

Patterning 2 builds upon the skills introduced in the first program, while introducing new key concepts in compelling and challenging ways. Patterning problems in this program become more complex, as they are now based on two attributes which change. Additionally, students are exposed to a wider variety of patterns - geometric transformations and numerical sequences. The program also tests more detailed pattern descriptions, ultimately leading students to build their own patterns. Patterning 2 features hundreds of colorful graphics and exciting auditory awards which are sure to engage the minds of students. A series of audio instructions and help buttons ensure that students will navigate these activities easily and with confidence. Designed specifically for Grade 2 students, Patterning 2 effectively builds upon the basic principles of patterning by introducing new concepts in clear and interesting ways.

Targeted Skills

- · Complete Geometric, Pictorial and Numerical Patterns Where Two Attributes Change
- Identify Missing Entries in Geometric, Pictorial and Numerical Patterns Where Two Attributes Change
- Descriptions of Given Geometric, Pictorial and Numerical Patterns Where Two Attributes Change
- Complete Basic Numerical Patterns on Number Charts

Teacher Dashboard

The Teacher Dashboard tracks student progress throughout each program and records the percentage score for every activity completed. This feature provides an overview of how well a student is progressing and allows the teacher to identify strengths and weaknesses.

- · Records students' results automatically as they work.
- Prints reports quickly and easily for sharing with parents and staff.
- · Provides summary reports by subject or detailed reports by activity.
- Allows teachers to print reports for individual students or an entire class.
- Stores student marks in one central location for all programs.

Program Outline

The program is broken down into 5 main units, which can all be accessed from the main menu. On the following pages, each of these different units are broken down. The main menu units are:

- 1. What is Missing?
- 2. What Comes Next?
 - 3. Make the Pattern
- 4. Talking About Patterns
 - 5. Number Charts

1. What is Missing?

| ACTIVITY NAME | INSTRUCTION | REQUIRED SKILLS |
|--------------------|---|---|
| Fill in the Blanks | Fill in the missing numbers in these patterns. | Fill in a missing entry in a |
| Numbers | Type the missing number to complete each pattern. | numerical pattern. |
| Letters | Look at the pattern and type the letter that belongs where the red X is. | Fill in a missing entry in a letter pattern. |
| Shapes | Look at the pattern and click the shape that belongs where the red X is. | Fill in a missing entry in a geometric pattern. |
| Students | Your teacher arranges the desks in a pattern that goes GIRL, GIRL, BOY. Fill in the missing entries from the pattern. | Fill in missing entries in a word pattern. |

2. What Comes Next?

| ACTIVITY NAME | INSTRUCTION | REQUIRED SKILLS |
|-----------------------------------|--|---|
| Counting by Ones | Counting by ones, which number comes before / after this number? | |
| Counting by Twos | Counting by twos, which number comes before / after this number? | Determine the next entry for a given numerical pattern. |
| Numbers (2 activities) | Type the next number in each pattern. | |
| Next Three Numbers (2 activities) | Select the correct group of 3 numbers that continues the pattern above. | Determine the next 3 entries for a given numerical pattern. |
| Flowers | Look at the pattern of flowers at the top of the screen, then click on the flower that comes next. | Determine the next entry for a given pictoral pattern. |
| Blocks | Look at the pattern of blocks and determine which blocks would come next in the sequence. | Determine the next entry for a given geometric pattern. |
| Triangles (2 activities) | Look at the pattern of triangles at the top of the screen, then click on the triangle that comes next. | |

3. Make the Pattern

| ACTIVITY NAME | INSTRUCTION | REQUIRED SKILLS |
|---------------------|---|--|
| Clothes | Listen to the pattern and click on the group of 3 items of clothing that continues the pattern. | Create a pictoral pattern from a spoken sequence. |
| Letters | Listen to the letter patterns and type each pattern you hear. | Create a letter pattern from a spoken sequence. |
| Increasing Patterns | Click on the numbers in order to make the pattern requested. (eg. "Up by 3's") | Create a numerical pattern from a printed description. |
| Decreasing Patterns | | |
| Match the Numbers | Match the missing numbers with their patterns by clicking on them. | Complete a numerical pattern. |

4. Talking About Patterns

| ACTIVITY NAME | INSTRUCTION | REQUIRED SKILLS |
|---------------------------------|---|--|
| Addition or Subtraction? | Read the pattern at the top of the screen and click on addition if it is going up or subtraction if it is going down. | Determine whether a printed numerical pattern is based on addition or subtraction. |
| Describe the Color Pattern | Click on the geometric pattern that matches the typed pattern at the top of the screen. | Match a printed description |
| Describe the Shape Patterns | Pick the correct description for each geometric pattern shown. | with a geometric pattern. |
| Fruit Loops | Various questions about how fruit loops are arranged in a bowl. | Recognize a pattern in a pictoral arrangement. |
| Describe the Number Patterns | Match the number pattern with its description. | Match a printed description with a numerical pattern. |

5. Number Charts

| ACTIVITY NAME | INSTRUCTION | REQUIRED SKILLS |
|---------------|---|---|
| Number Charts | Look at the pattern on the number chart and then click on the next 10 numbers of the pattern. | Use a hundreds chart to continue a given numerical pattern. |