



KINDERGARTEN SUPPLEMENT

Set C3 Geometry: Flying Butterflies Calendar Pattern

Includes

November Calendar Pattern

C3.1

Skills & Concepts

- ★ model and use words indicating relative position, direction, and distance
- ★ use the directional words *left* and *right* to describe movement
- ★ identify, describe, and extend simple repeating patterns

Bridges in Mathematics Kindergarten Supplement

Set C3 Geometry: Flying Butterflies Calendar Pattern

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Bridges in Mathematics is a standards-based K–5 curriculum that provides a unique blend of concept development and skills practice in the context of problem solving. It incorporates the Number Corner, a collection of daily skill-building activities for students.

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Set C3 ★ November Calendar Pattern



CALENDAR GRID

Flying Butterflies

Overview

This set of Calendar Grid markers replaces the student-made markers in the month of November, and provides opportunities for kindergartners to use and model words that indicate direction: *up*, *down*, *to the right*, and *to the left*.

Skills & Concepts

- ★ model and use words indicating relative position, direction, and distance
- ★ use the directional words *left* and *right* to describe movement
- ★ identify, describe, and extend simple repeating patterns

You'll need

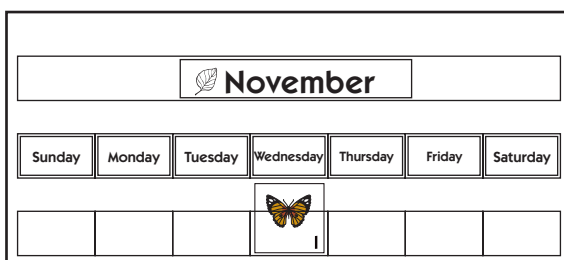
- ★ Calendar Grid pocket chart
- ★ Day, Month, and Year Calendar Grid cards
- ★ November Flying Butterflies Calendar Markers (available at <http://gotomlc.org/calmarkers>) Print 1 copy of the calendar marker sheets, preferably in color, single-sided, on white cardstock. Cut the calendar markers apart and laminate if desired.
- ★ The Monarch Poem (pages C3.7–C3.10, see Advance Preparation)
- ★ 4 pieces of 6" x 9" yellow construction paper (see Advance Preparation)
- ★ helper jar containing a popsicle stick for each child with his/her name on it

Advance Preparation Use pages C3.7–C3.10 to create a wall chart or book of the Monarch Poem to share with your students during the month. (You can also find this poem in larger format in the Poems and Songs Portfolio that came with your Number Corner kit.) Finally, write the words *up*, *down*, *to the right*, and *to the left* on the pieces of yellow construction paper, as shown below.



Introducing the Flying Butterflies Calendar Markers: Day 1

Open your first Number Corner lesson in November by directing students' attention to the calendar grid. Explain that you will put up a new calendar marker as each day of the month passes. Place the first marker in the correct pocket, and ask children to pair-share observations.



November Calendar Pattern (cont.)

What do they notice about this marker? After a few moments, pull popsicle sticks from your helper jar to call on children to share their observations with the class.

Students *It's a butterfly!
There's a number 1 on that card, too.
It has big wings!*

Then ask children to predict what they might see on the marker for the following day.

Students *Maybe another butterfly?
Or maybe a ladybug.
Some kind of bug, probably.*

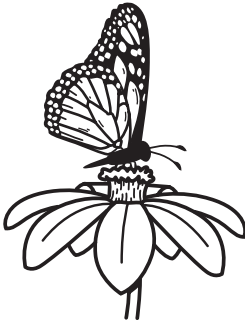
Introducing the Flying Butterflies Calendar Markers: Day 2

Before you post the calendar marker the following day, explain that the butterfly on the first marker is a monarch. Then take a few minutes to read and discuss The Monarch Poem with your class. Here are some questions you might pose to the children after you have read the poem through two or three times:

- What happened first?
- After the egg hatched into a caterpillar, then what happened?
- Once the butterfly came out of the chrysalis, what did it do?
- Where do you think the butterfly will go now?

Set C3 Geometry: Flying Butterflies Calendar Pattern Blackline Create a wall chart or book.

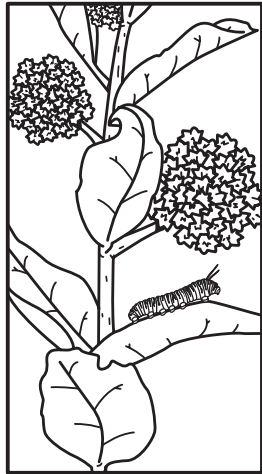
The Monarch Poem page 1 of 4



The Monarch
by Donna Burk
illustrated by Tyson Smith

Set C3 Geometry: Flying Butterflies Calendar Pattern Blackline Create a wall chart or book.

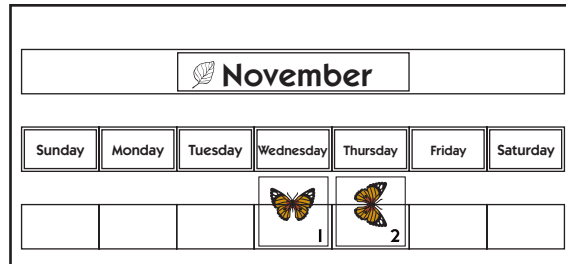
The Monarch Poem page 2 of 4



A little egg on some
Milkweed green,
Became a caterpillar,
Tiny and lean.

Next, post the second calendar marker, and invite students to make observations. What is the difference between the butterfly on this marker and the one on the first marker?

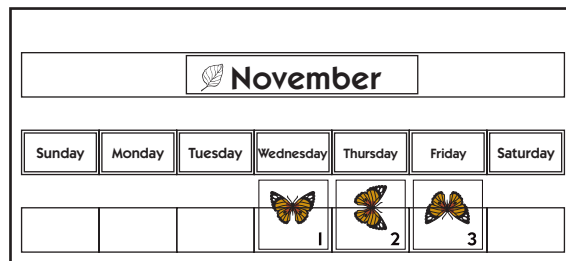
November Calendar Pattern (cont.)



Students *It looks like the first one, but it's going a different way!
 It's going kind of sideways instead of straight.
 It's like the first one, but it's turned a different way.
 I think it's going to find some flowers, like that butterfly in the poem.*

Introducing the Flying Butterflies Calendar Markers: Day 3

The next day, post the third marker and invite students to pair-share observations. After a few moments, pull sticks from your helper jar to call on children to share their observations with the class.



Students *It's the butterfly again, but this time, he's going upside down!
 Maybe he got mixed up about which way to fly!
 First it went up, then sideways, and now down.
 It goes different every time!*

Next, show children the word cards you have prepared.



Read the cards one by one with the class. Explain that these are *direction words*, words people use to tell which way something is going.

Pull the calendar markers out of the pocket chart and set them on your chalk ledge. Ask the children to help you find the card that best describes the direction each butterfly is headed, and place the card beside that marker.



November Calendar Pattern (cont.)

Then ask children to predict what they might see on the marker for the following day.

Students *It's probably going to be up again.*

Maybe it'll be a different bug, like a grasshopper or a ladybug.

Maybe it will be a butterfly going the way that other card says!

Continuing through November with the Calendar Grid

Post the word cards beside the calendar grid pocket chart for reference throughout the month. Each day, have a helper point to the markers that have been posted so far as the class names the butterflies' directions. Encourage the children to point up, to the right, down, and to the left with their fingers as they go. Then ask students to predict what the next marker will show before you place it on the chart.

| | | | | | | |
|----------|--------|---------|-----------|----------|--------|----------|
| November | | | | | | |
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | | | | |
| | | | | | | |
| | | | | | | |

up

to the right

down

to the left

Teacher *Amy, will you please come up and point to the markers we have posted so far, while we tell which direction the butterfly is flying on each marker? Let's point with our fingers to show the directions, too.*

Students *Up, to the right, down, to the left; up, to the right, down....*

The next guy is going to be flying up!

No, to the left!

I think it goes up, sideways, down, and then sideways the other way.

Teacher *Can you use your finger to point in the direction you think the next butterfly will be going? Hmmmmmm, I see a lot of children pointing to the left. Let's check to see. Sam, will you please put the next marker into the pocket chart?*

| | | | | | | |
|----------|--------|---------|-----------|----------|--------|----------|
| November | | | | | | |
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | | | |
| | | | | | | |
| | | | | | | |

November Calendar Pattern (cont.)

Students *I knew it! That butterfly is going over to the left!
I think he's going to turn and fly up on the next marker.*

As the markers are posted, one each day, ask students to share their observations and predictions about the pattern. Here are some questions and prompts to use through the month:

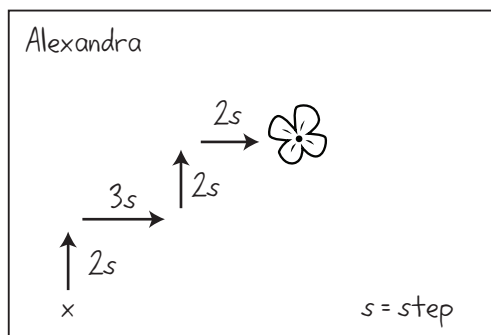
- Which way do you think the next butterfly will be going? Why?
- What about the butterfly on the marker for the day after tomorrow?
- How many butterflies are flying up (down, to the right, to the left) so far?
- What number marker do you think will show the next butterfly going up (down, to the right, to the left)? Why?

Extensions

- Have children enact the pattern by gesturing with their hands as you point to the markers on the calendar in sequence. You might even work with the class to make up a chant to accompany the motions (e.g., *Butterfly up, up; Butterfly to the right; Butterfly down, down; Butterfly to the left*, and so on).
- Have students stand up and “dance” the pattern, moving 2 or 3 steps in each direction as a helper points to the markers. (You might want to introduce and use the words *forwards* and *backwards* in place of *up* and *down* if you choose to do this extension with your group.)
- Have children pretend to be butterflies, and give them simple flight directions such as, “Fly 2 steps forward. Now fly 3 steps to the right. Now fly 1 step backward.”

**CHALLENGE**

Mark an x on the floor with blue masking tape somewhere in your classroom. Place a real, paper, or plastic flower elsewhere in the room. Challenge interested students to figure out how to get from the x to the flower, stepping only forwards, to the right, backwards, and/or to the left. Encourage them to develop different routes and find some way to record their sets of directions using symbols and/or simple sketch maps.



































If some of your students are particularly interested in maps, you might share one or more of the books listed below with the class, or pass the titles along to families who want to support their budding cartographers.

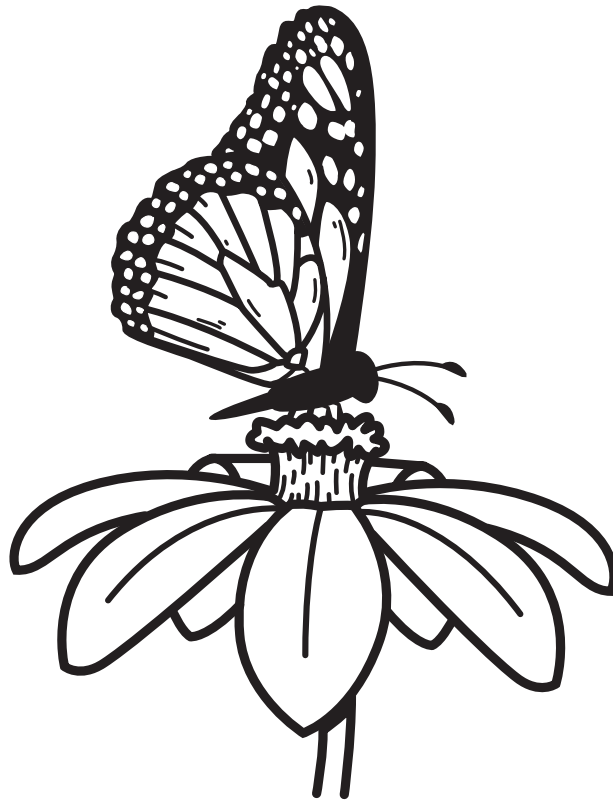
- *Me on the Map* by Joan Sweeny
- *Where Do I Live?* by Neil Chesnow
- *As the Crow Flies: A First Book of Maps* by Gail Hartman

November Calendar Pattern (cont.)

NOTE Below is a representation of the November calendar grid. The full-size calendar markers are available at <http://gotomlc.org/calmarkers>.

|  November | | | | | | |
|---|---|---|---|---|---|---|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | |  1 |  2 |  3 |  4 |
|  5 |  6 |  7 |  8 |  9 |  10 |  11 |
|  12 |  13 |  14 |  15 |  16 |  17 |  18 |
|  19 |  20 |  21 |  22 |  23 |  24 |  25 |
|  26 |  27 |  28 |  29 |  30 |  31 | |

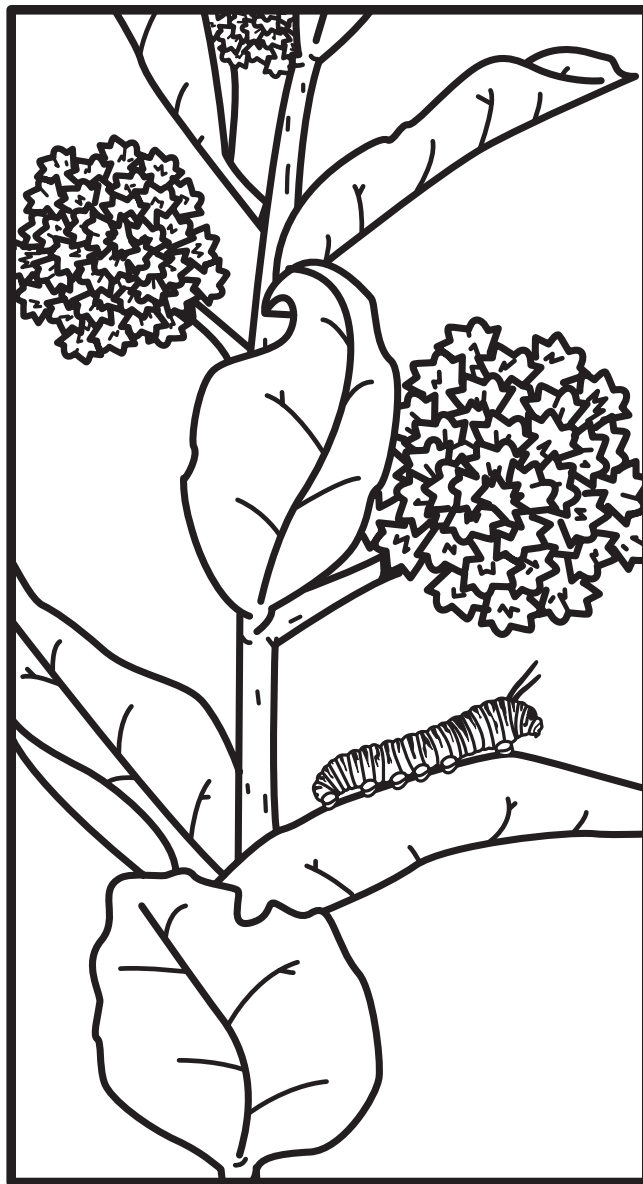
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The Monarch

by Donna Burk
illustrated by Tyson Smith

The Monarch Poem page 2 of 4



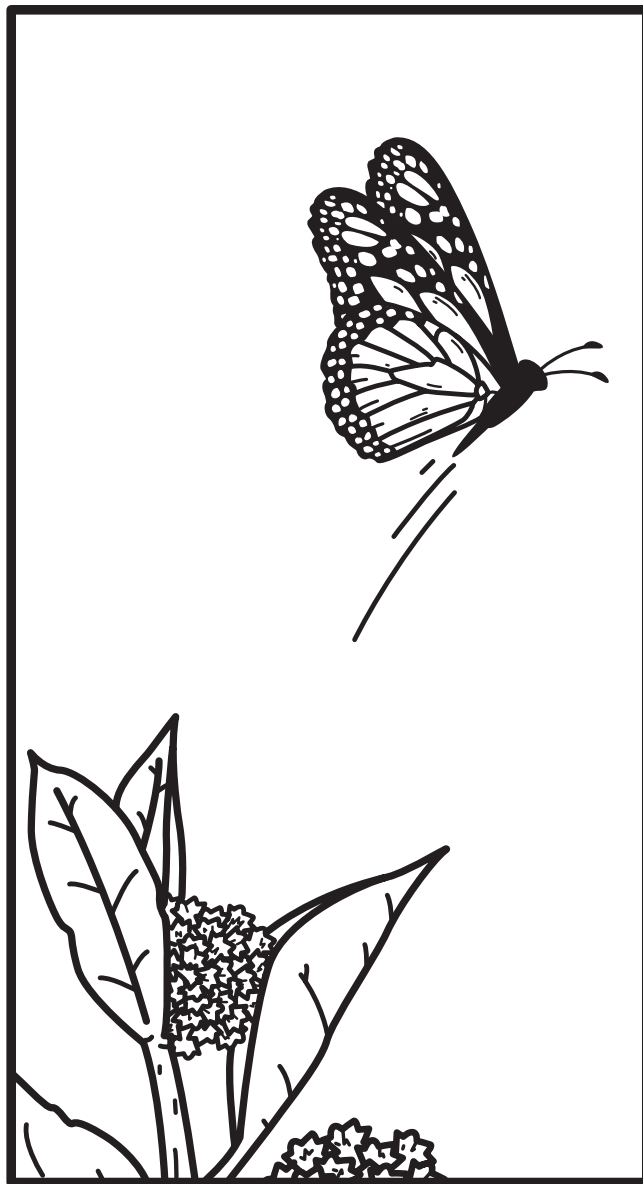
A little egg on some
Milkweed green,
Became a caterpillar,
Tiny and lean.

The Monarch Poem page 3 of 4



It ate and ate
Both day and night,
Then made a chrysalis,
Oh so bright.

The Monarch Poem page 4 of 4



It stayed very still,
The time seemed long,
But now it's a butterfly.
Good-bye, so long!