

Studying the Stars

Fill in the circle by the correct answer. Then answer the questions.

1. Astronomers study things that are in _____.
Ⓐ cameras
Ⓑ the sky
Ⓒ Earth

2. Telescopes can make planets look _____.
Ⓐ closer
Ⓑ louder
Ⓒ older

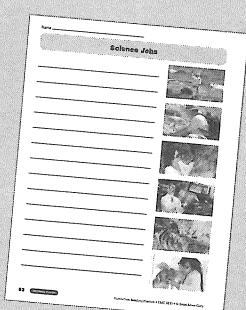
3. Name two types of things an astronomer studies.

4. What tools do astronomers use today?

Write About the Topic

Use the Writing Form to write about what you read.

Write to tell what astronomers do. Would you like to be an astronomer? Why or why not?



Patterns

Level 1 ■■

Words to Know list, Reading Selection, and Reading Comprehension questions

Finding a Pattern

A pattern repeats itself. This means you will see the same shapes again and again. To find a shape pattern, look for shapes that follow the same order.

For example, a shape pattern will show a triangle. Then it will show a circle and a square. Then the pattern will repeat. It will show another triangle. Then it will show another circle and another square.

You can guess which shape will be next in a pattern. Just think about which shapes you have already seen. The pattern below has a rectangle, then a star and an arrow. The rectangle and star repeat. This means the last shape in the pattern will be the arrow. The pattern repeated.

54 Patterns 8 Nonfiction Reading Practice • EMC 3231 Patterns 8

Words to Know
pattern repeats itself shapes order guess next seen

Is There a Pattern?

Fill in the circle by the correct answer.

Level 2 ■■■

Words to Know list, Reading Selection, and Reading Comprehension questions

Is There a Pattern?

A pattern of pictures repeats itself. This means it happens more than once. To find a pattern, study the pictures. They will appear in a special order. You will see the same pictures again and again. If you do not see repeated pictures, there is not a pattern.

Some patterns repeat only one or two shapes. Other patterns repeat more than that. You have to study the pictures carefully to see if they repeat. You can guess what comes next in the pattern.

pattern pictures repeats itself once other study carefully guess next

The pictures above are a pattern because they repeat. Sun, sun, cloud, cloud repeat. That is the pattern.

not a pattern

The pictures above do not make a pattern because they do not repeat.

55 Patterns 8 Nonfiction Reading Practice • EMC 3231 Patterns 8

Words to Know
pattern pictures repeats itself once other study carefully guess next

Is There a Pattern?

Fill in the circle by the correct answer.

Level 3 ■■■■■

Words to Know list, Reading Selection, and Reading Comprehension questions

Number Patterns

Fill in the circle by the correct answer.

1 2 3 1 2 3 1 2 —

To understand the pattern, study the order of the numbers. Think about which number should be repeated. For this number pattern, the correct guess is that a "3" comes next.

1 2 3 1 2 3 1 2 3 —

Study the number pattern below. Think about the order of the numbers. What should appear next?

4 4 8 8 4 4 8 8 4 4 —

The answer is 8.

56 Patterns 8 Nonfiction Reading Practice • EMC 3231 Patterns 8

Words to Know
patterns repeat parts already appeared guess next understand study order correct

Number Patterns

Number patterns have numbers that repeat many times. You can use the parts of the pattern that have already appeared to guess what will come next. For example, one pattern could show these numbers:

Assemble the Unit

Reproduce and distribute one copy for each student:

- Visual Literacy page: Kinds of Patterns, page 91
- Level 1, 2, or 3 Reading Selection and Reading Comprehension page and the corresponding Words to Know list
- Graphic Organizer of your choosing, provided on pages 180–186
- Writing Form: Patterns, page 92

Introduce the Topic

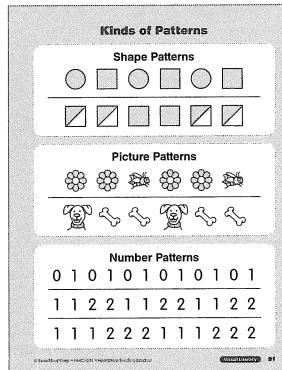
Review the patterns with students. Echo read each line of the patterns by pointing to a shape, saying its name aloud, and having students repeat. Discuss how the patterns work.

Read and Respond

Form leveled groups and review the Words to Know lists with each group of students. Instruct each group to read their selection individually, in pairs, or as a group. Have students complete the Reading Comprehension page for their selection.

Write About the Topic

Read aloud the leveled writing prompt for each group. Tell students to use the Graphic Organizer to plan their writing. Direct students to use their Writing Form to respond to their prompt.



Kinds of Patterns

Shape Patterns

○	□	○	□	○	□
□	□	□	□	□	□

Picture Patterns

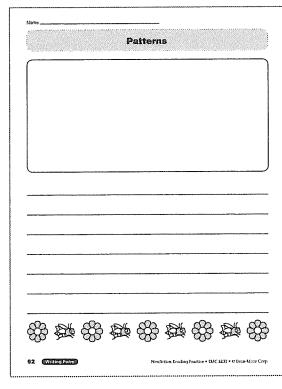
Flower	Flower	Flower	Flower	Flower	Flower
Dog	Dog	Dog	Dog	Dog	Dog

Number Patterns

0	1	0	1	0	1	0	1				
1	1	2	2	1	1	2	2				
1	1	1	2	2	2	1	1	1	2	2	2

© Evan-Moor • EMC 3231 Nonfiction Reading Practice • EMC 3231

Visual Literacy



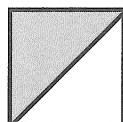
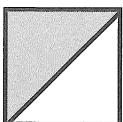
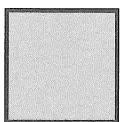
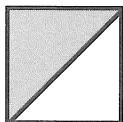
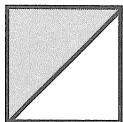
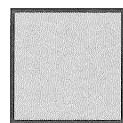
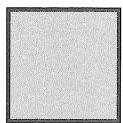
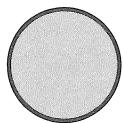
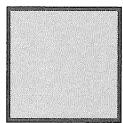
Patterns

57 Patterns 8 Nonfiction Reading Practice • EMC 3231 Patterns 8

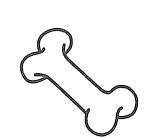
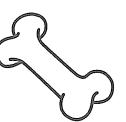
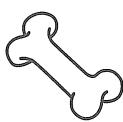
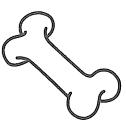
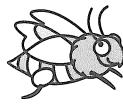
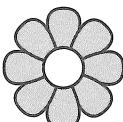
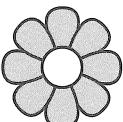
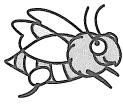
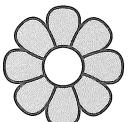
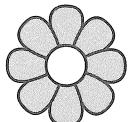
Writing Form

Kinds of Patterns

Shape Patterns



Picture Patterns



Number Patterns

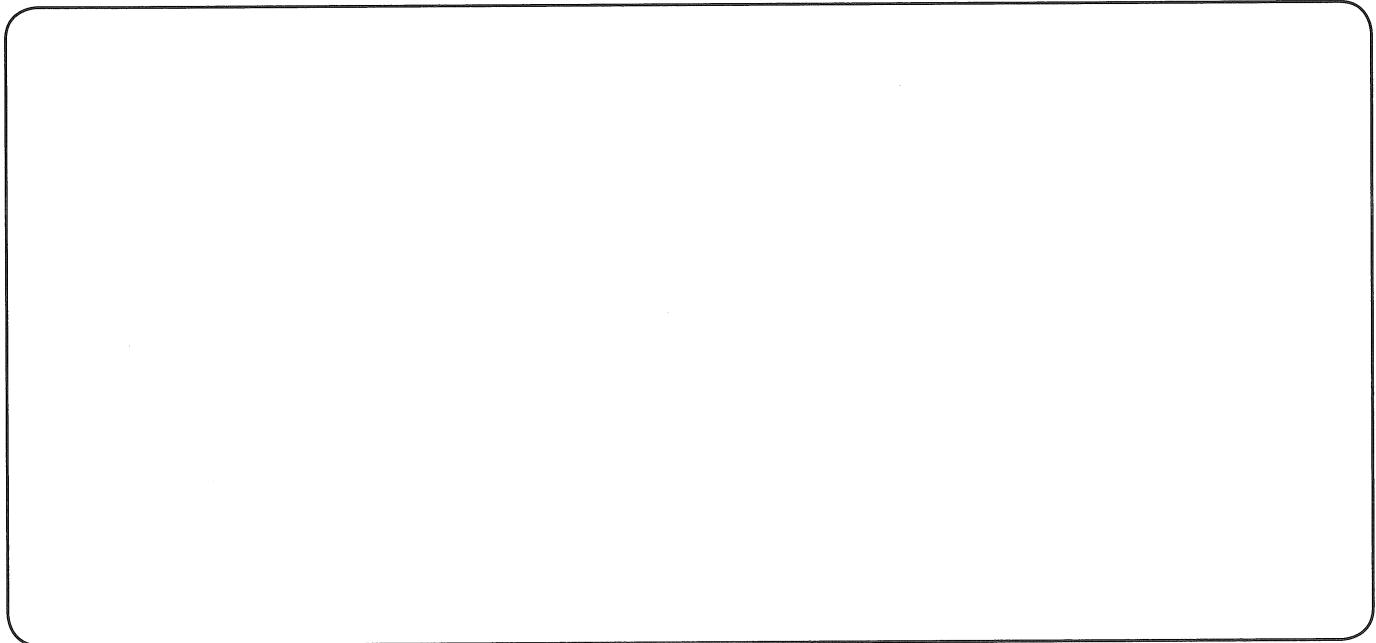
0 1 0 1 0 1 0 1 0 1

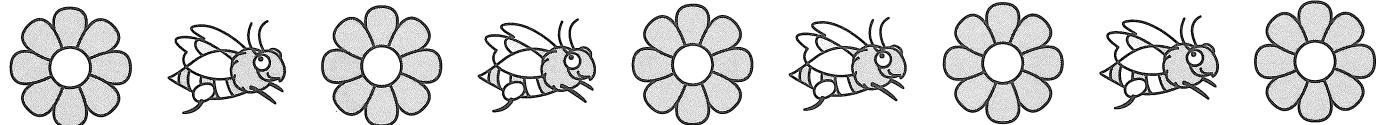
1 1 2 2 1 1 2 2 1 1 2 2

1 1 1 2 2 2 1 1 1 2 2 2

Name _____

Patterns





Words to Know

Finding a Pattern

pattern

repeats

itself

shapes

order

guess

next

seen

Words to Know

Is There a Pattern?

pattern

pictures

repeats

itself

once

other

study

carefully

guess

next

Words to Know

Number Patterns

patterns

repeat

parts

already

appeared

guess

next

understand

study

order

correct

Patterns ■

Patterns ■ ■

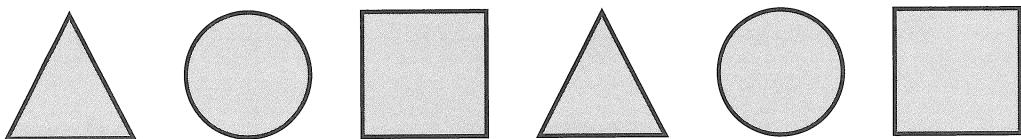
Patterns ■ ■ ■



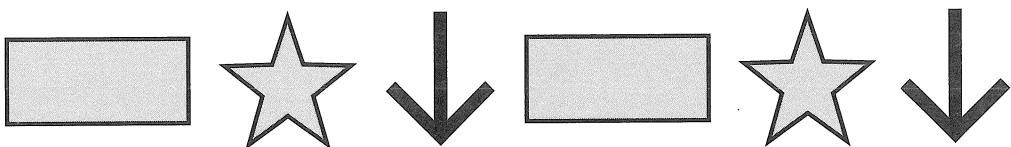
Finding a Pattern

A pattern repeats itself. This means you will see the same shapes again and again. To find a shape pattern, look for shapes that follow the same order.

For example, a shape pattern will show a triangle. Then it will show a circle and a square. Then the pattern will repeat. It will show another triangle. Then it will show another circle and another square.



You can guess which shape will be next in a pattern. Just think about which shapes you have already seen. The pattern below has a rectangle, then a star and an arrow. The rectangle and star repeat. This means the last shape in the pattern will be the arrow. The pattern repeated.



Finding a Pattern

Fill in the circle by the correct answer. Then answer the questions.

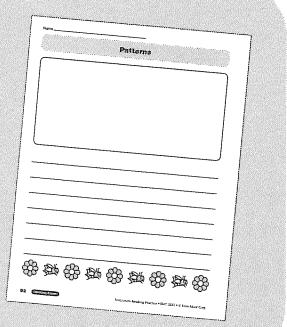
1. A shape pattern shows shapes that _____.
Ⓐ only happen once
Ⓑ repeat at least once
Ⓒ do not appear in order
2. What do you think the word **repeat** means in the text?
Ⓐ to happen one time
Ⓑ to happen again
Ⓒ to happen only two times
3. How can you guess what will happen next in a pattern?

4. Do shapes make a pattern if they do not follow the same order? Explain your answer.

Write About the Topic

Use the Writing Form to draw and write about what you read.

Draw your own shape pattern. Write to tell about your shapes. How do they show a pattern?

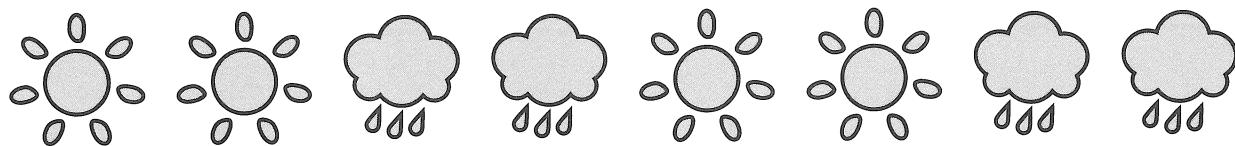


Is There a Pattern?

A pattern of pictures repeats itself. This means it happens more than once. To find a pattern, study the pictures. They will appear in a special order. You will see the same pictures again and again. If you do not see repeated pictures, there is not a pattern.

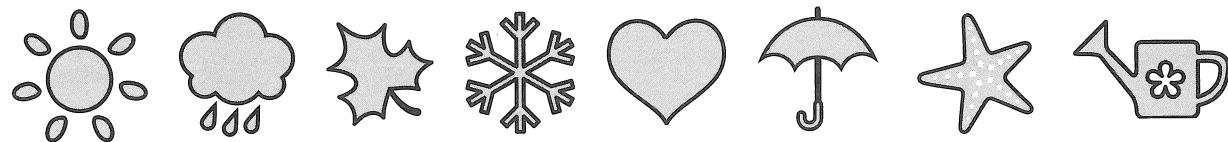
Some patterns repeat only one or two shapes. Other patterns repeat more than that. You have to study the pictures carefully to see if they repeat. You can guess what comes next in the pattern.

pattern



The pictures above are a pattern because they repeat. Sun, sun, cloud, cloud repeats. That is the pattern.

not a pattern



The pictures above do not make a pattern because they do not repeat.

Is There a Pattern?

Fill in the circle by the correct answer. Then answer the questions.

1. The word **repeat** means _____.
Ⓐ to happen only once
Ⓑ to happen only twice
Ⓒ to happen more than once

2. Patterns can have _____.
Ⓐ only one picture
Ⓑ all different pictures
Ⓒ pictures that have a special order

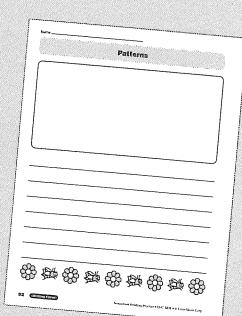
3. When is a group of pictures not a pattern?

4. What is the main idea of the text?

Write About the Topic

Use the Writing Form to draw and write about what you read.

Draw a new picture pattern. Write to tell about patterns and how you can find them.



Number Patterns

Number patterns have numbers that repeat many times. You can use the parts of the pattern that have already appeared to guess what will come next. For example, one pattern could show these numbers:

1 2 3 1 2 3 1 2 _____

To understand the pattern, study the order of the numbers. Think about which number should be repeated. For this number pattern, the correct guess is that a “3” comes next:

1 2 3 1 2 3 1 2 3

Study the number pattern below. Think about the order of the numbers. What should appear next?

4 4 8 8 4 4 8 8 4 4 _____

The answer is 8 8.