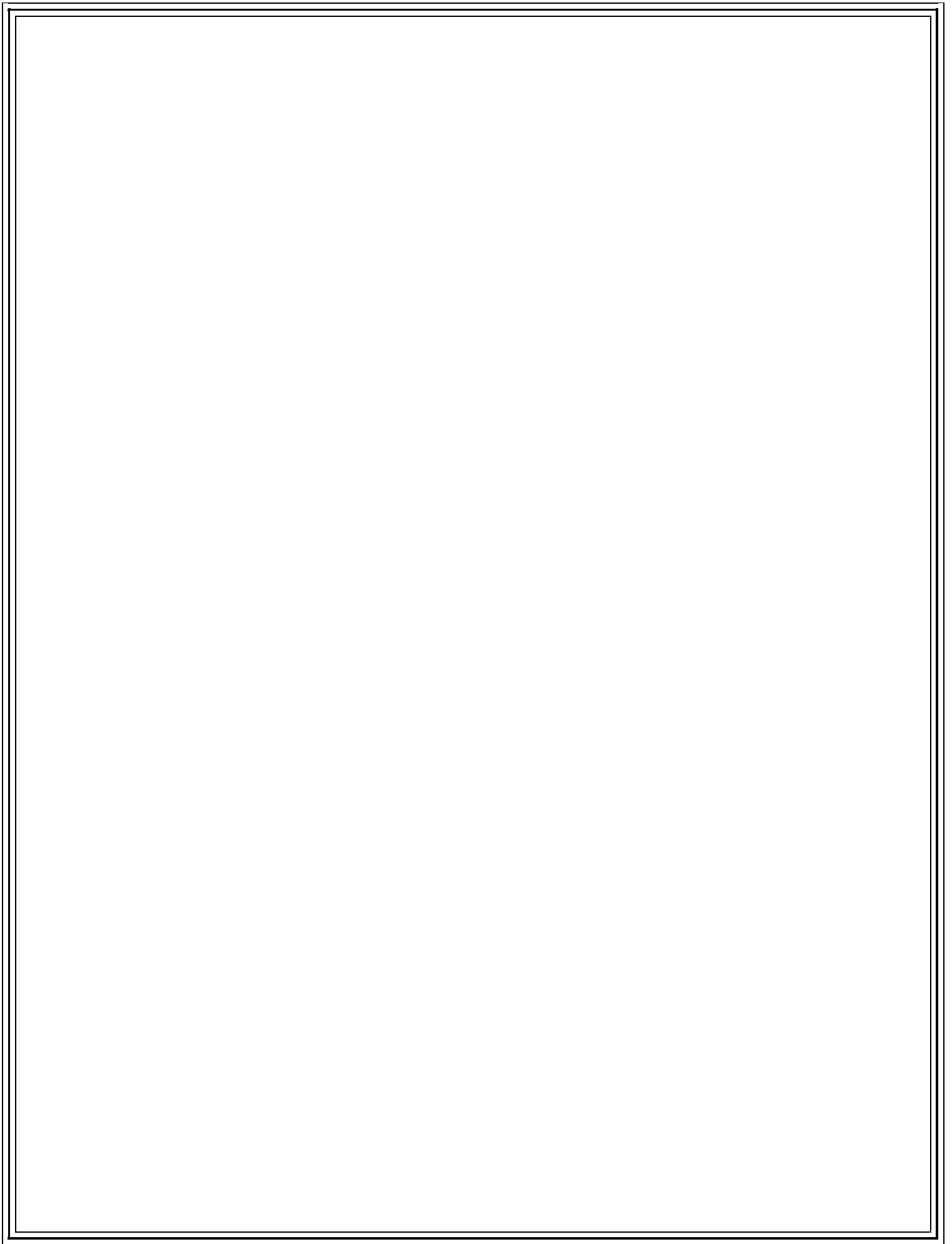


# Seed Dispersion



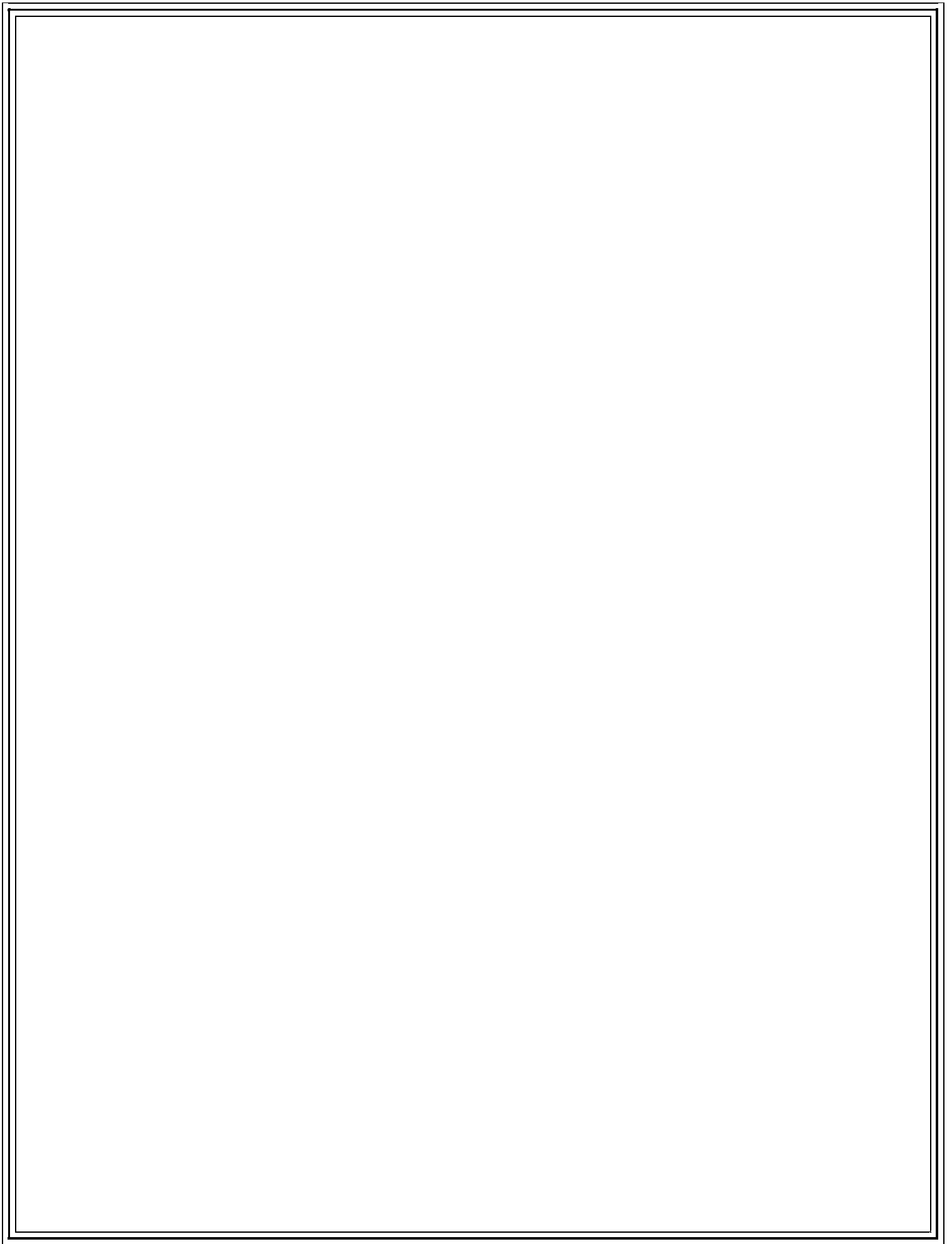
~A Guided Study~

by Lisa Kelly



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## Please read these notes.

### **Author's Notes**

When using this guide, the greatest emphasis should be placed on using it in a manner that is best for the student(s). It is designed to be flexible enough to use with children from ages 5 to 8, but please adapt as needed. This makes it appropriate for young children of varying reading, skill and interest levels as well as helpful for combining younger children together, particularly children in the Foundations level.

The narration suggestions listed in the section under “After the Reading” reflect these variations. Some children will need only the gentlest and lightest of narrations suggestions with little to no writing, while other children will need narration suggestions which include more writing or digging deeper into creative or reflective style narration suggestions.

Multiple suggestions are offered so that the teacher and the student can choose one (or sometimes two) from a variety of suggestions. Please do not expect your students to respond to all of the narration prompts listed under each reading.

Oral narrations are the primary method for building attention and composition skills. In general, narrating orally should be the method used on most days and for most subjects, particularly for this level. The narration suggestions included offer a variety of ways for the teacher to allow the students to tell what they know orally as well as offer some ways for alternative approaches-such as written, dramatic/role play, descriptive and creative. These alternative approaches need only be used occasionally –or as children show interest.

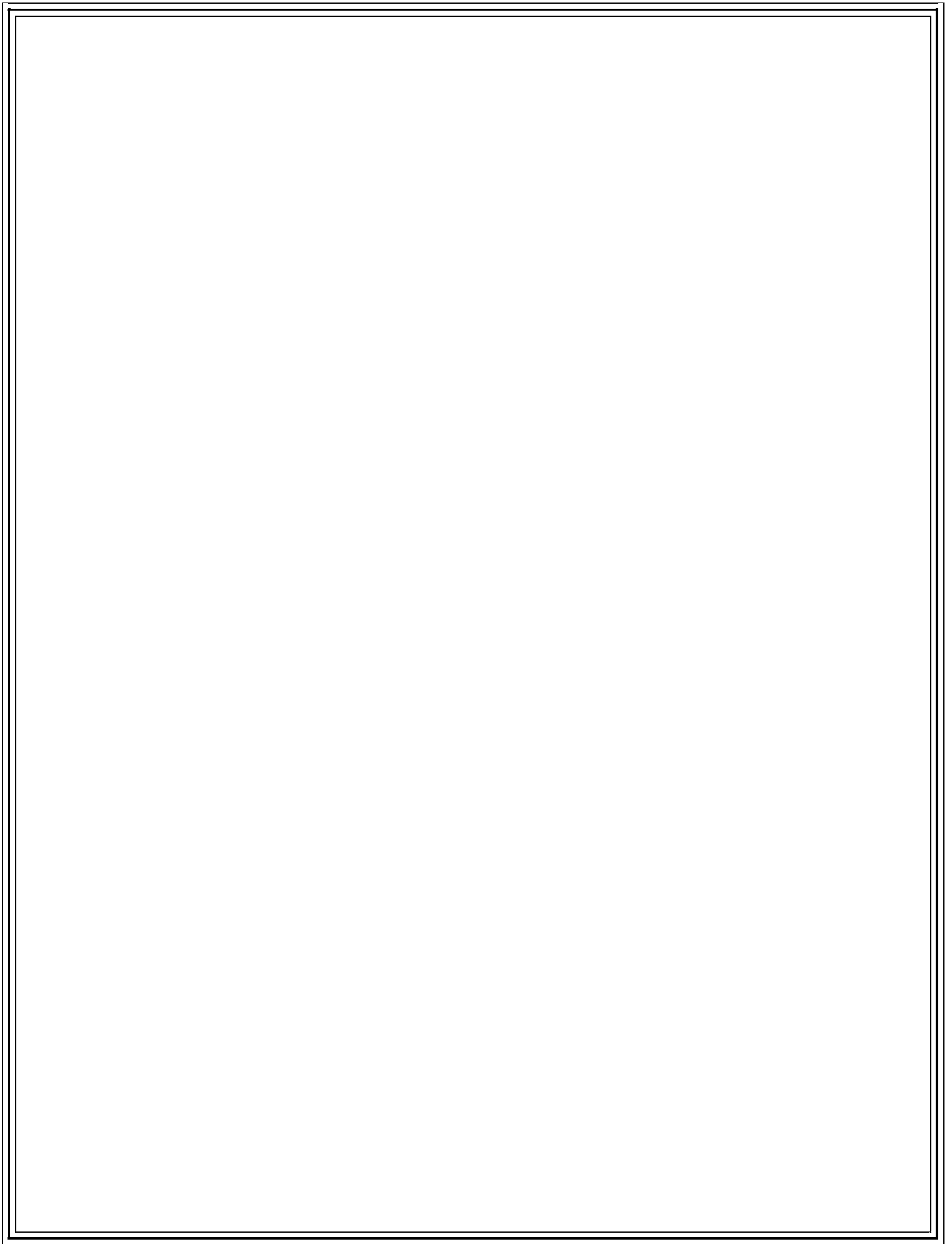
Feel free to adapt any narration suggestion as needed. An older student may have an interest in a narration suggestion which can be altered to make it more appropriate, such as turning a suggestion meant to be given orally to one that is written.

Some scheduled object lessons are included in *Foundations: The Outline Guide for Early School*. If students have already completed some of the suggested object lessons [perhaps as a Pre-Preparatory or Preparatory student], then give the lesson, but encourage students to look for something new about it or draw a different part of it. For example, if students have already drawn the dandelion as a flower, then consider having them drawing the leaf or the akene instead. Object lessons can certainly be used over again.

If you have any questions, comments or concerns, please feel free to email me through the contact section of the website or send me a message through Instagram.

Thank You,

Lisa Kelly



# Book List

*From Seed to Plant* by Gail Gibbons

*The Dandelion Seed* by Joseph P. Anthony

*A Seed is Sleepy* by Dianna Aston

*Little Wanderers* by Margaret W. Morley [selections]

## Optional Book List

*The Seasons of Arnold's Apple Tree* by Gail Gibbons

*How Do Apples Grow?* by Betsy Masetro

*From Seed to Pumpkin* by Wendy Pfeffer

*Miss Rumphius* by Barbara Cooney

*Miss Maple's Seeds* by Eliza Wheeler

*Little Dandelion Seeds the World* by Julia Richardson

*A Dandelion's Life* by John Himmelman

*Dandelions: Stars in the Grass* by Mia Posada

*The Dandelion's Tale* by Kevin Sheehan

*Monarch Butterfly* by Gail Gibbons

## Reading Schedule –One Term

Week #	Day One	Day Two	Day Three
1	<i>From Seed to Plant</i> by Gail Gibbons	OL –Bean Seed	<i>Little Wanderers</i> “Why Plants Travel”
2	OL –Dandelion	<i>Little Wanderers</i> “Dandelions”	<i>The Dandelion Seed</i> by Joseph P. Anthony

## Reading Schedule –One Semester

Week #	Day One	Day Two
1	<i>From Seed to Plant</i> by Gail Gibbons	OL –Bean Seed
2	<i>Little Wanderers</i> “Why Plants Travel”	OL –Dandelion
3	<i>Little Wanderers</i> “Dandelions”	<i>The Dandelion Seed</i> by Joseph P. Anthony

## Reading Schedule –One Year

Week #	Lesson
1	<i>From Seed to Plant</i> by Gail Gibbons
2	OL –Bean Seed
3	<i>Little Wanderers</i> -“Why Plants Travel”
4	OL –Dandelion
5	<i>Little Wanderers</i> -“Dandelions”
6	<i>The Dandelion Seed</i> by Joseph P. Anthony



## Lesson 1/ *From Seed to Plant*

- ❖ Read *From Seed to Plant* by Gail Gibbons

### Before the Reading

- ❖ Tell what you know of a plant.
- ❖ Words to Know: pollination, germination and seed dispersion
- ❖ Spend some time discussing the labeled flower pages in the book. Point to and read the labeled parts as you read the text.
- ❖ Be sure to read the “Seeds and Plants” notes at the end of the book.

### After the Reading

- ☐ Tell about pollination.
- ☐ Draw or paint a picture of any concept from the book. Give your picture a title or caption and add labels as needed. Share your picture with someone, telling about it.
- ☐ Describe the journey from seed to plant.
- ☐ Have you ever planted a seed and watched it grow? Tell about this.

### Additional Activities

- ❖ Complete the “From Seed to Plant” project at the end of the book.

## Lesson 2/ Object Lesson –Bean Seed

Complete the object lesson for the bean seed.

**Prepare** –soak some lima beans overnight; print the student notebook page, as needed

**Materials** -soaked lima beans, dry lima beans, cutting board or tray, paper towels and optional magnifying lens

### Do

Lay several lima beans –both soaked and unsoaked –on a cutting board or tray.  
Compare a dry bean to one that was soaked overnight.

### Consider

- How is the dry bean different from the soaked bean? What was done to the soaked bean? How might this cause the differences in the two beans?
- What do you think is inside of the lima bean –especially the soaked bean?

Carefully open the seed to split it in two halves.

Study the opened bean. Use a magnifying glass for a closer inspection, if you'd like.

### Consider

- Describe what you see in the opened bean.
- Which part of the tiny plant or *embryo* inside will grow into a leaf and which part will grow into a root?
- Of what use is the *seed coat* or *testa*?
- Of what use is the rest of the material inside the bean or the *cotyledon*?
- Which, if any, of these parts could the plant live without? Tell about this.

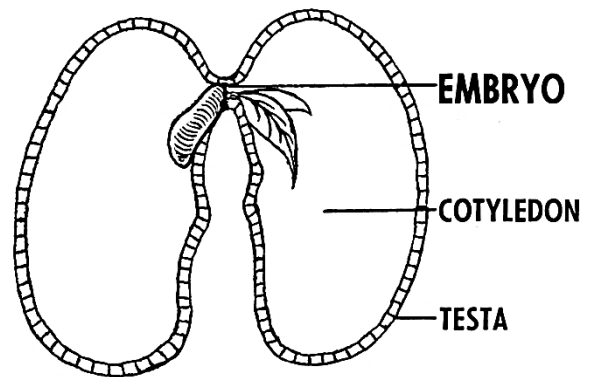
### OPTIONAL -Write

Have students complete the printed notebook page by drawing both halves of one opened bean and labeling it. Use the labeled bean on the right side of the page as a guide.

Name\_\_\_\_\_

Date\_\_\_\_\_

## Lesson 2: Object Lesson –Bean Seed



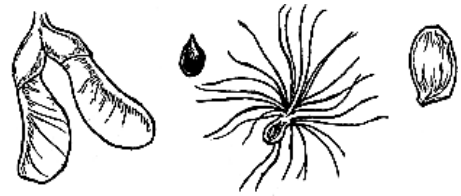
Additional Notes or Pictures

## Lesson 3/ *Little Wanderers*

- ❖ Read “Why Plants Travel”

### Before the Reading

- ❖ Tell how plants grow from a seed.



### After the Reading

- ☐ Tell why plants travel.
- ☐ What would happen if plants could not travel while they were seeds?
- ☐ Should animal babies leave their parents as soon as they are born?

## Lesson 4/ Object Lesson –Dandelion

Complete the object lesson for the dandelion.

### Dandelion

*For the first part of the lesson, you will need dandelion flowers, and for the second part, ripe dandelion heads that are open, — both brought by the pupils if possible.*

#### 1. A DANDELION FLOWER

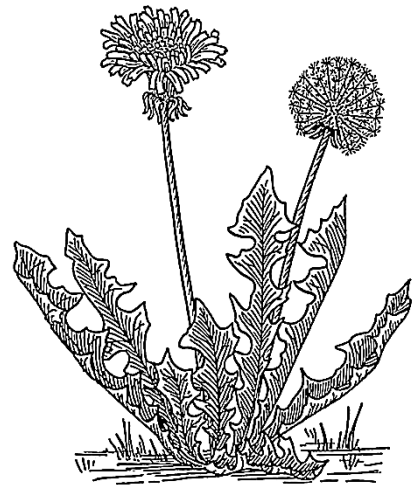
##### Observations

How large is a dandelion head? What is its shape? What is its color? What is its odor? About how many colored petals has it?

Break apart a head and take one of the yellow petals. What is the shape of the petal? Notice the slender stalk that rises from the center of the petal. Into how many parts is its tip split? Where is the greenish seed to which the petal is fast?

Look carefully at the green fringe underneath the flower. About how many points has it?

How long is the flower stalk of the dandelion that you are studying? What is its color? Is it solid or hollow? Is it hard or soft? What is the color of the juice?



*Teachers can make these drawings on a large sheet of paper or board, having the children help as they wish.*

## Drawings

- Draw a dandelion flower, showing its colored petals, its green fringes, and its stalk.
- Draw also a single one of the colored petals and its seed.

## 2. A RIPE DANDELION HEAD

Have you ever blown a ripe dandelion head to pieces to see if your mother wanted you? If you have, the dandelion probably told you more about itself than it did about your mother.

### Observations

On how tall a stalk is the ripe dandelion head? What is the shape of the head? What is its size? Of what is the head composed?

Where are the dandelion seeds? About how many seeds are there? What is the shape of the part of the flower stalk to which the seeds are fastened? What is its size? Notice the fringe just beneath it.

Pull a seed off from a head. What is the size of the seed? What is its shape? What grows from its top? Blow a seed away from you and notice the manner in which the seed floats through the air. With which end up does it alight? Of what use does the fluff seem to be to the seed?

## Drawings

- Draw a picture of a ripe dandelion head, and another picture of a single seed.

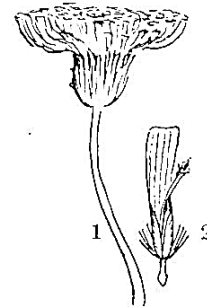
-From *Nature Study: A Pupil's Textbook* by Frank Overton

## Lesson 5/ *Little Wanderers*

- ❖ Read “Dandelions”

### Before the Reading

- ❖ Why must seeds travel?
- ❖ Words to Know: plume and akene
- ❖ Tell students that they are now going to learn about seeds which fly with plume or down.



1. A cluster of flowers.  
2. One flower (magnified).

### After the Reading

- ☐ Tell all that you know about the dandelion.
- ☐ Draw or paint a picture of any concept from this chapter. Give your picture a title or caption and share it with someone, telling about the scene you’ve illustrated.