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Glyph Units

What Is a Glyph?

A *glyph* is a pictograph or hieroglyph. It is a non-standard way to collect, display, and interpret data. Students create pictures (the glyphs) by answering questions using a legend. The details in the picture provide information about the person who created the glyph.

The Magic of a Glyph

Learning to count, sort, make tally marks, combine sets, measure, and make patterns are all mathematical skills that students use regularly. The magic of using a glyph to practice these skills is that, in the process, students are also thinking critically by comparing and contrasting, reasoning, and drawing conclusions.

Glyphs easily span the entire curriculum. They are a perfect springboard for incorporating literature as well as reading, writing, math, and science. In addition, glyphs build classroom community as students learn about one another's interests and unique personalities. Most importantly, students are motivated to learn because glyphs are personal and meaningful.

Each glyph in this book includes directions, a legend, a data analysis page, and the patterns needed to complete it.

As you incorporate glyphs into your curriculum, children naturally become energized to learn about each other and, in turn, the skills needed for first grade. This book allows teachers to provide hands-on activities that will stimulate children's minds in a fun and creative way!

The *directions* explain how to construct the glyph and any special materials needed.

The *glyph key* provides the questions to ask the children and the details to add to the picture. Students can fill in their own glyph keys before or after assembly of the glyphs. Determine which system will work better for your students and be consistent for each glyph.

The *glyph data page* is where math skills are practiced and critical thinking begins. The page may be reproduced for each child or completed as a whole class. If completing it as a whole class, you may wish to enlarge the page, rewrite it on chart paper or use a document camera so all students are able to see and participate in the analysis process. With practice, students should fill in their own pages.

The *patterns* can be copied, enlarged, traced, or simply used as guides for students who prefer to make their own shapes.

Meeting Common Core Standards

Mathematics—Grade 1

Operations and Algebraic Thinking
- Represent and solve problems involving addition and subtraction.
- Understand and apply properties of operations and the relationship between addition and subtraction.
- Add and subtract up to 20.
- Work with addition and subtraction equations.

Measurement and Data
- Represent and interpret data.

Geometry
- Reason with shapes and their attributes.
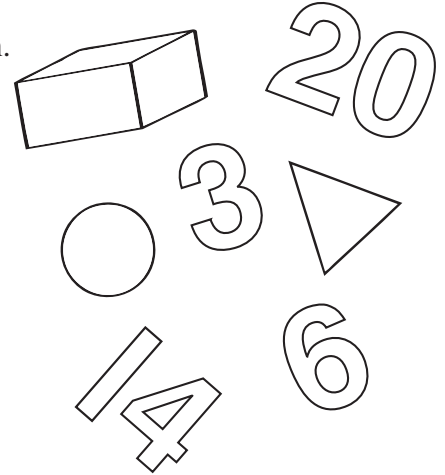
English Language Arts Standards—Grade 1

Reading: Literature
- With prompting and support, read prose and poetry of appropriate complexity for grade 1.

Reading: Informational Text
- Identify basic similarities in and differences between two texts on the same topic.

Writing
- With guidance and support from adults, recall information from experiences or gather information from provided sources to answer questions.

Speaking and Listening
- Participate in collaborative conversations with diverse partners *about grade 1 topics and texts* with peers and adults in small and larger groups.
- Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
- Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
- Produce complete sentences when appropriate to the task and situation.

Language
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases *based on grade 1 reading and content*, choosing flexibly from an array of strategies.

Motor Development Skills

✏ Write numbers. ✂ Cut with scissors. ✐ Draw shapes. ◁▱ Color with crayons.

Bat Glyph

Materials

- black and brown construction paper (for bats)
- brown construction paper (for tree branches)
- yellow construction paper (for moon)
- white construction paper (for fangs)
- red and orange yarn (for mouth)
- googly eyes
- glue and scissors
- Bat Glyph Key for each student (page 13)
- Bat Glyphs Data page for each student (page 14)
- Bat Patterns (pages 15–16)
- Bat Glyph Extension (page 17)
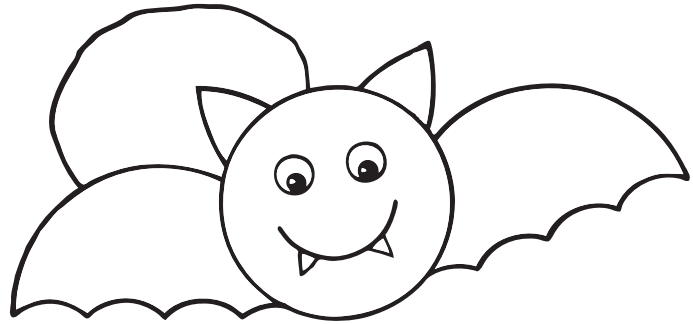
Making the Bat Glyph

1. Read two different books about bats and fill in the titles on the student glyph key pages before copying them.

   Suggestions: *Stellaluna* by Janell Cannon and *There was an Old Lady Who Swallowed a Bat* by Lucille Colandro

2. Use black and brown paper for the bats. Ask each student to choose which story he or she likes better.

   —If **Book 1** is chosen, then a bat will be cut out of black paper.

   —If **Book 2** is chosen, then a bat will be cut out of brown paper.
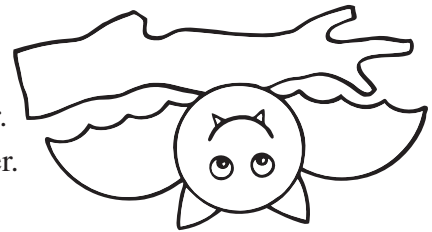
3. Glue the bat wings to the back of the bat's head.

4. Ask each student if he or she likes to hang upside down.

   —If **yes**, tear a tree branch from brown paper. Glue the bat upside down on the tree branch.

   —If **no**, tear a moon from yellow paper. Glue the bat right-side up on the moon.

5. Ask each student to decide if he or she likes bats.

   —If **yes**, then a red piece of yarn is glued to the bat's head for the mouth.

   —If **no**, then an orange piece of yarn is glued to the bat's head for the mouth.

6. Cut 2 white triangles and glue them to the mouth to look like fangs.

7. Glue googly eyes to the bat.

Extension: Practice singing "A Batty Song" (page 17) to the tune of "Row, Row, Row Your Boat." Provide the appropriate stanza (tree or moon) of "A Batty Song" for each student to fill in the blanks.

Bat Glyph Analysis

1. Copy the Bat Glyph Key for each student to fill in.
2. Pair-share to examine and interpret each other's Bat Glyphs.
3. Sort the completed Bat Glyphs with students according to each question.
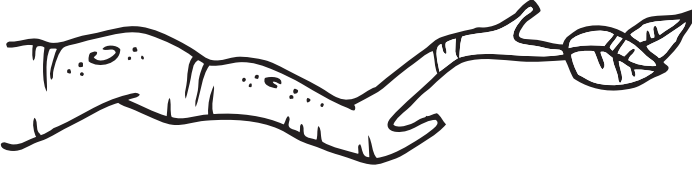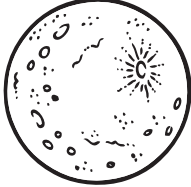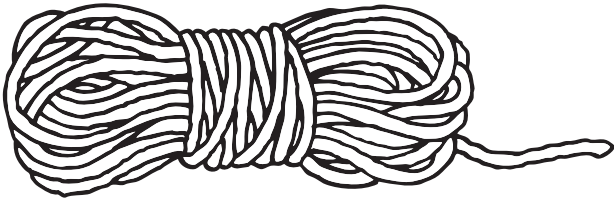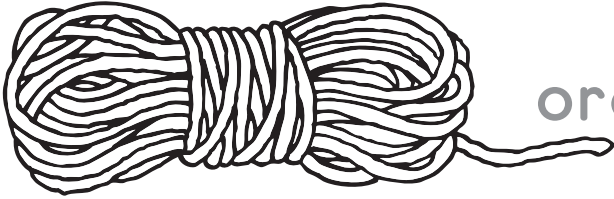4. Fill in the Bat Glyphs Data page as you answer each question.

Bat Glyph Key

1. Which book did you like better? Circle your answer and color the bat the color you chose.

	Bat Color
Book 1: _____	black
Book 2: _____	brown

2. Do you like to hang upside down? Circle **Yes** or **No**. Color your choice.

Yes	
No	

3. Do you like bats? Circle **Yes** or **No** and color the yarn you used.

Yes		red
No		orange

Bat Glyphs Data

Let's analyze our Bat Glyphs data!

1. Fill in the bar graph for each book and record the number. Color one square for each student. Record the totals.

Book 1													
Book 2													

Book 1 _____   **Book 2** _____

2. Count how many students like to hang upside down and how many do not. Color one square for each student. Record the numbers.

Yes													
No													

Like to hang upside down. _____

Do not like to hang upside down. _____

3. Count how many students like bats and how many do not like bats. Color one square for each student. Record the numbers.
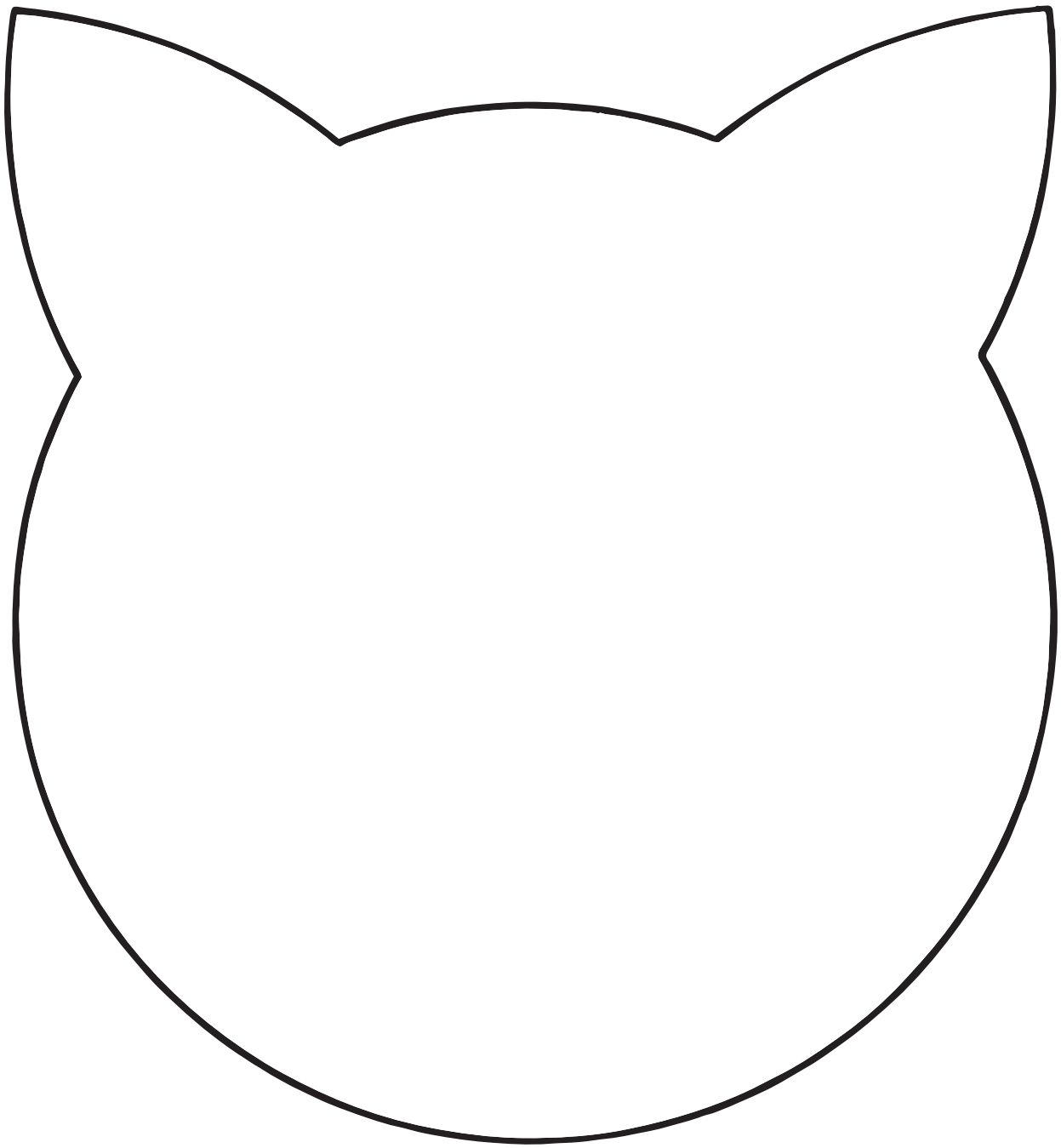
Yes													
No													

Like bats _____   Do not like bats _____

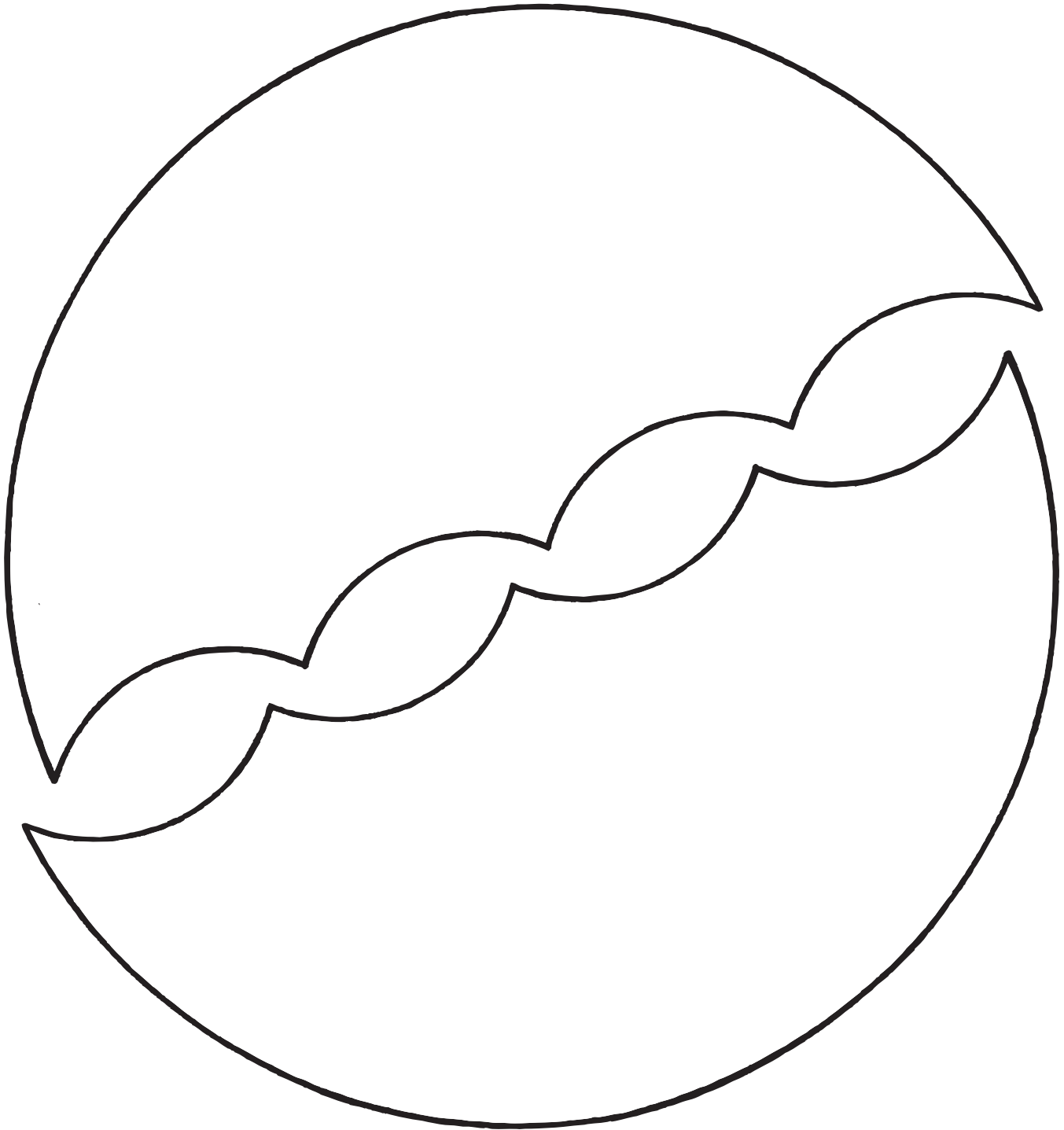**4.** Circle the answer with the larger number for each question above.

Bat Patterns

Bat Head

Bat Wings

Bat Glyph Extension

A Batty Song

(Tune: *Row, Row, Row Your Boat*)

Have you seen the bat
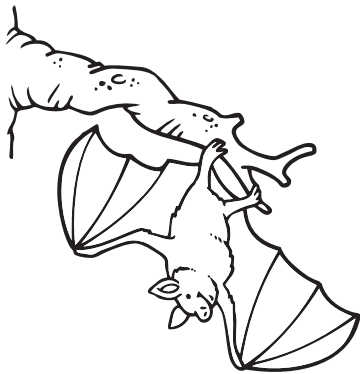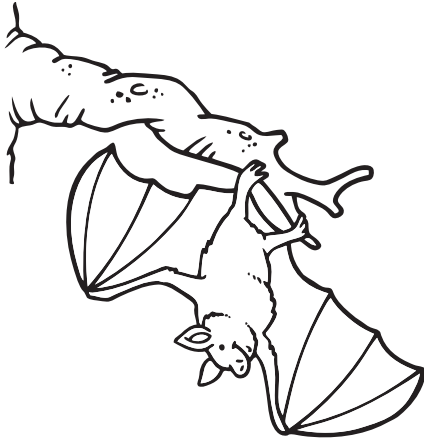Hanging from the tree?
Tip toe, tip toe.
I hope he won't see me!

Have you seen the bat
Flying by the moon?
Tip toe, tip toe.
Halloween is soon!

Have you seen _____ bat
Hanging from _____ tree?
Tip toe, tip toe.
I hope he won't _____ me!

Have you seen _____ bat
Flying by _____ moon?
Tip toe, tip toe.
Halloween _____ soon!