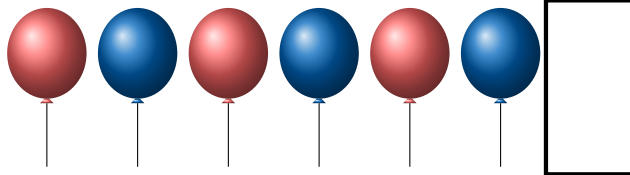# SEQUENCES

A PERIODIC SEQUENCE

We see periodic sequences in many areas of our lives, from the changing seasons to the steps we take when brushing our teeth. Learning about sequences can help us notice patterns, make predictions, and understand the world around us.
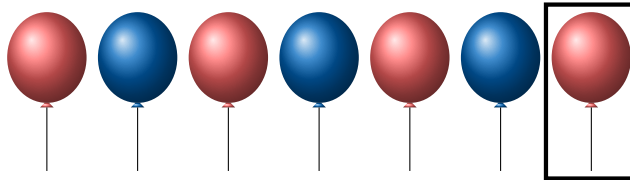
> **Definition Periodic sequence**
>
> A **periodic sequence** is a repeating cycle of shapes, colors, sounds, movements, numbers, or other elements.

Ex: What do you think the color of the next balloon in the sequence will be?

Answer: The color of the next balloon is red.

B NUMERICAL SEQUENCE

> **Definition Numerical sequence**
>
> A **numerical sequence** is a list of numbers that follow a rule. Each number in the sequence follows this rule, helping us know what the next number will be.

Ex: What is the the next number in the sequence?

$$0, 1, 2, 3, 4, ?$$

Answer: The next number is 5, because each number increases by 1.

$$\overset{+1}{\frown}\ \overset{+1}{\frown}\ \overset{+1}{\frown}\ \overset{+1}{\frown}\ \overset{+1}{\frown}$$
$$0\ ,\ 1\ ,\ 2\ ,\ 3\ ,\ 4\ ,\ \boxed{5}$$