

# Marble Empire Learning Activity #1:

## Basic Pieces

### Summary:

We suggest doing this activity the very first time you open and start playing with Marble Empire.

In this activity, children will learn about the **twelve basic pieces** of the Marble Empire toy. Children will learn to **describe the positions of pieces** in relation to one another and begin to understand how each piece will influence the behavior of the marble.

### Reference Standards:

Next Generation Science Standards:

[K-2-ETS-1-1](#)

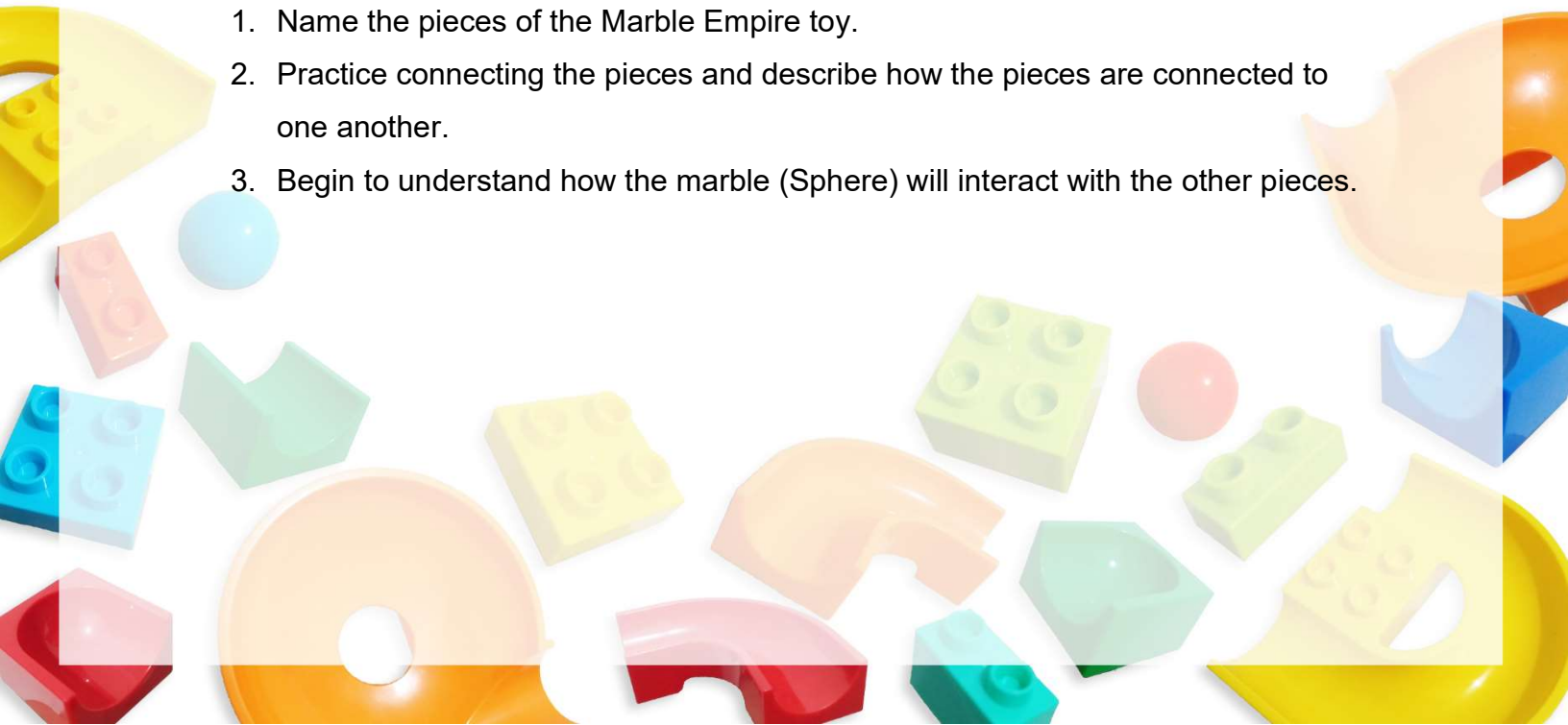
Common Core Standards:

[KGA 1-3](#)

[KGB 4](#)

### Learning Goals:

1. Name the pieces of the Marble Empire toy.
2. Practice connecting the pieces and describe how the pieces are connected to one another.
3. Begin to understand how the marble (Sphere) will interact with the other pieces.



## Materials:

Marble Empire includes 12 basic pieces. Most pieces come in multiple colors. Collect at least one example of each of the 12 pieces:

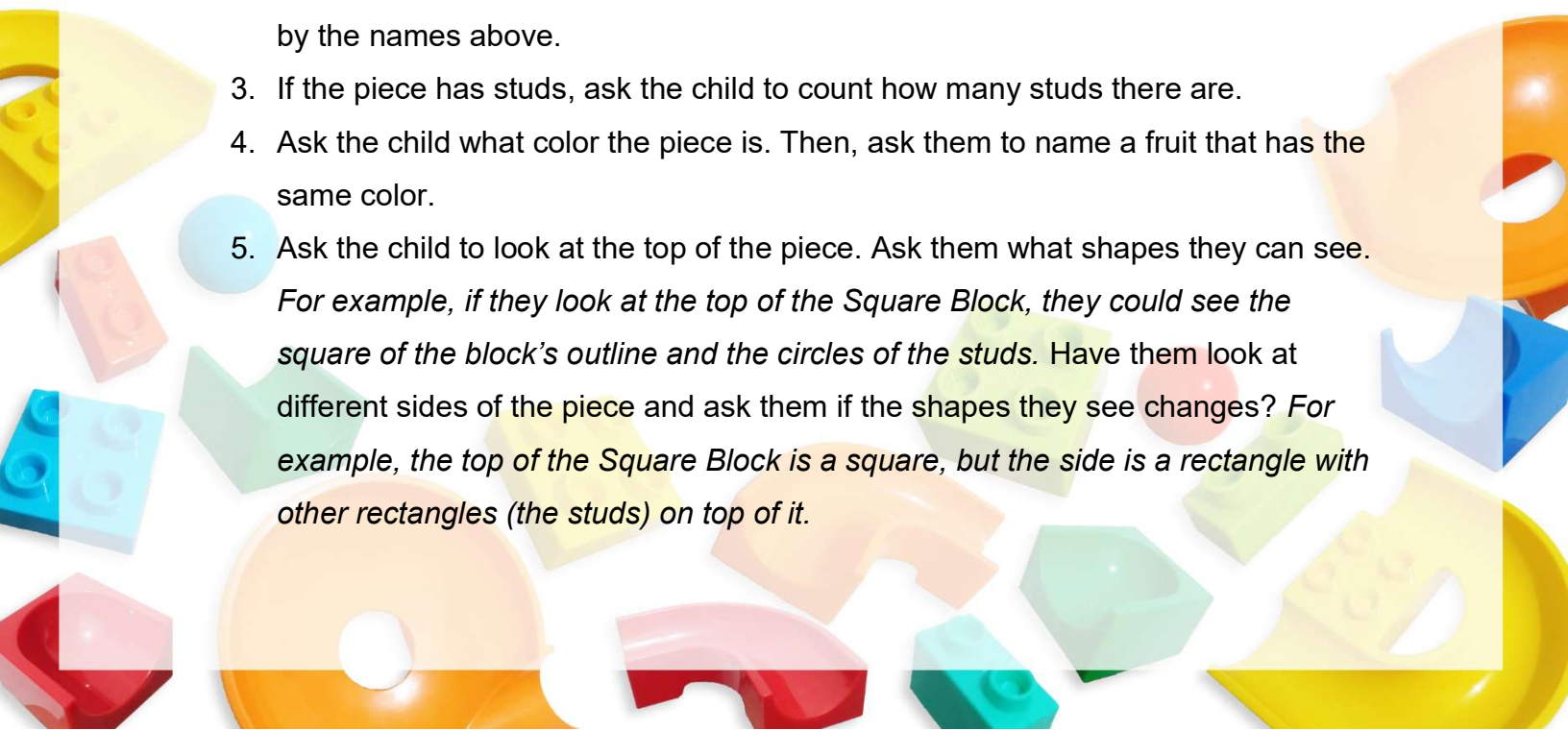
1. Sphere
2. Square Block
3. Rectangular Block
4. Ramp
5. Curve (Semicircle)
6. Curve (Quarter Circle)
7. Curve (Corner)
8. Dead End
9. Funnel
10. Flag Pole
11. Flag
12. Flower

## Part One: Naming the Pieces

Repeat the following steps with each of the 12 basic pieces:

1. Hold up the piece. Ask the child what the piece is called.
2. Accept their answer, and then tell them that in Marble Empire, we call the pieces by the names above.
3. If the piece has studs, ask the child to count how many studs there are.
4. Ask the child what color the piece is. Then, ask them to name a fruit that has the same color.
5. Ask the child to look at the top of the piece. Ask them what shapes they can see.

*For example, if they look at the top of the Square Block, they could see the square of the block's outline and the circles of the studs. Have them look at different sides of the piece and ask them if the shapes they see changes? For example, the top of the Square Block is a square, but the side is a rectangle with other rectangles (the studs) on top of it.*



6. Ask the child what they think the piece can do in Marble Empire.
7. Place the piece back with the others.

## Part Two: Learning About the Sphere

1. Ask the child to find the Sphere.
2. Ask them what makes the Sphere special in Marble Empire. How is it different from the other pieces? Try to get them to see that the Sphere is different because it moves through Marble Empire and does not connect to the other pieces.
3. Place the Sphere to the side.

## Part Three: Connecting the Pieces

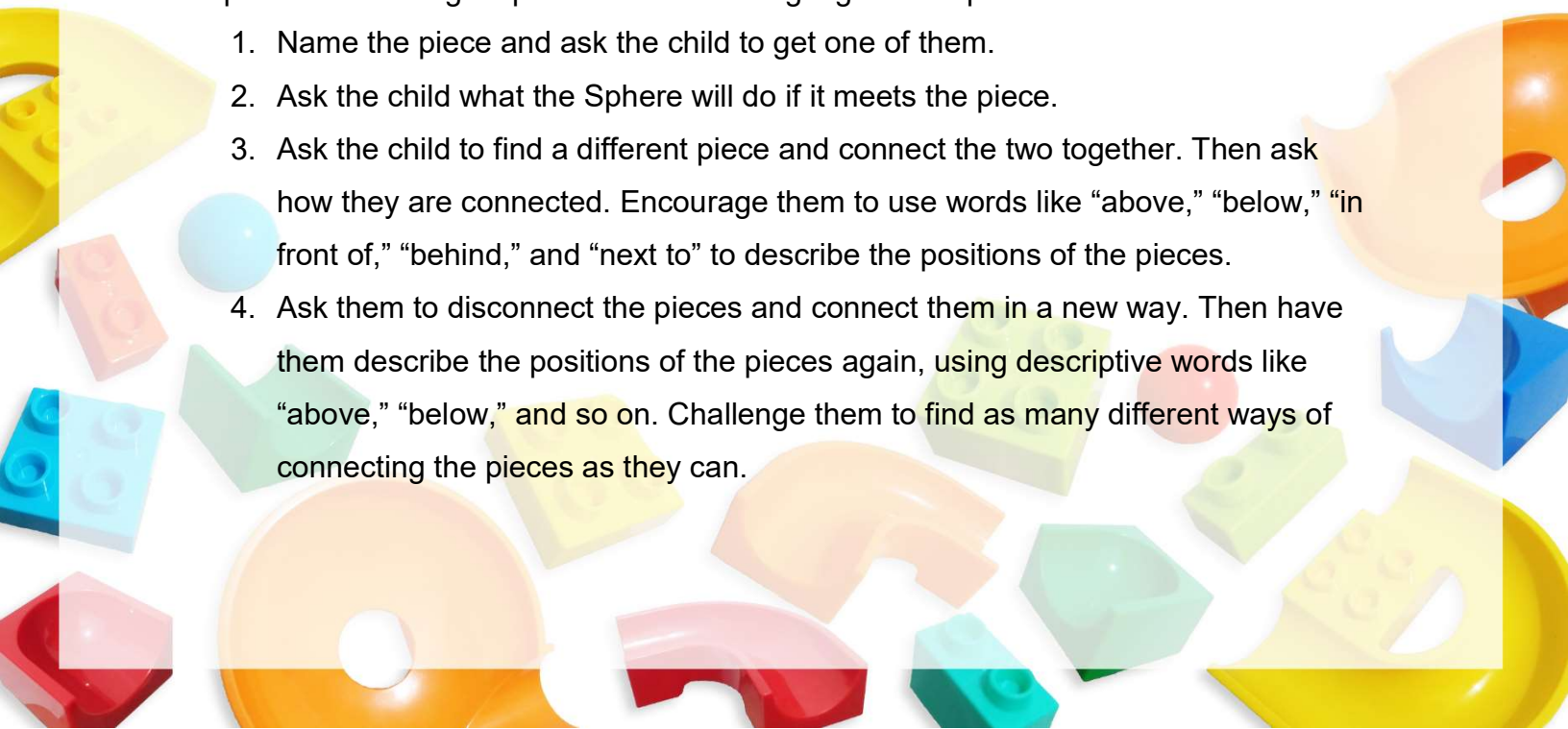
Next, the child will begin exploring Marble Empire by connecting some of the pieces together and seeing how they interact with the sphere.

First, **set the Flag Pole, Flag and Flower aside with the Sphere.**

Then **demonstrate how the pieces connect to one another.** *The studs on tops of some of the pieces connect to the tubes on the bottoms of all the pieces.*

Repeat the following steps with the remaining eight basic pieces:

1. Name the piece and ask the child to get one of them.
2. Ask the child what the Sphere will do if it meets the piece.
3. Ask the child to find a different piece and connect the two together. Then ask how they are connected. Encourage them to use words like “above,” “below,” “in front of,” “behind,” and “next to” to describe the positions of the pieces.
4. Ask them to disconnect the pieces and connect them in a new way. Then have them describe the positions of the pieces again, using descriptive words like “above,” “below,” and so on. Challenge them to find as many different ways of connecting the pieces as they can.



5. You can also have the child close their eyes while you connect two of the pieces. Then have them describe how those pieces are connected. (This is a great option if the child isn't able to find all of the ways to connect them by themselves).
6. Have the child disconnect the pieces and place them back with the rest.

## Part Four: The Flag Pole, Flag and Flower

1. Have the child collect the Flag Pole, Flag and Flower pieces.
2. Ask the child what makes these pieces different from the others. *For example, these pieces could have different colors, purposes, or interactions with the other pieces.*
3. Ask the child to connect these pieces to each other as well as the other Marble Empire pieces. Challenge them to find as many different ways to connect them as they can.
4. Congratulate the child for learning all about Marble Empire. Next, it will be time to build!

## Assessment

1. Make sure the child can correctly identify and name each of the 12 basic pieces of Marble Empire.
2. See if the child can connect each piece to another in a couple of different ways and describe how they are connected.

