

Native Flowers of Indiana

Resources, Ideas, and Teaching Suggestions

Thank you for your interest in the Common Native Flowers of Indiana booklet. The booklet was designed with grades 3-5 in mind, but will be found enjoyable by readers of all ages! This guide is intended to be used in conjunction with the booklet and contains web links to additional resources, ideas that can be implemented in and out of the classroom, and lesson ideas for ELA, Math, and STEM. Please feel free to share all materials with anyone you think might enjoy them. Further free materials and booklets can be found on my website at <https://www.shawnpsullivan.com/NativeIndiana>. Enjoy!

Additional Teaching Resources

- Contact your local county Purdue Extension office to see about having a master gardener come talk to your class. <https://extension.purdue.edu/about#counties>
- The Indiana Native Plant Society has an informative website as well as sponsors “Letha’s Youth Outdoors Fund”, which provides financial support for educational trips to experience nature for school and non-profit youth groups. <https://indiananativeplants.org>
- Don’t print the cover and instead buy “seed paper” and have the students create their own cover for the book. When done, they can plant the cover and it will grow flowers!
<https://www.botanicalpaperworks.com/catalog/seed-paper/8-5x11/0175/seed-paper-package>

ELA

Included in this guide:

- Writing a Native Flower Cinquain
- Comparing Native Flowers venn diagram
- Design Your Own Native Flower worksheet/ writing prompt
- Two blank writing prompt worksheets
- Comprehension Worksheet
- Vocabulary Worksheet
- Vocabulary Quiz

Writing Prompt Ideas:

- Imagine if all flowers were 20 feet tall. Describe what life would be like.
- Write about your favorite native flower.
- Imagine you were a flower for a day. Describe what the day would be like.
- Write a poem titled, “If I were a flower...”
- Write a letter to your local parks department to persuade them of the importance and need to plant more native flowers in your local parks.
- Write a story titled, “The Special Flower”

Additional Literature Connections:

- The Secret Garden by Frances Hodgson Burnett
- Trees Leaves, Flowers and Seeds: A Visual Encyclopedia of the Plant Kingdom by DK, Smithsonian; isbn: 9781465482426
- From Seed to Plant by Gail Gibbons; isbn: 9780823410255
- Harlem Grown: How One Big Idea Transformed a Neighborhood by Tony Hillery; isbn: 9781534402317

MATH

Included in this guide:

- Native Flower Fractions worksheet
- The Native Flower Garden coordinated grid worksheet and map
- Blank garden map coordinate grid

Additional Ideas:

- Create bar, line, or pie graphs from information in the booklet, such as by color or size
- The fractions worksheet can instead be done for percentages
- Draw a garden given a set area or perimeter. How many ways can it be done?
- “Create your own story problem” in groups or individually, trade and solve.

STEM

Included in this guide:

- Choose 3 plants for pioneer garden prompt
- Design Your Own Native Flower worksheet/ writing prompt

Additional Ideas:

- Go on a nature walk to look for native flowers
- Go on a sensory scavenger hunt. For example, “find a plant that feels soft”.
- “Dissect” a flower to talk about the parts of a flower
- Keep a plant journal - sketch the plant they see and write down what, where, and when they saw it.
- Use crayons to make rubbings of leaves

Native Flower Cinquain

A cinquain is a poem that follows a five-line pattern. Choose a flower from your *Common Flowers of Indiana* booklet and use what you learned to write a cinquain about that flower.

Choose a Flower

1. What flower did you pick? _____

2. What are some adjectives that describe the flower? _____

3. What are some things the flower does? _____

4. What makes this flower special? _____

5. What do you like best about this flower? _____

6. What are some synonyms or words that relate to flowers? _____

Write a Cinquain About Your Flower

(flower's name)

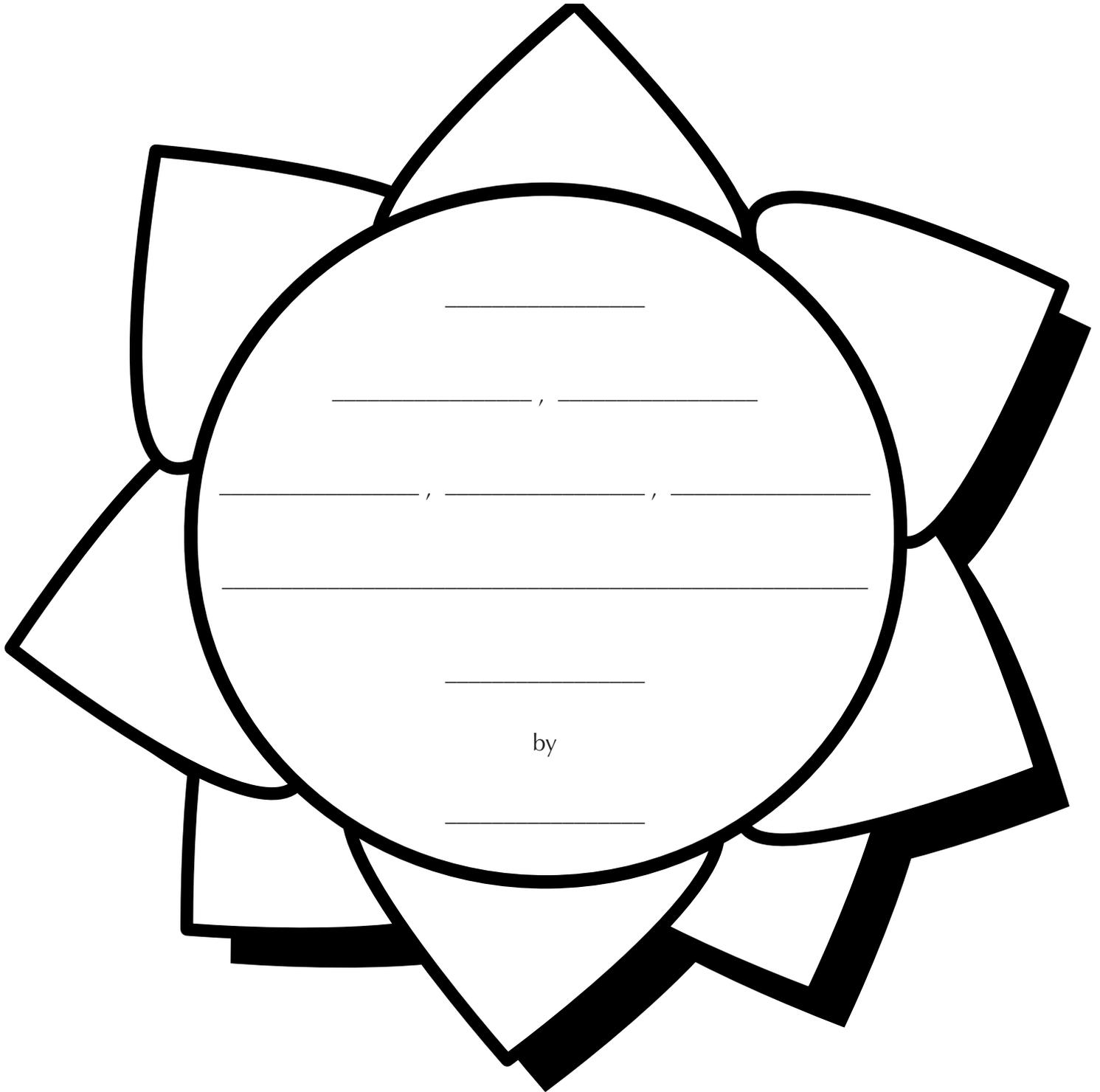
_____, _____
(two adjectives describing the flower)

_____, _____, _____
(three action words)

(four-word phrase about the flower)

(synonym or related word)

Native Flower Cinquain

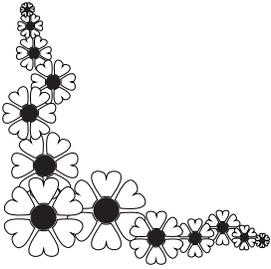
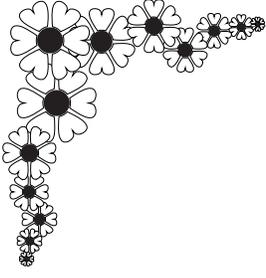


_____, _____

_____, _____, _____

by

Comparing Native Flowers

A large, stylized outline of a flower with five rounded petals. The flower is divided into two main sections by a vertical line. The left section is labeled "(flower 1)" and the right section is labeled "(flower 2)". Each section contains a smaller, identical outline of the flower, intended for drawing or coloring to compare the two.

(flower 1)

(flower 2)





Native Flowers of Indiana

Comprehension Worksheet

Name: _____

1. Which flower looks like it is bleeding when you cut its stem or a leaf? _____
2. Which flower can be used to treat pimples? _____
3. Which flower will gold finches perch on to eat its seeds in late summer? _____
4. Which flower is used to make insect repellent? _____
5. Leaf-eating insects and animals don't like the smell of what? _____
6. Some plants have sticky hairs growing on their stems. Why? _____

7. Some plants have hairs inside their flowers. Why? _____

8. Why are the leaves of some plants splotchy instead of a solid color? _____

9. Before it was a state, Indiana was covered in plants. Why is it not anymore? _____

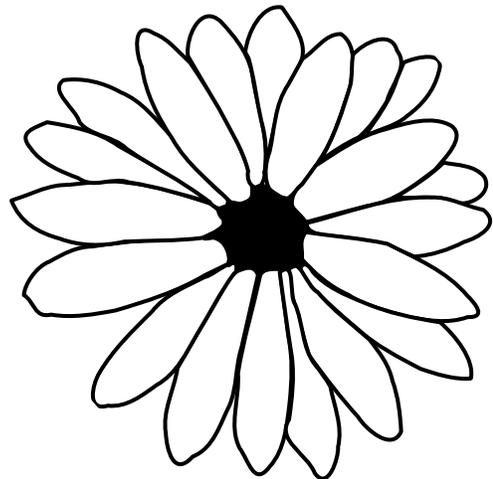
10. Why are native plants important to the environment? _____

Native Flowers of Indiana

Vocabulary Worksheet

Match the definition to the vocabulary word.

1. _____ An underground stem that grows outwards from the parent plant and grows new roots and new plants.
 2. _____ The female part of a flower that traps pollen. It is usually hairy or sticky.
 3. _____ A leaf that has several different parts connected to a single stem.
 4. _____ A thick, sticky substance that some plants make. It is much thicker than normal sap.
 5. _____ A group of tiny flowers and their rays that appear to be a single flower when looked at from a distance.
 6. _____ Plants that are naturally found in an area.
 7. _____ A swollen part of the stem formed underground by some plants to store nutrients for the winter.
 8. _____ The parts of a compound leaf.
 9. _____ The male part of the flower that makes pollen.
 10. _____ A kind of flower that looks like a flower petal.
- A. compound leaf
 - B. corm
 - C. flower head
 - D. native plants
 - E. leaflets
 - F. pistil
 - G. ray
 - H. resin
 - I. rhizome
 - J. stamen



Native Flowers of Indiana

Vocabulary Quiz

Name: _____

1. The parts of a compound leaf:
 - A) leaflets
 - B) corm
 - C) ray
 - D) stamen

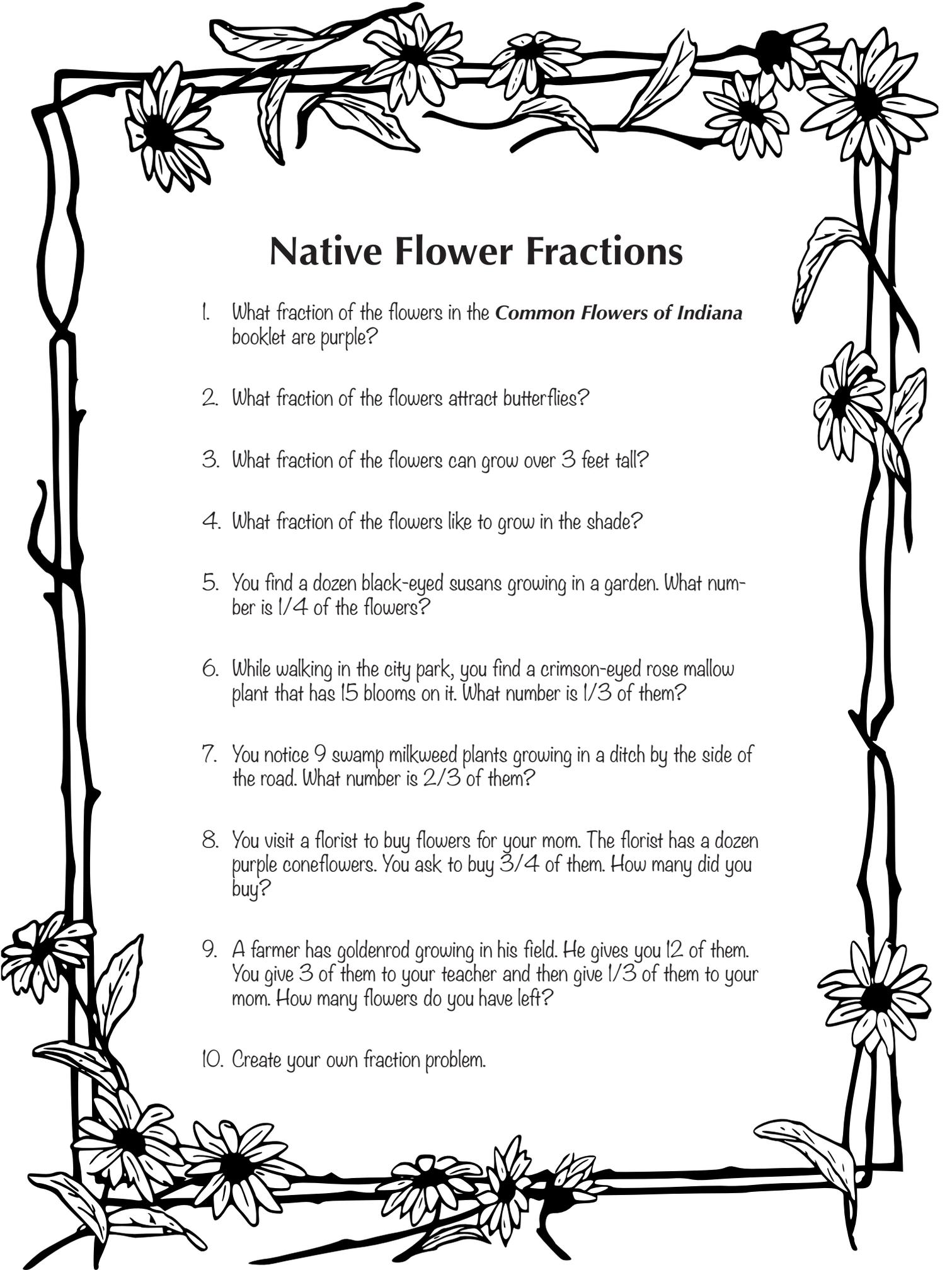
2. A group of tiny flowers and their rays that appear to be a single flower:
 - A) rhizome
 - B) native plants
 - C) compound leaf
 - D) flower head

3. A kind of flower that looks like a flower petal:
 - A) ray
 - B) stamen
 - C) corm
 - D) flower head

4. A leaf that has several different parts connected to a single stem:
 - A) compound leaf
 - B) resin
 - C) leaflets
 - D) pistil

5. The female part of a flower that traps pollen. It is usually hairy or sticky:
 - A) stamen
 - B) pistil
 - C) corm
 - D) ray

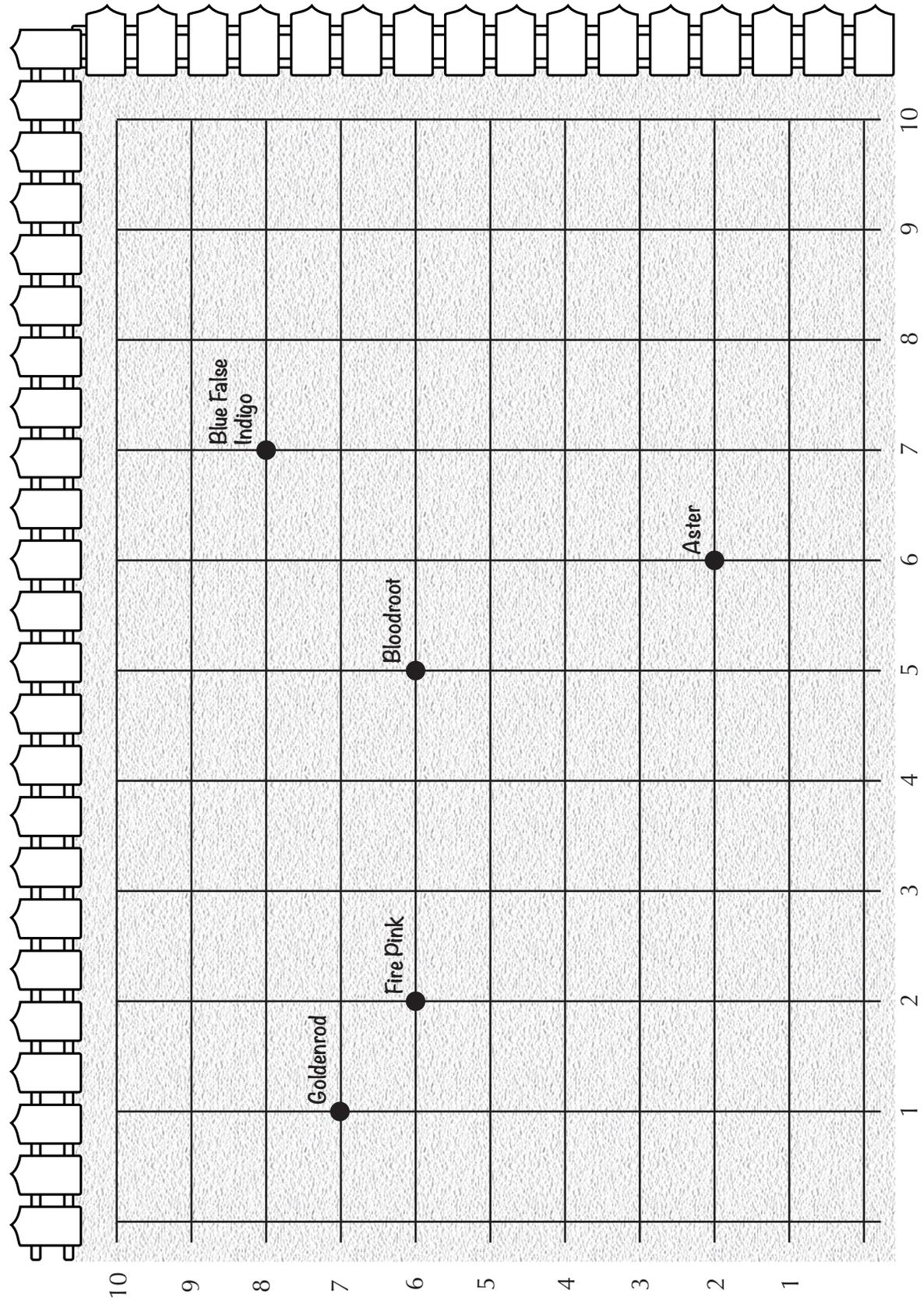
6. A thick, sticky substance that some plants make, thicker than normal sap:
- A) ray
 - B) stamen
 - C) rhizome
 - D) resin
7. The male part of the flower that makes pollen:
- A) pistil
 - B) rhizome
 - C) resin
 - D) stamen
8. A swollen part of the stem formed underground by some plants:
- A) compound leaf
 - B) rhizome
 - C) corm
 - D) stamen
9. An underground stem that grows outwards to grow new roots and new plants:
- A) pistil
 - B) rhizome
 - C) ray
 - D) resin
10. Plants that are naturally found in an area:
- A) native plants
 - B) flower head
 - C) stamen
 - D) leaflets



Native Flower Fractions

1. What fraction of the flowers in the *Common Flowers of Indiana* booklet are purple?
2. What fraction of the flowers attract butterflies?
3. What fraction of the flowers can grow over 3 feet tall?
4. What fraction of the flowers like to grow in the shade?
5. You find a dozen black-eyed susans growing in a garden. What number is $\frac{1}{4}$ of the flowers?
6. While walking in the city park, you find a crimson-eyed rose mallow plant that has 15 blooms on it. What number is $\frac{1}{3}$ of them?
7. You notice 9 swamp milkweed plants growing in a ditch by the side of the road. What number is $\frac{2}{3}$ of them?
8. You visit a florist to buy flowers for your mom. The florist has a dozen purple coneflowers. You ask to buy $\frac{3}{4}$ of them. How many did you buy?
9. A farmer has goldenrod growing in his field. He gives you 12 of them. You give 3 of them to your teacher and then give $\frac{1}{3}$ of them to your mom. How many flowers do you have left?
10. Create your own fraction problem.

The Native Flower Garden





The Native Flower Garden

You have decided to plant a native flower garden to attract and provide food for bees and butterflies throughout the seasons. You have already planted some flowers, but would like to plant more. To assist you with your design, you have created a map of your garden. List the ordered pairs for each existing plant, and plot the points on the coordinate plan for each flower you will plant.

List the ordered pair for each flower below:

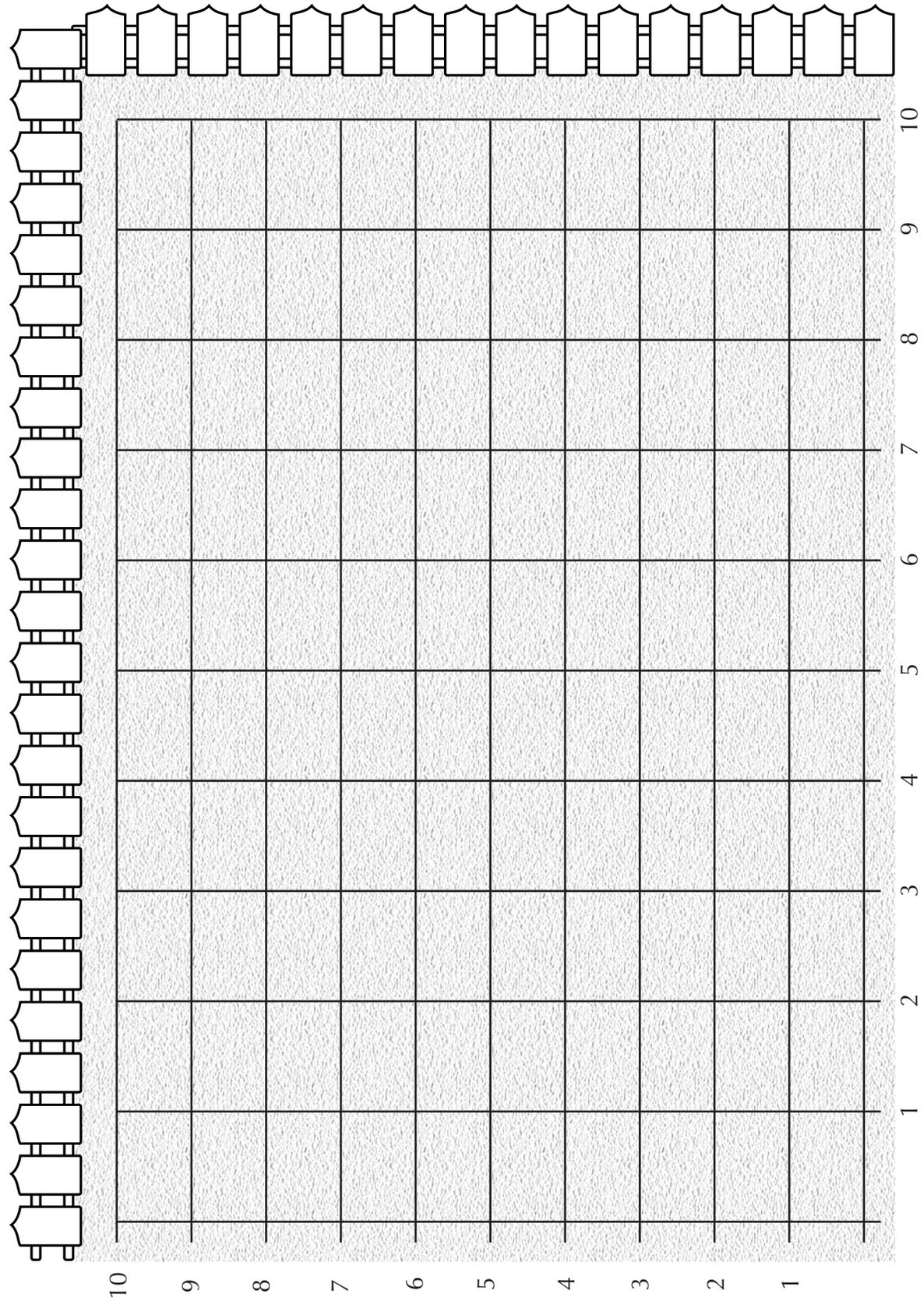
1. Aster _____
2. Bloodroot _____
3. Blue False Indigo _____
4. Fire Pink _____
5. Goldenrod _____

Plot and label the following points:

6. Plant a Black-Eyed Susan at (8, 4). Label it BES.
7. Plant a Purple Coneflower at (4, 3). Label it PC.
8. Plant a Butterfly Weed at (1, 2). Label it BW.
9. Plant a Mountain Mint at (9, 7). Label it MM.
10. Plant a Foxglove Beardtongue at (3, 8). Label it FB.



The Native Flower Garden



Native Flowers of Indiana

Answer Key

Comprehension Worksheet

1. Bloodroot
2. Wild Bergamot
3. Purple Coneflower
4. Dense Blazing Star
5. Mint
6. To keep crawling insects from eating it.
7. The hairs gets caught on the hair of an insect, causing the stamens to bend and stick their pollen onto the insect.
8. The splotches help hide the plants in the dead leaves of the forest floor from hungry, color-blind animals.
9. Growing cities have had to clear land so we can have places to live, and farmers have had to clear even more land so they can plant food for us to eat.
10. Native plants are good food and shelter to wildlife. They are also used to the weather, so we don't have to water or fertilize them very much.

Vocabulary Worksheet

1. I
2. F
3. A
4. H
5. C
6. D
7. B
8. E
9. J
10. G

Vocabulary Quiz

1. A
2. D
3. A
4. A
5. B
6. D
7. D
8. C
9. B
10. A

Native Flower Fractions

1. $\frac{8}{20}$ ($\frac{2}{5}$)
2. $\frac{16}{20}$ ($\frac{4}{5}$)
3. $\frac{13}{20}$
4. $\frac{4}{20}$ ($\frac{1}{5}$)
5. 3
6. 5
7. 6
8. 9
9. 6
10. Answers will vary.

Native Flower Garden

1. (6,2)
2. (5,6)
3. (7,8)
4. (2,6)
5. (1,7)
6. see map
7. see map
8. see map
9. see map
10. see map

