

DMT INSTITUTE

Developing Mathematical Thinking Institute (DMTI)



Professional
Development



Curricular
Resources



Assessment

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About the DMTI Targeted Activities

These DMTI Targeted Activities modules are designed to be played or completed with a partner or in small groups. These supplement the Primary Math Assessment and DMTI curricular materials.

The activities are intended for teachers or caregivers to play with children to build necessary math skills and math language. Each activity can be played for 10 to 20 minutes. And if there are additional activities in a module, they are built to be more advanced.

PMA – Grade 1

Sequencing – Patterns

Sequencing

What's involved:

- Finding patterns
- Counting forward and backward
- Recognizing numbers
- Determining quantity

Why it matters:

- Builds one-to-one correspondence
- Begins to build proportional reasoning, which is important for many math ideas and STEM careers
- Leads to efficient computation and stronger number sense and flexible thinking

Sequencing: Patterns

Materials

- Red/Yellow Chips (DMTI Math Pack) or blocks

Sequencing: Patterns

Activity I

Look at the bar model and answer the following questions:

1. What is the base unit you see being repeated over and over?
2. How many units are in the pattern?
3. Describe the patterns of colors.
4. What is the total number of squares?



Sequencing: Patterns

Example

Look at the bar model and answer the following questions.

1. What is the base unit you see being repeated over and over?
2. How many units are in the pattern?
3. Describe the patterns of colors.
4. What is the total number of squares?



2 blue and 1 white




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Blue is 2, 4, 6 and white is 1, 2, 3.

There are 9 total squares.




Sequencing: Patterns

Try these and check to see the answer. (Use the arrow keys to check.)

Pattern	What is the base unit?	What pattern do you notice?
		
		
		

Sequencing: Patterns

Try these and check to see the answer. (Use the arrow keys to check.)

Pattern	What is the base unit?	What pattern do you notice?
	2	<i>I see 1 orange and 1 white that repeats.</i>
	4	<i>I see 3 pink and 1 white that repeats.</i>
	5	<i>I see 3 blue and 2 green that repeats.</i>

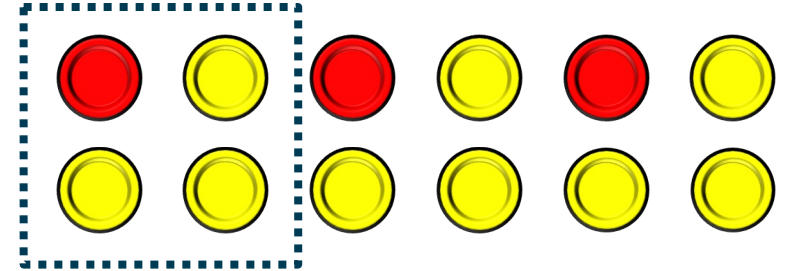
Sequencing: Patterns

Activity II

(Use the red and yellow chips from the DMTI Math Pack.)

Look at the chips and answer the following questions:

1. What is the base unit?
2. How many units are in the pattern?
3. Describe the patterns of colors.
4. What is the total number of chips?



The base unit is a square with 1 red chip and 3 yellow chips.

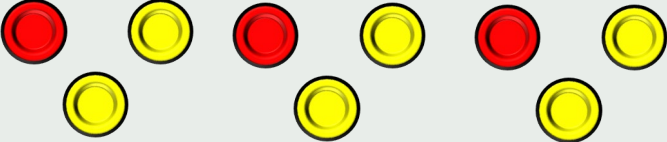
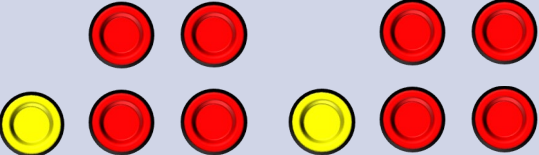
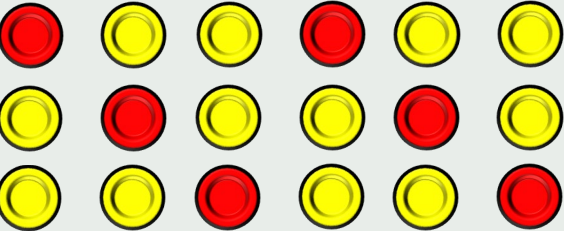
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There are 1, 2, then 3 red and 3, 6 and 9 yellow.

There are 12 total chips.

Sequencing: Patterns

Try these patterns.

Pattern	What is the base unit?	What pattern do you notice?
		
		
		

Sequencing: Patterns

Activity III

(Use the red and yellow chips from the DMTI Math Pack.)

Ask the child to create their own patterns (using two colors) by composing a unit and then repeating it two or three times.

Continue asking the following:

1. What is the base unit?
2. How many units are in the pattern?
3. Describe the patterns of colors.
4. What is the total number of squares?

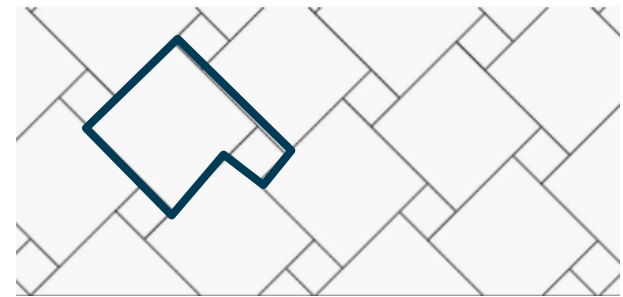
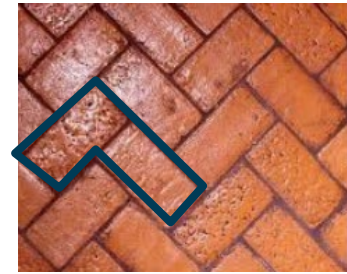
Sequencing: Patterns

Activity IV

Look around your environment and find units that repeat to make a pattern.

Two bricks make a unit. 1 brick is turned (rotated) sideways to make the unit.

The tiles have a larger square and smaller square as the base unit that repeats.





“The Developing Mathematical Thinking Institute (DMTI) is dedicated to enhancing students’ learning of mathematics by supporting educators in the implementation of research-based instructional strategies through high-quality professional development, curricular resources and assessments.”

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