

1

Purposeful Design

MATHEMATICS

THIRD EDITION

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DM

1.5A Connecting Cubes



LM 1.1A Chapter 1 Parent Letter



Dear Parents,

Your child is ready to begin the first grade of the Purposeful Design Mathematics series. Each grade centers on a particular aspect of God's creation. Your child will enjoy colorful pages showing sharks, frogs, and other aquatic life as the theme for this grade, life in the sea, is developed.

The first chapter begins with a focus on sorting and classifying. It is very important that

your child learn to look for and name attributes, or characteristics, of objects because practice in this area trains your child in analytical thinking.

Another important skill that will be covered is patterning. God designed many things around us in patterns. Help your child look for patterns everywhere. The ability to notice and make patterns in one's environment is fundamental for understanding basic number concepts. Guide your child into making patterns with toys, blocks, and other household items. Have your child explain to you the pattern he or she has constructed. Be sure to note God's work in forming the patterns in nature and to lead your child to develop a sense of awe and wonder of His handiwork.

We will also begin numeral writing of 0 through 20. Encourage your child to work on the proper formation of each numeral as it is presented in the lessons. Your participation as a parent can help your child have "smooth sailing" as we explore not only the patterns of mathematics but God's Word as it applies to our lives.



LM 1.1B Project: Number and Numeral Flash Cards Description

The following project can be used after Lesson 1.6 as an additional activity or an informal assessment.

- Use **LM 1.1C Project: Number and Numeral Flash Cards** as a checklist for students to make their own flash cards. Print **LMs 1.1D–H Flash Cards: Numbers and Numerals** on card stock and cut the cards apart.
- Students will also need markers, crayons, and pencils.
- Students may work as individuals or in pairs. Distribute two cards at a time to each student. Assist students in reading the number word and in writing the corresponding numeral. Have students draw a number of items to match the number on the card; for example, two dogs for the number word *two*.
- Plan to allow several days for students to complete this project. When finished, students will have a set of number and numeral flash cards from 1 to 20. Consider laminating the cards. Use a rubber band to keep the cards together. Students can use the cards to make a number line or simply as a reference.
- Have students complete the project and use the rubric on LM 1.1C as a self-assessment.
- Use the teacher portion of the rubric to assess student work and then send it home.



Name _____

LM 1.1C Project: Number and Numeral Flash Cards

Work with a partner or by yourself to make a set of flash cards. Do the following:

- Write the numeral that matches the number word shown on each card.
- Draw a picture of the same number of objects as the number shown on the card.
- Work neatly. Write your name on the back of each card.

Use the following as a checklist for your project. When you have checked all the boxes in the first column, you are finished!

student		teacher
☐	I/We wrote the numeral that matches the number word on each card.	☐
☐	I/We made a picture showing the same number of objects as the number on the card.	☐
☐	I/We worked neatly and completed all 20 cards and wrote my/our names on the back of each card.	☐
Total		☐

Scoring Guide: 4 Excellent 3 Well done 2 Good 1 Needs work
Teacher Comments:



LM 1.1D Flash Cards: Numbers and Numerals



one

two

three

four



LM 1.1E Flash Cards: Numbers and Numerals



five

six

seven

eight



LM 1.1F Flash Cards: Numbers and Numerals



nine

ten

eleven

twelve



LM 1.1G Flash Cards: Numbers and Numerals



thirteen

fourteen

fifteen

sixteen



LM 1.1H Flash Cards: Numbers and Numerals



seventeen

eighteen

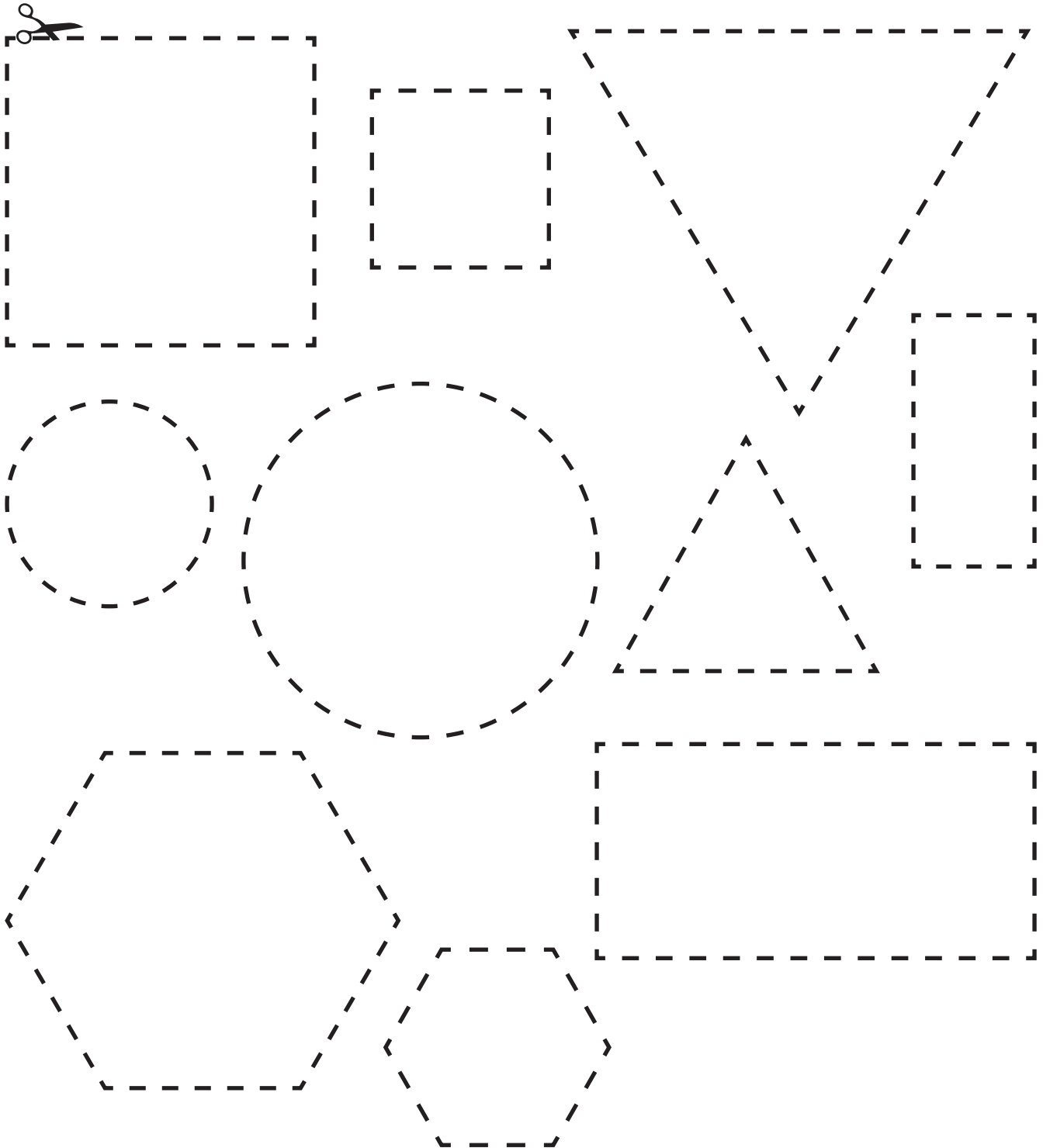
nineteen

twenty



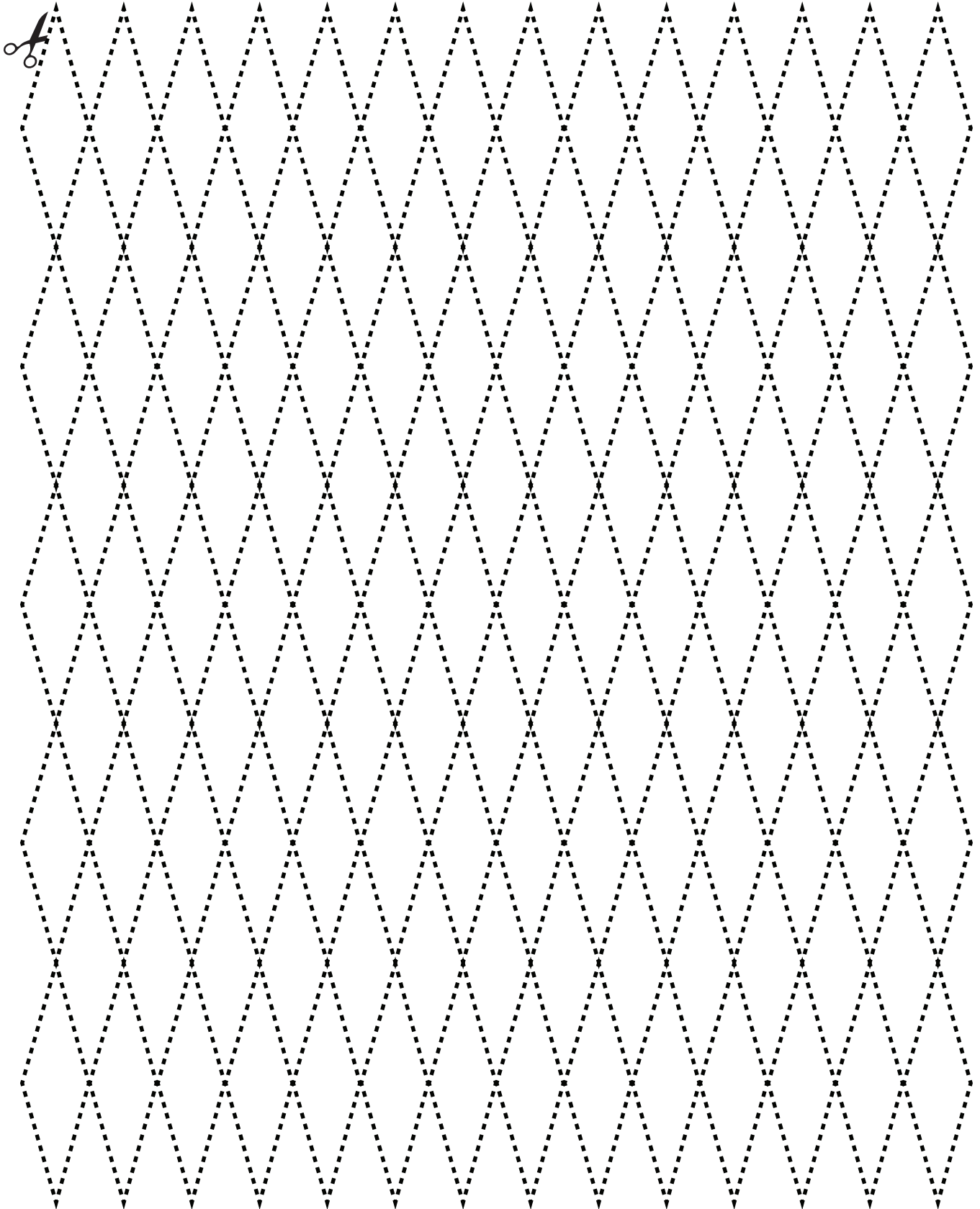
LM 1.2A Attribute Blocks

Print one copy of these patterns on each of three colors of paper—red, yellow, and blue. Each student will need all three colors. Laminate and then cut out the block shapes. Store the shapes in a ziplock bag.



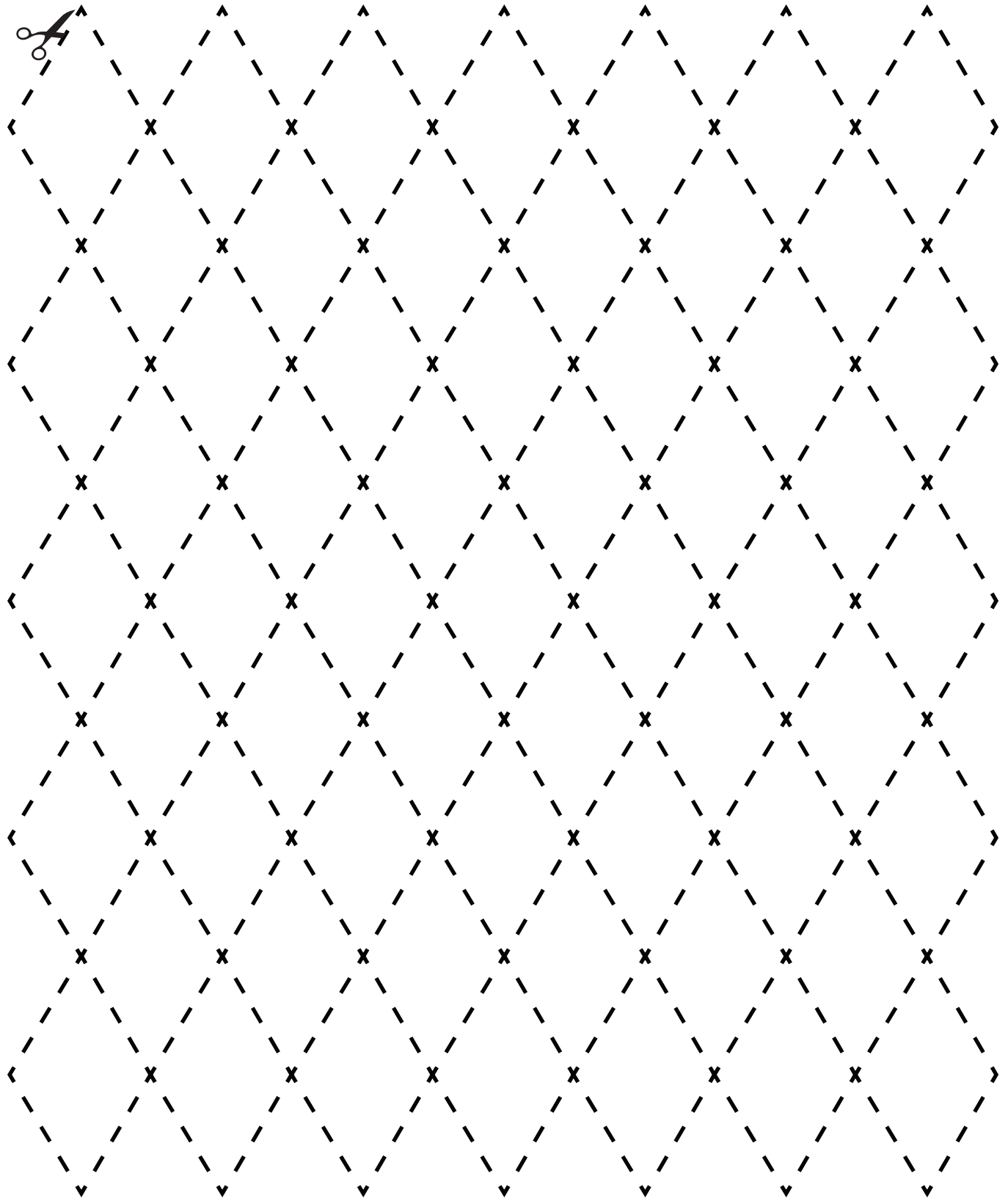


LM 1.4A Pattern Blocks: Narrow Rhombus



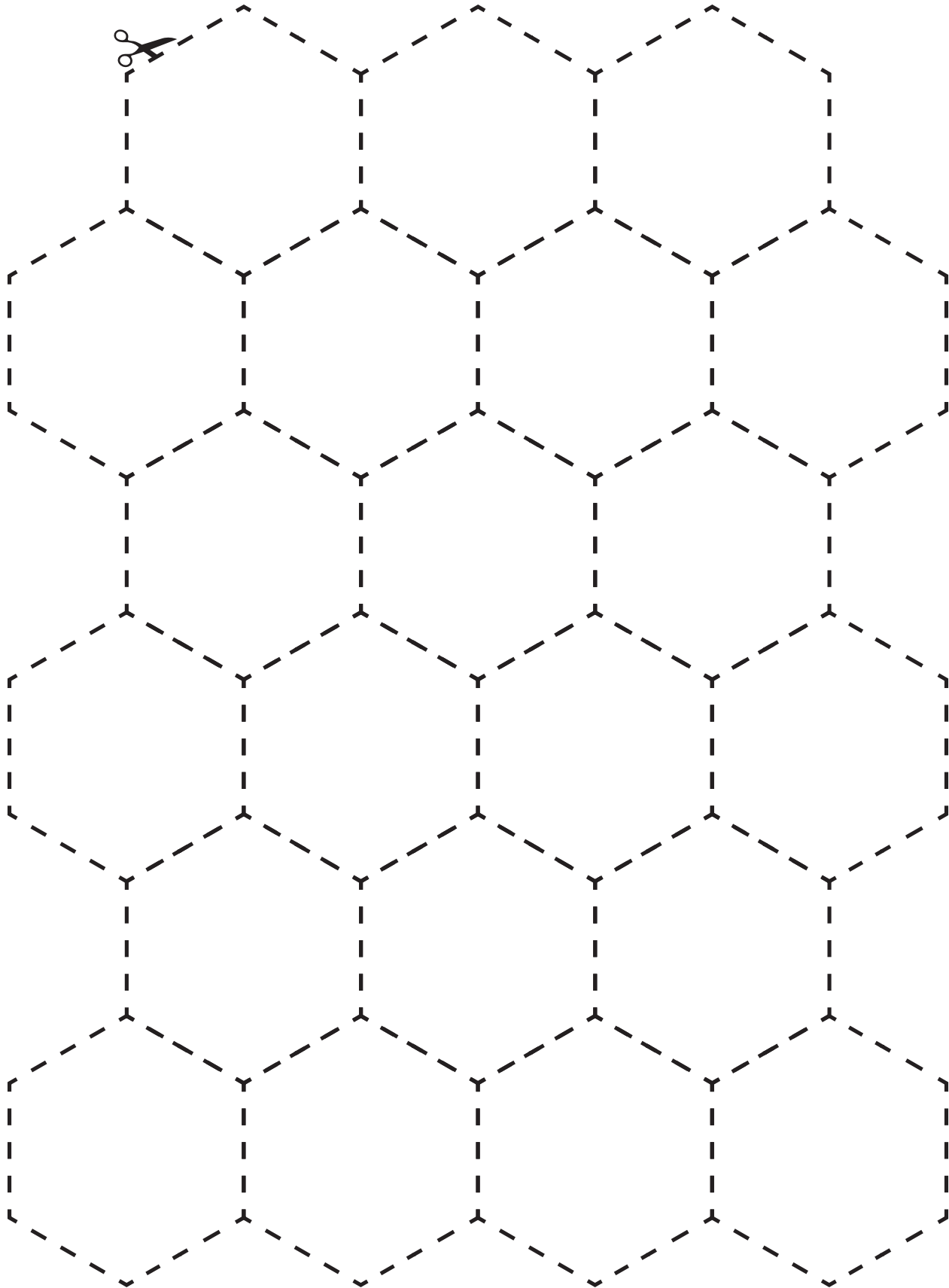


LM 1.4B Pattern Blocks: Wide Rhombus



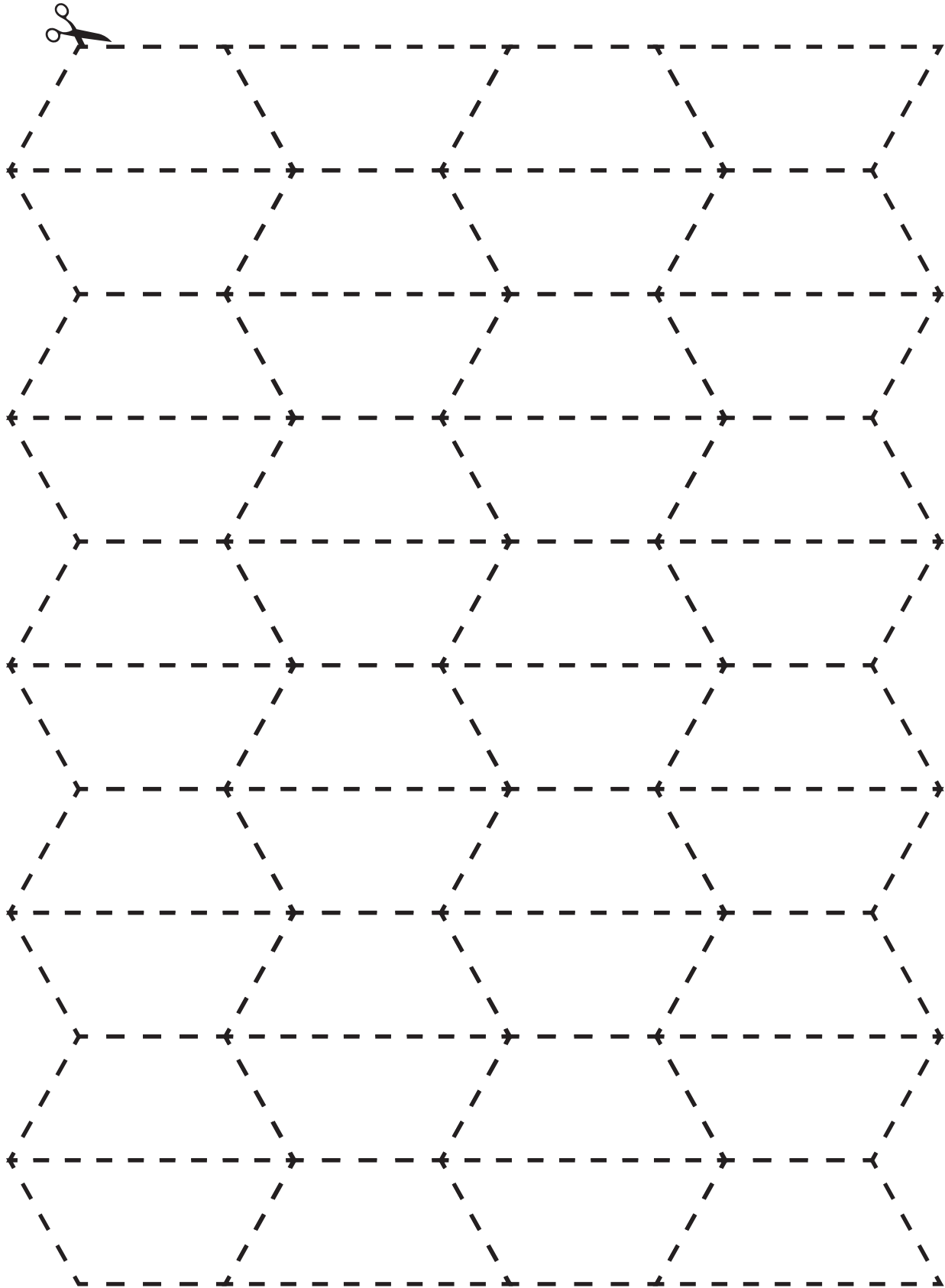


LM 1.4C Pattern Blocks: Hexagon



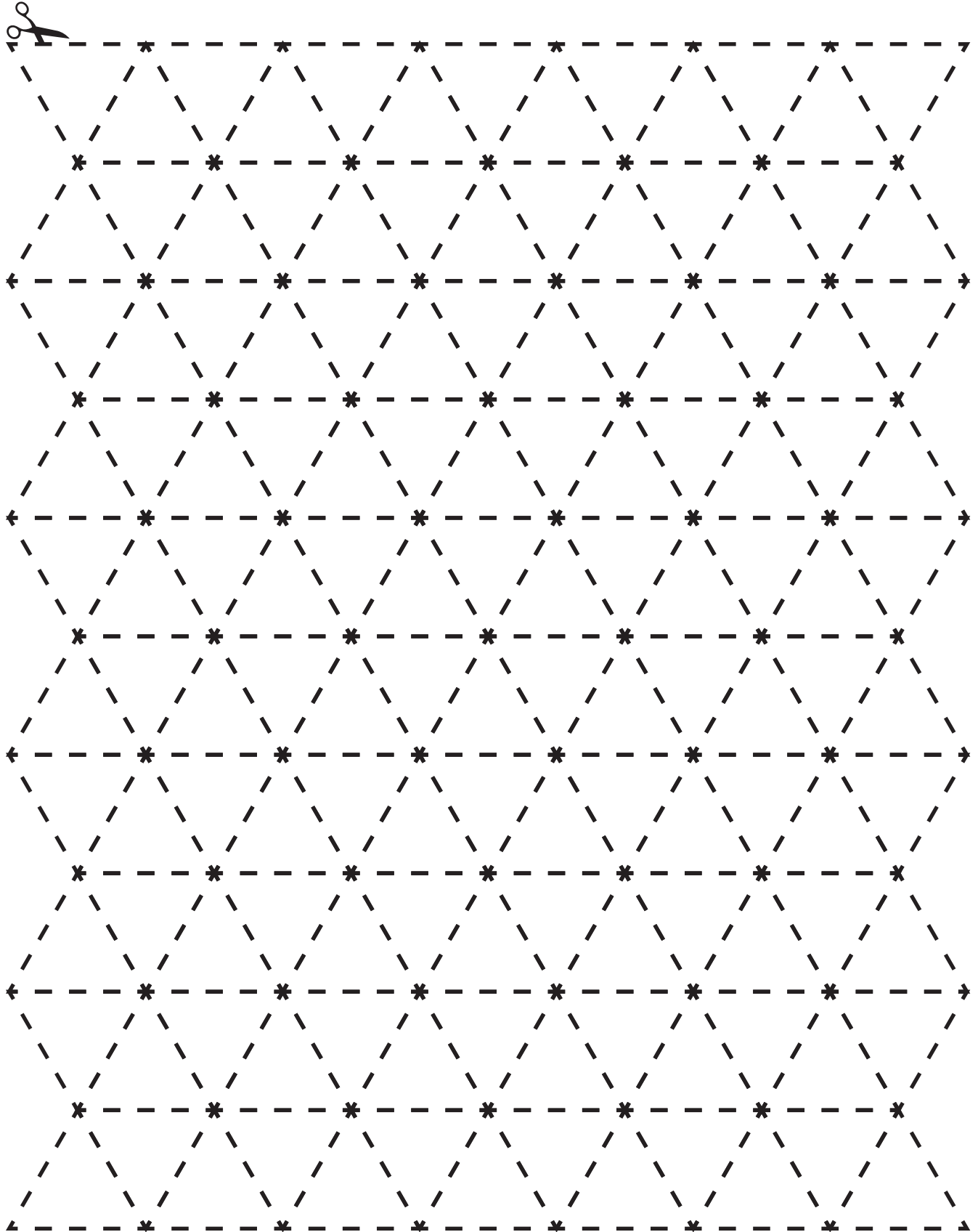


LM 1.4D Pattern Blocks: Trapezoid



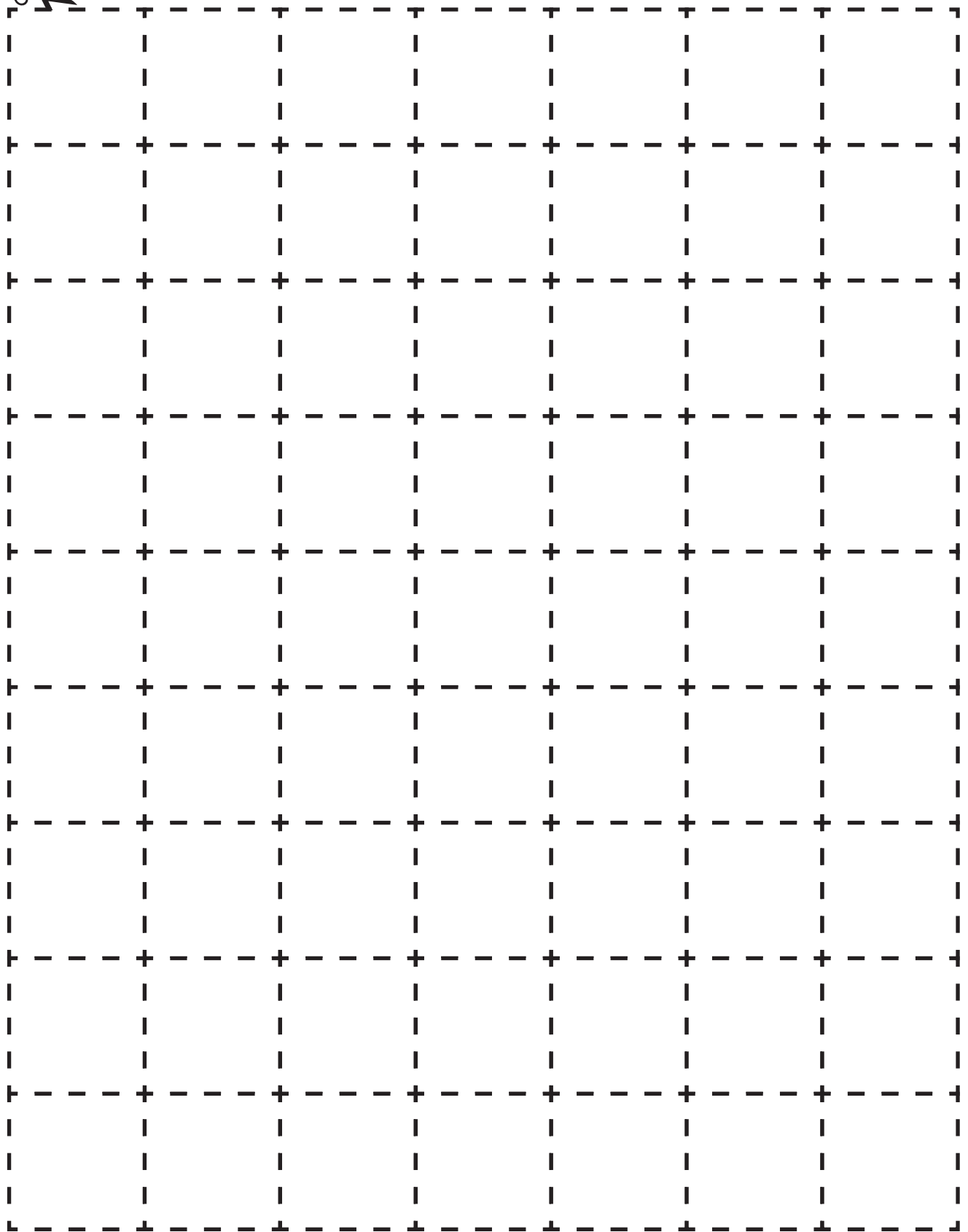


LM 1.4E Pattern Blocks: Triangle





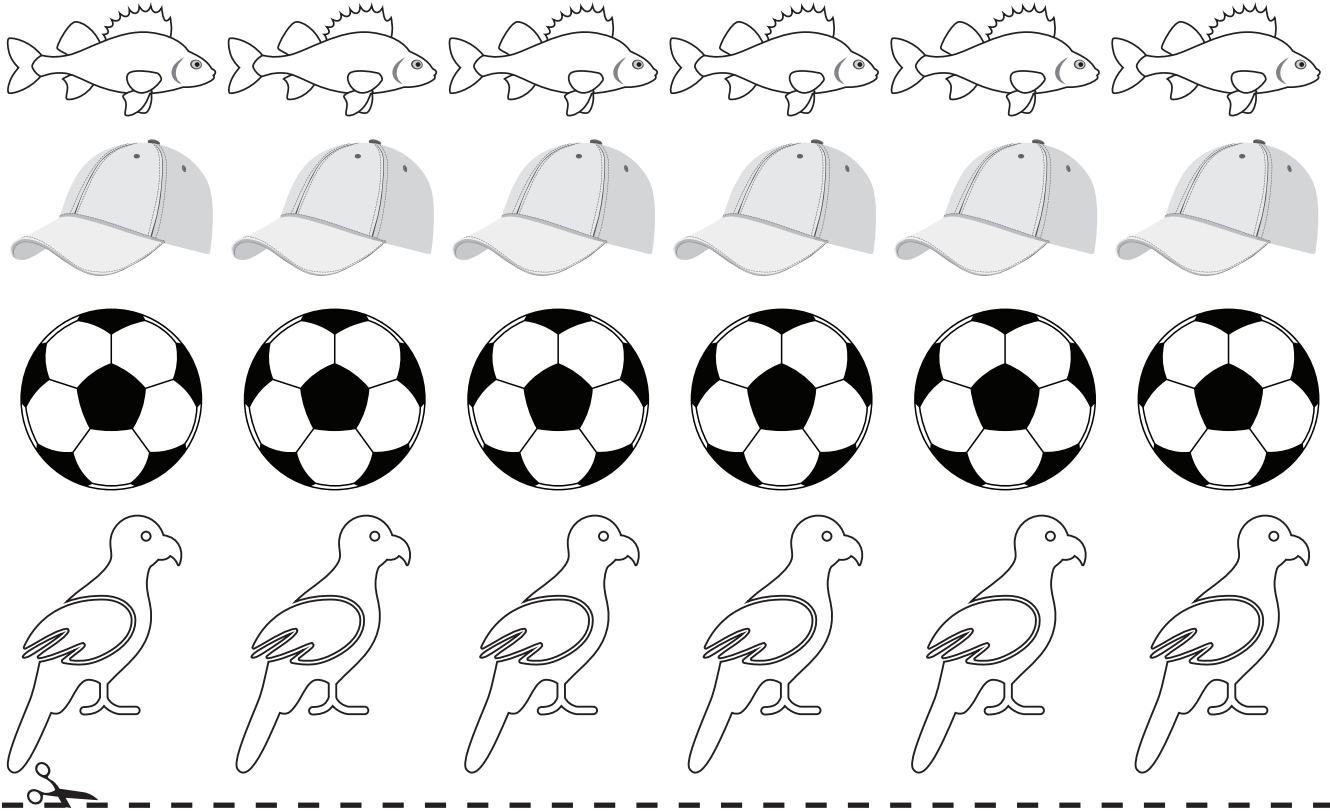
LM 1.4F Pattern Blocks: Square



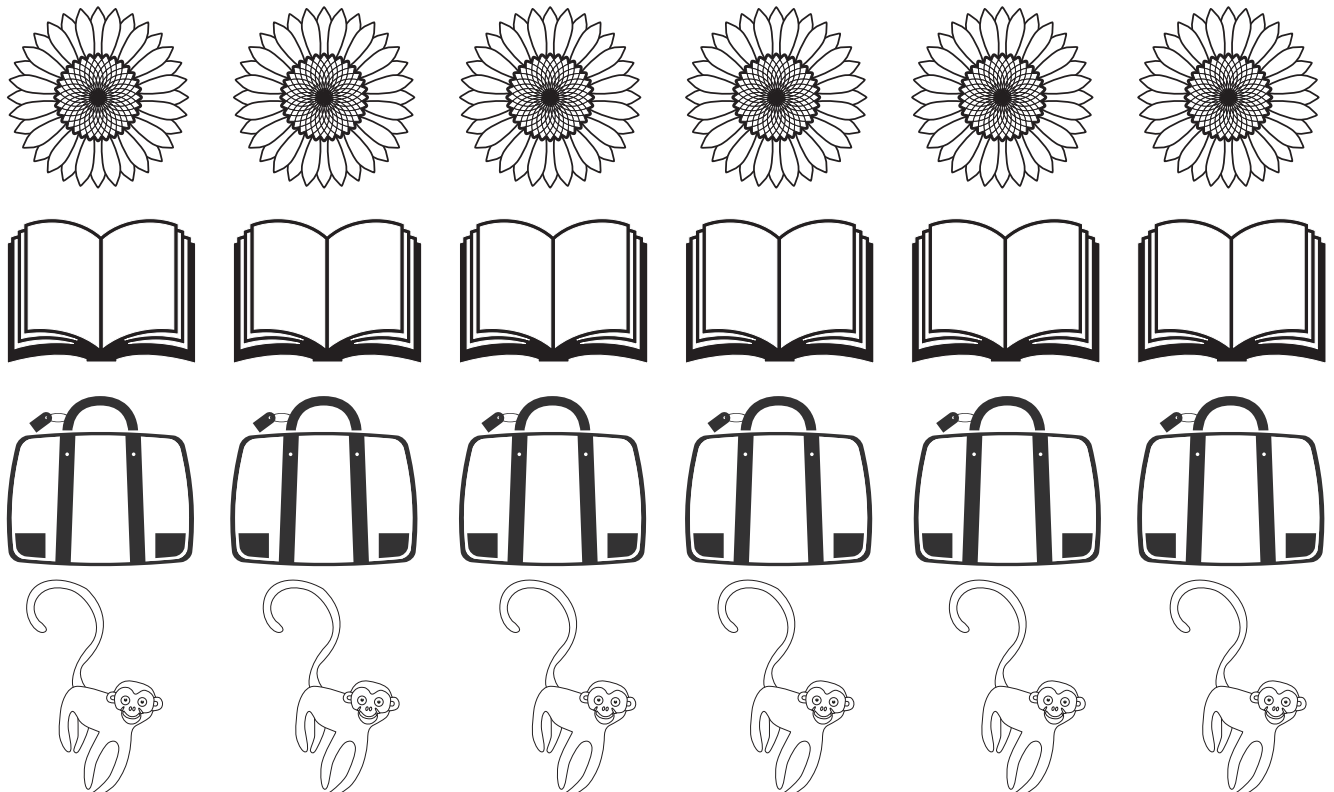


Name _____

LM 1.4G Patterns



Name _____





Name _____

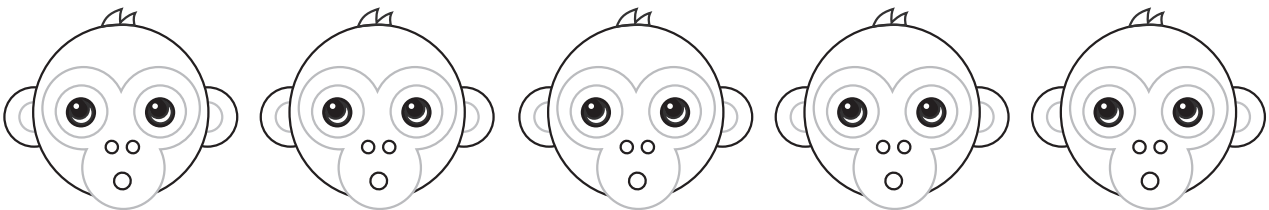
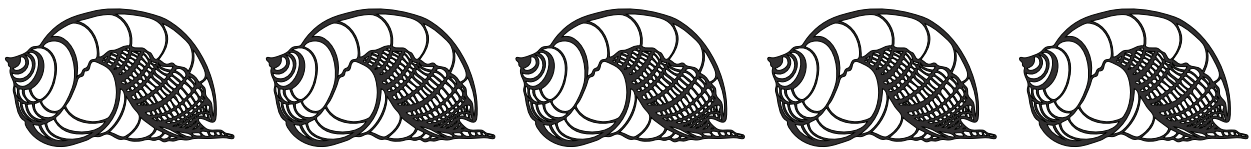
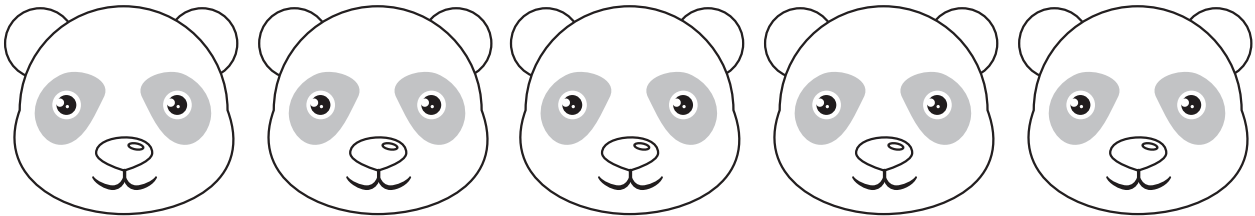
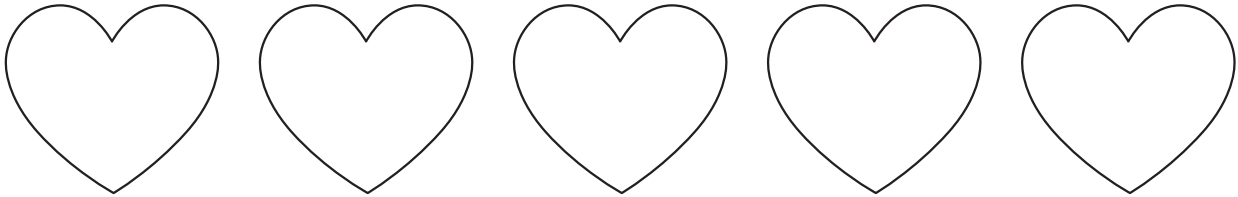
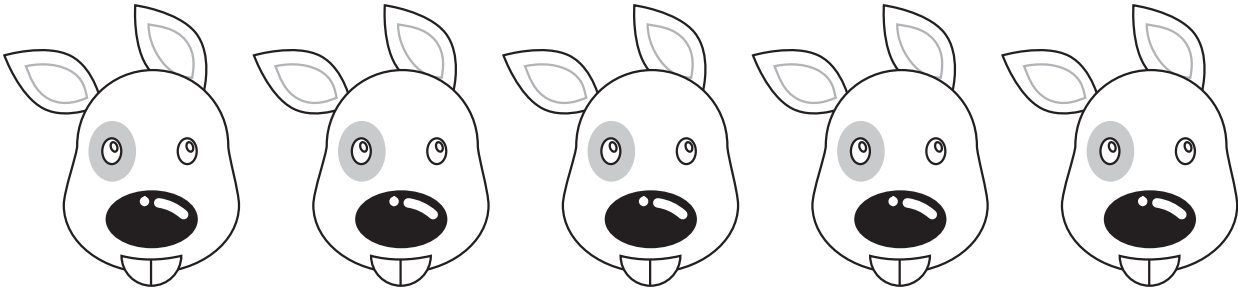
LM 1.5A Connecting Cubes



Name _____

LM 1.5B Identifying Patterns

Color to make a pattern. Leave the last one in each row for a friend to do.





LM 1.6A Flash Cards: Number Words and Numerals

two

zero

three

one



LM 1.6B Flash Cards: Number Words and Numerals

six

four

seven

five



LM 1.6C Flash Cards: Number Words and Numerals

ten

eight

eleven

nine



LM 1.6D Flash Cards: Number Words and Numerals

fourteen

twelve

fifteen

thirteen



LM 1.6E

Flash Cards: Number Words and Numerals

eighteen

sixteen

nineteen

seventeen



LM 1.6F Flash Cards: Number Words and Numerals

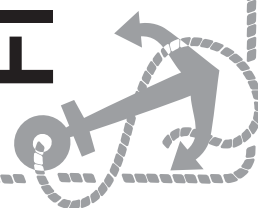
Numerals
Flash Cards



twenty

20

Number Word
Flash Cards





LM 1.6G Flash Cards: Number Words and Numerals



2

0

3

—



LM 1.6H Flash Cards: Number Words and Numerals



6

7

8

9



LM 1.6I

Flash Cards: Number Words and Numerals



0

8

=

9



LM 1.6J Flash Cards: Number Words and Numerals



Four

Two

Five

Three



LM 1.6K Flash Cards: Number Words and Numerals



8

8

6

6

9

9

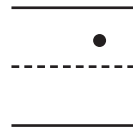
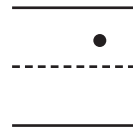
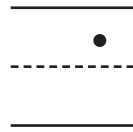
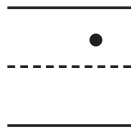
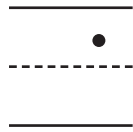
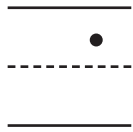
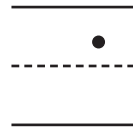
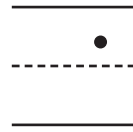
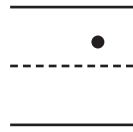
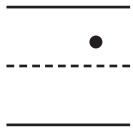
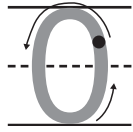
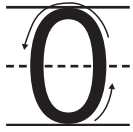
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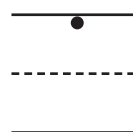
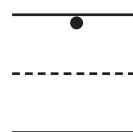
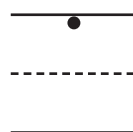
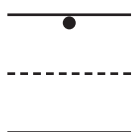
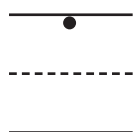
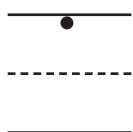
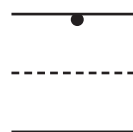
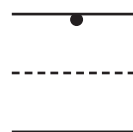
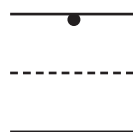
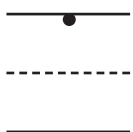
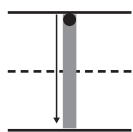
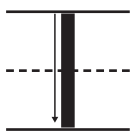


Name _____

LM 1.7A Numeral Writing Practice 0–3



Blank handwriting practice lines for the numeral 0.



Blank handwriting practice lines for the numeral 1.



Name _____

LM 1.7B Numeral Writing Practice 0–3

2

2

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Blank handwriting practice lines for the numeral 2.

3

3

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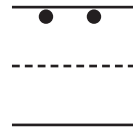
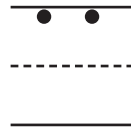
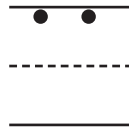
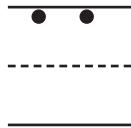
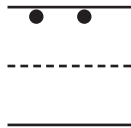
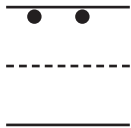
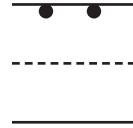
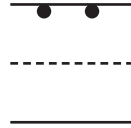
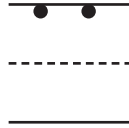
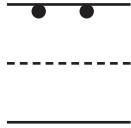
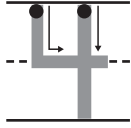
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Blank handwriting practice lines for the numeral 3.

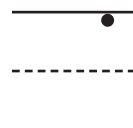
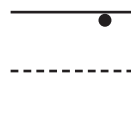
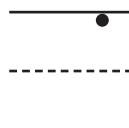
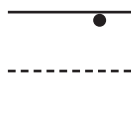
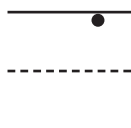
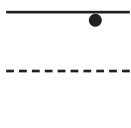
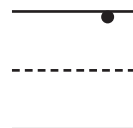
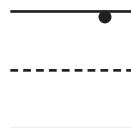
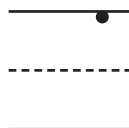
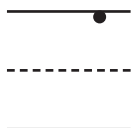


Name _____

LM 1.8A Numeral Writing Practice 4–6



Blank handwriting practice lines for the numeral 4. Each row consists of a solid top line, a dashed middle line, and a solid bottom line.

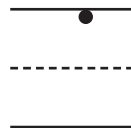
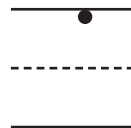
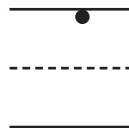
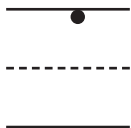
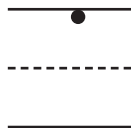
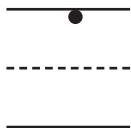
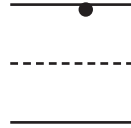
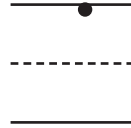
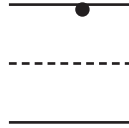
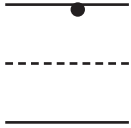
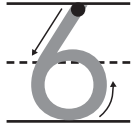


Blank handwriting practice lines for the numeral 5. Each row consists of a solid top line, a dashed middle line, and a solid bottom line.



Name _____

LM 1.8B Numeral Writing Practice 4–6



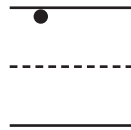
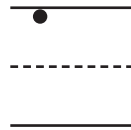
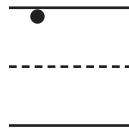
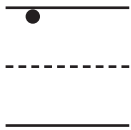
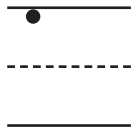
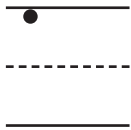
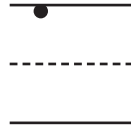
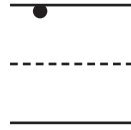
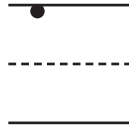
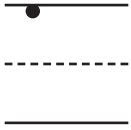
Practice the numerals 0 through 6.

Blank handwriting lines for practicing numerals 0 through 6.

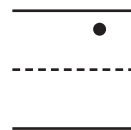
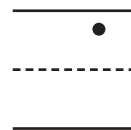
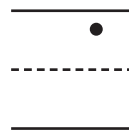
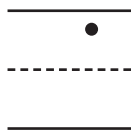
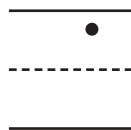
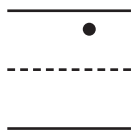
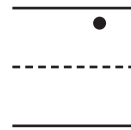
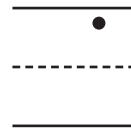
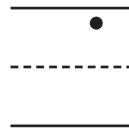
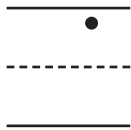
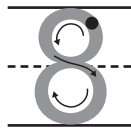


Name _____

LM 1.9A Numeral Writing Practice 7–9



Blank handwriting lines for practicing the numeral 7.

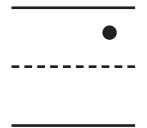
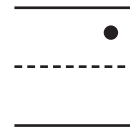
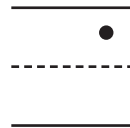
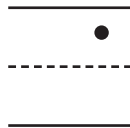
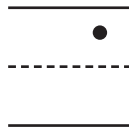
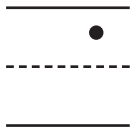
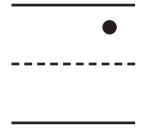
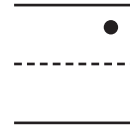
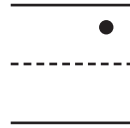
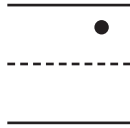


Blank handwriting lines for practicing the numeral 8.



Name _____

LM 1.9B Numeral Writing Practice 7–9



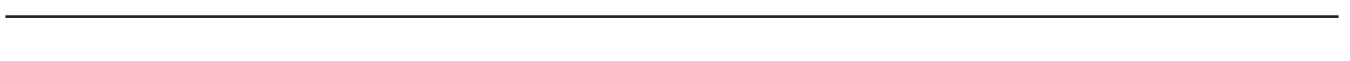
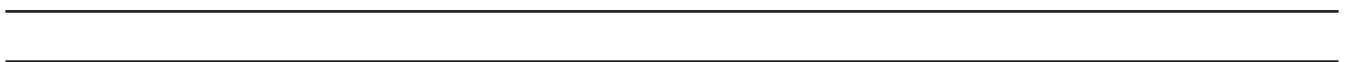
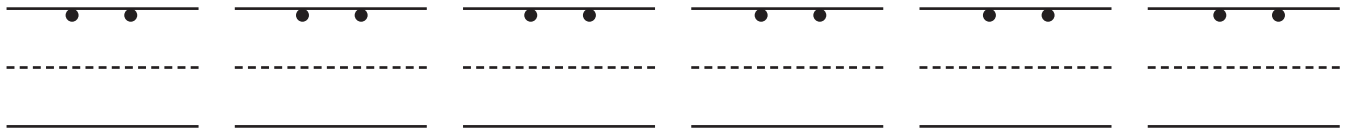
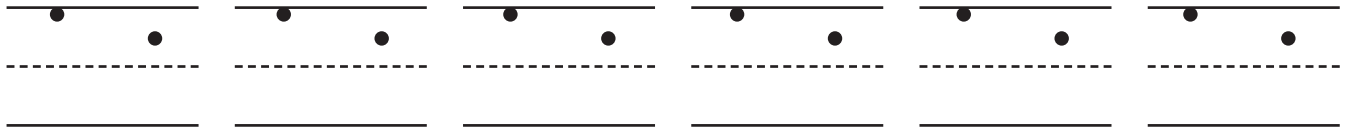
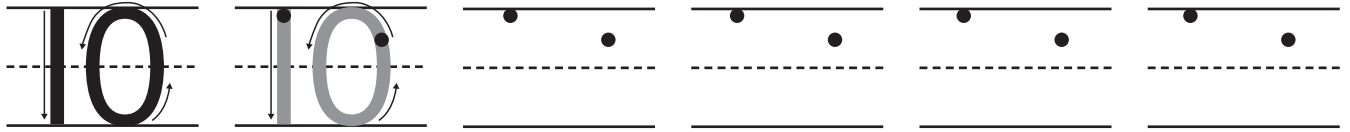
Practice the numerals 0 through 9.

Handwriting practice lines for numerals 0 through 9.



Name _____

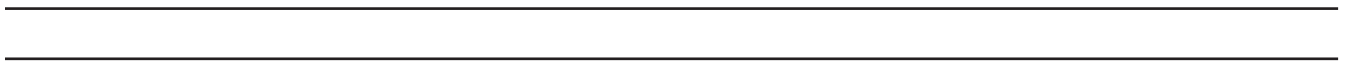
LM 1.10A Numeral Writing Practice 10–12



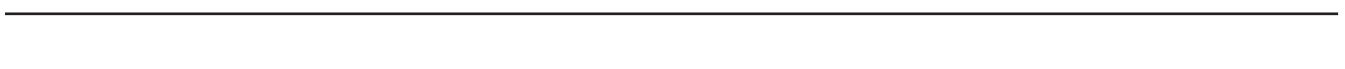
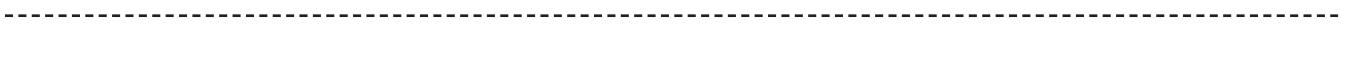
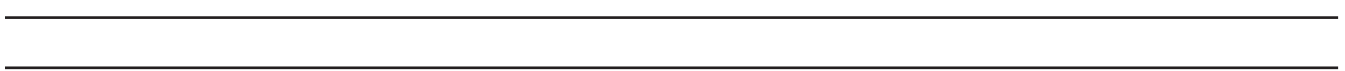
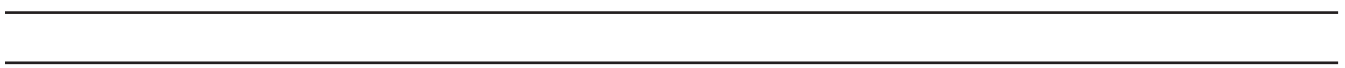


Name _____

LM 1.10B Numeral Writing Practice 10–12



Practice the numerals 0 through 12.





Name _____

LM 1.11A Numeral Writing Practice

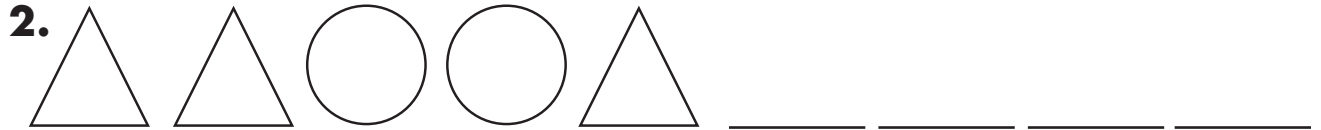
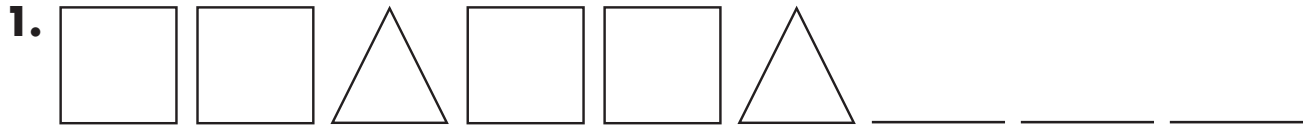
Handwriting practice lines for numeral writing. Each row consists of a solid top line, a dashed middle line, and a solid bottom line.



Name _____

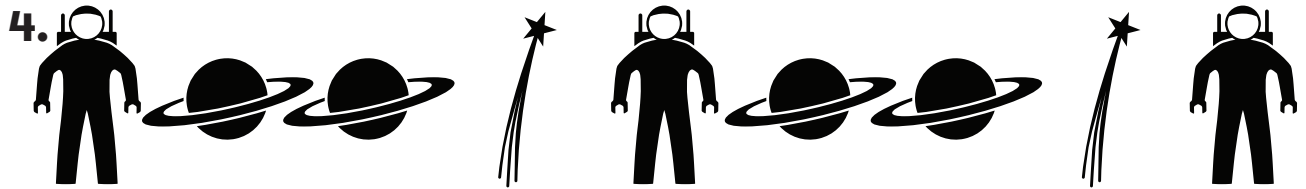
LM 1.14A Chapter 1 Test

Finish each pattern.



Use letters to name each pattern.





5. Color 2 patterns.

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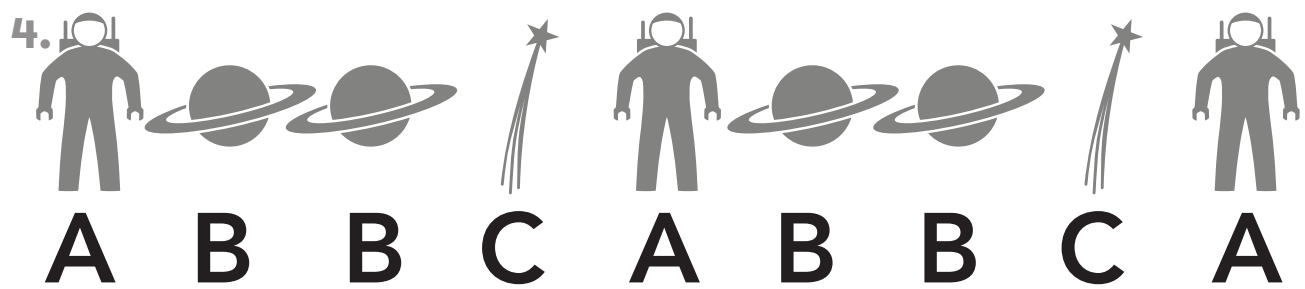
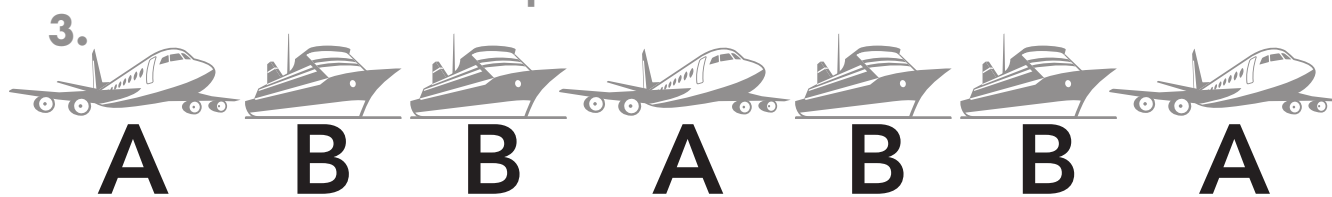


LM 1.14A Chapter 1 Test

Finish each pattern.



Use letters to name each pattern.



5. Color 2 patterns.

Answers will vary.

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Name _____

LM 1.14B Chapter 1 Test**6. Write the numerals 1 through 12.**

_____	_____	_____	_____	_____	_____
-----	-----	-----	-----	-----	-----
_____	_____	_____	_____	_____	_____
-----	-----	-----	-----	-----	-----
_____	_____	_____	_____	_____	_____

Make an X on the one that does not belong in each set.**7.****8.****Write the missing numerals. Count on or count back.**

^{9.} 13 14 _____ 16 _____

^{10.} 10 9 8 _____ 5



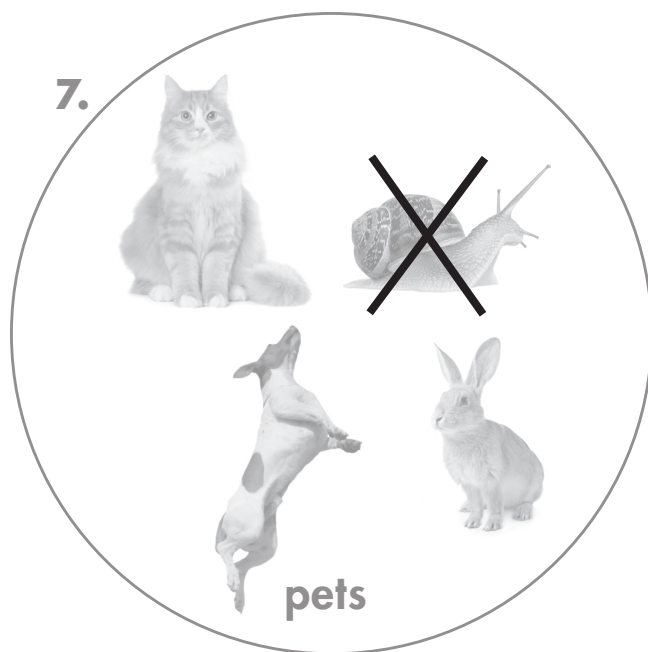
LM 1.14B Chapter 1 Test

6. Write the numerals 1 through 12.

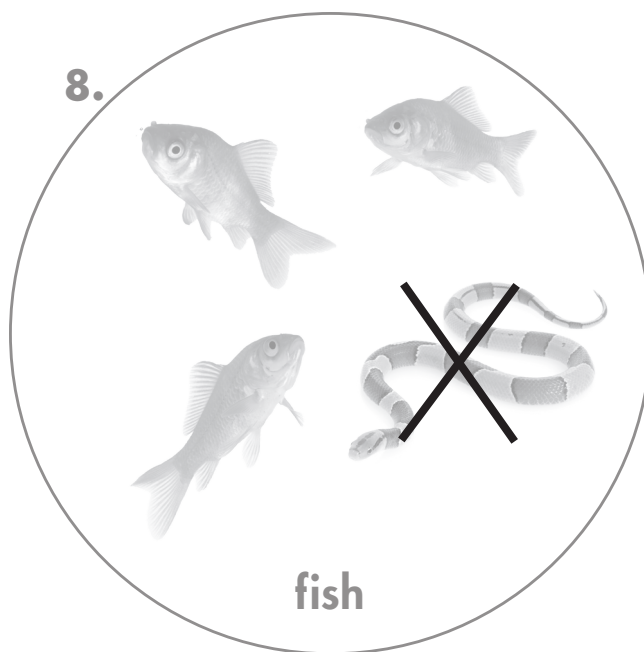
1 2 3 4 5 6
7 8 9 10 11 12

Make an X on the one that does not belong in each set.

7.



8.



Write the missing numerals. Count on or count back.

9. 13 14 15 16 17

10. 10 9 8 7 6 5



DM 1.5A

Connecting Cubes

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