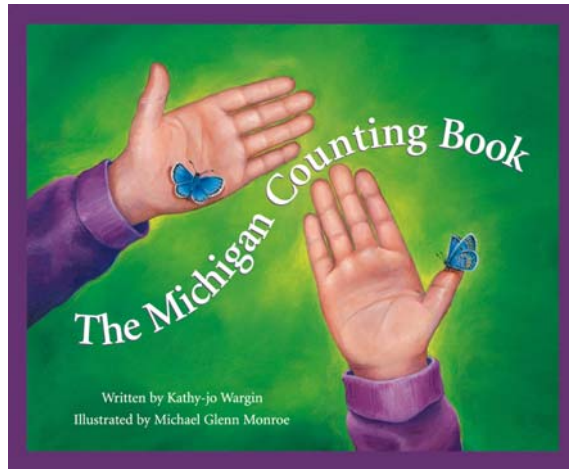


Teacher's Guide



The Michigan Counting Book

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WILL WE LOSE THEM?

Threatened and Endangered Species

Michigan is the home of many wonderful plants and animals. It is a wonderful state to explore and enjoy. Count the different species you find in *The Michigan Counting Book*.

Place each species listed below in the correct list below.

Kirtland's Warbler

Gray Wolf

Bald Eagle

Dwarf Lake Iris

Piping Plover

Karner Blue Butterfly

Endangered

Threatened

7 IS AN ODD NUMBER

What is a Greater Sandhill Crane? This species of bird has been on Earth for a very long time. Read *The Michigan Counting Book* to learn more about this wonderful bird.

The Greater Sandhill Crane has a wingspan of nearly seven feet. Seven is an odd number.

Odd numbers end in 1, 3, 5, 7, 9.

Write the odd numbers from 7-77

7 ___ ___ ___ ___ ___ ___ 21 ___ ___ ___ ___ ___
___ 35 ___ ___ ___ ___ ___ ___ ___ 53 ___ ___
___ ___ ___ ___ ___ ___ ___ ___ 75 ___

Add these odd numbers

1. $5 + 7 =$ _____

2. $13 + 17 =$ _____

3. $9 + 1 =$ _____

4. $21 + 75 =$ _____

What pattern do you see? _____

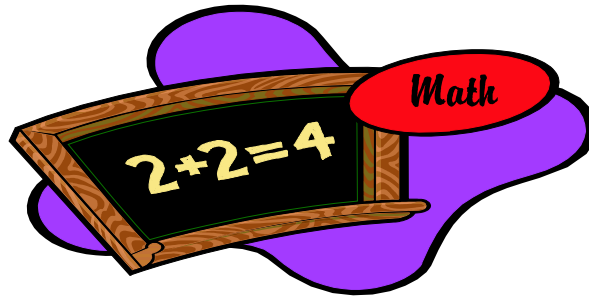
WHERE IN MICHIGAN?

Throughout *The Michigan Counting Book* you will read about some interesting plants and animals that are found in the state. Many are very special to the people of Michigan.

Place each of the following where it is grown or lives in Michigan.

Navy beans , Kirtland's warbler, Gray wolf, Soo locks, White swan





Petoskey Stone Math

What are Petoskey stones? Discover the answer to this question in *The Michigan Counting Book*. Have you ever found a Petoskey stone? Perhaps someday you will if you visit the shores of Lake Michigan.

Solve

1. LaKeisha and Jeremy were hunting Petoskey stones along the shore. LaKeisha found 18 stones and Jeremy found 12 stones. How many more stones did LaKeisha find than Jeremy? _____
2. Anna joined the group and she found seven stones. How many stones did the three children find all together? _____
3. A wave came on shore and washed away 14 stones. How many are left?

4. If they divided the stone's that were left equally among the three children, how many would each child get? _____ How many were left over? _____
5. If you gave each child in your class three Petoskey stones. How many would you need? _____

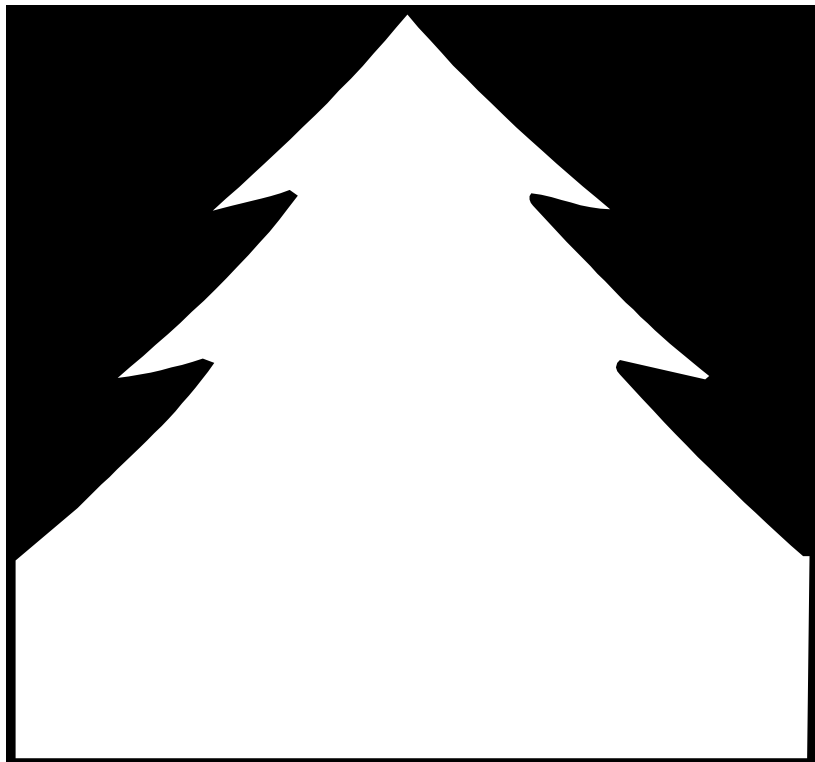
Christmas Trees

Alphabetical Order

Have you ever gone to a Christmas tree farm and cut your own tree? What a wonderful experience! In *The Michigan Counting Book* you can read about the number of Christmas trees that are plantation-grown in Michigan.

Put each species of tree in alphabetical order, inside the Christmas tree.

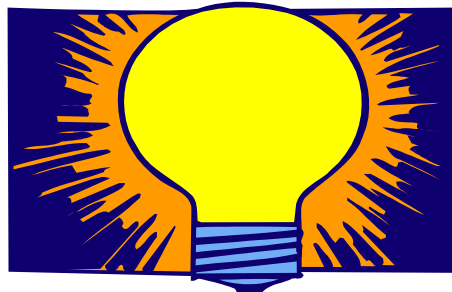
White Pine
Balsam
Douglas Fir
Fraser Fir
Colorado Blue Spruce
White Spruce



FIND THE ANSWER

The answers to each of these questions can be found as you read *The Michigan Counting Book*. You may have to do some searching!

1. Name the locks that help boats pass the St. Mary's Rapids. _____
2. Is the Gray Wolf population increasing or decreasing? _____
3. Does the Dwarf Lake Iris prefer to grow in sand or in the woods? _____
4. Name Michigan's official state fish. _____
5. How many voyageurs are sitting in the canoe? _____
6. What's the most popular bean grown in Michigan? _____
7. What is the bald eagles' main source of food in Michigan? _____
8. Is Michigan the only state that has the Piping Plover? _____
9. What is a Lady's Slipper? _____
10. Who is the author of *The Michigan Counting Book*? _____





MICHIGAN CROSSWORD

Read *The Michigan Counting Book* and learn the answers to this crossword.

M ___ ___ ___ ___
I ___ ___
C ___ ___ ___ ___ ___ ___ ___
H ___ ___ ___ ___
I ___ ___ ___
G ___ ___ ___ ___
A ___ ___ ___ ___ ___ ___
N ___ ___ ___

1. A large mammal _____
2. Formed on the lakes in winter _____
3. Type of tree enjoyed in December _____
4. Kirtland's Warblers _____ from eggs
5. Dwarf Lake _____
6. The _____ Lakes
7. Voyageurs traded with Native _____ people.
8. Michigan's number one bean _____



How Big is That Bird?

The Michigan Counting Book is full of information about birds, animals, and plants that are found in Michigan.

Put these birds in order from largest to smallest in size.

| | | |
|---------------------------|-------------------------------|-------------------|
| Kirtland Warblers' | Greater Sandhill Crane | |
| Piping Plover | Bald Eagle | White Swan |

1. _____
2. _____
3. _____
4. _____
5. _____

Draw your favorite of these birds.



Yummy Maple Brownies

Maple syrup is one of the treats made from the sap of sugar maple trees in Michigan. Discover the amount of sap it takes to make a gallon of syrup in *The Michigan Counting Book*.

Enjoy making these Maple Brownies. Have an adult supervise.

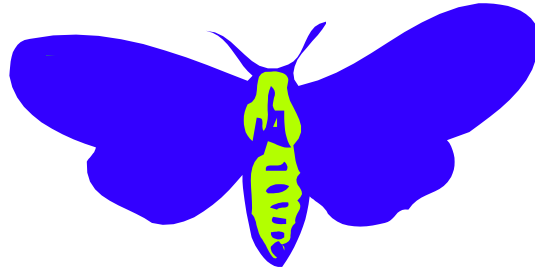
Maple Brownies

Ingredients

2 eggs
 $\frac{3}{4}$ cup sugar
1 teaspoon vanilla
 $\frac{1}{2}$ cup maple syrup
6 tablespoons butter or margarine
2 1-ounce squares of unsweetened chocolate
 $\frac{3}{4}$ cup all-purpose flour
 $\frac{1}{2}$ teaspoon baking powder
 $\frac{1}{4}$ teaspoon salt

Beat together eggs, sugar, and vanilla. Add syrup, mix well.
Melt butter and chocolate over low heat. Remove from heat.
Blend in egg mixture. Stir together flour, baking powder, and salt.
Stir into chocolate mixture. Spread in a greased 9x9x3 baking pan. Bake at 350 degrees for 25-30 minutes. Cool.

ENJOY



Life Stages of a Butterfly

A butterfly has a four stage life cycle. Discover which Michigan butterfly is an endangered species in *The Michigan Counting Book*. See if you can observe this butterfly in nature.

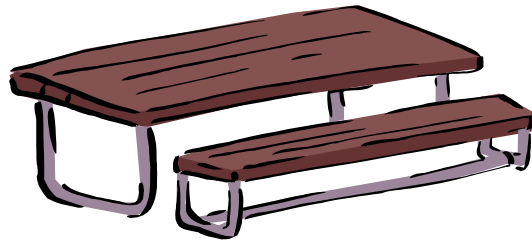
Draw a picture of what a butterfly looks like at each stage of development.

Egg

Butterfly

Caterpillar

Chrysalis



ROADSIDE FAVORITE SURVEY AND GRAPH

Isn't it fun to stop at a roadside park and have a picnic? Michigan was the first state to invite people to stop and picnic along their highways.

Survey your class and find their favorite snacks for a picnic.

Apples

Carrots

Peanuts

Show your data results on a bar graph. Use a different color for each snack. Remember, your graph needs a title.



Plant a Tulip Bulb

Tulips are a beautiful spring flower that is seen throughout Michigan. See if you can find the tulips in *The Michigan Counting Book*.

Plant your own tulip bulbs and watch them grow and bloom.

Directions

1. Choose a small flower pot.
2. Fill the pot with potting soil. Make sure there is enough soil so that you can plant the bulb at least an inch deep.
3. Set the bulb in the pot. Make sure the pointed side is up and the root side is down.
4. Fill the pot with soil to within an inch of the top.
5. Water thoroughly.
6. Place the pot in a cool spot and cover with mulch. Check often, and water if necessary.
7. Move to a sunny spot when you see the first signs of growth.
8. Keep moist.

The Michigan Counting Book

Answer Sheet

Will We Lose Them?- Endangered- Kirtland's Warbler, Karner Blue Butterfly, Gray Wolf, Piping Plover
Threatened- Dwarf Lake Iris, Bald Eagle

Odd Numbers- 1) 12 2) 30 3) 10 4) 96
Pattern- adding two odd numbers gives an even number.

Where in Michigan?- Navy beans- Thumb; Kirtland's Warbler- Northern part of Lower Peninsula; Soo Locks- upper peninsula; White Swan-Lake Michigan shore

Petoskey Stone Math- 1) 6 2) 37 3) 23 4) 7.2

Christmas Trees- Balsam, Colorado Blue Spruce, Douglas Fir, Fraser Fir, White Pine, White Spruce

Find the Answer- 1) Soo 2) increasing 3) sand 4) Brook trout
5) 10 6) navy bean 7) fish 8) no 9) flower 10) Kathy-jo Wargin

Michigan Crossword- 1) moose 2) ice 3) Christmas 4) hatch
5) Iris 6) Great 7) American 8) navy

How Big Is the Bird?- 1) Greater Sandhill Crane 2) White Swan
3) Bald Eagle 4) Piping Plover 5) Kirtland's Warbler