## Numbers, Numbers, 1, 2, 3

Players 1+ $\quad$ Ages $2 \quad \vdots \quad 5-10 \mathrm{~min}$

## GOAL

To say and to show how many fingers are being held up.

## MATERIALS

## VOCABULARY

How many
Same
Different

Hands


## QUESTIONS

How many fingers do you see?
Can you show me a different way to show that many?

## HOW TO PLAY

1. Hold your hands behind your back.
2. Chant, "Numbers, numbers, 1, 2, 3. How many fingers do you see?" Hold up three fingers on one hand.
3. Wait for children to say "three" and ask them to show three using their own fingers.
4. Put your hands behind your back again and continue playing with different numbers of fingers.
5. Vary the ways you hold up your fingers. You can show three:


## OR



## TIPS FOR PLAYING

- Start with 1 to 5 fingers. As children progress, show 6 to 10 fingers.
- If children are ready for numbers more than 10 , you can ask a friend to lend their hands to make numbers up to 15 or 20.
- This game can be played anywhere. You can play for a short time or a long time. It's great when you're waiting in line or as a transition activity in the classroom.


## WHAT CHILDREN ARE LEARNING

- Five is a great number to start practicing composing numerals because we have five fingers on each hand.
- This game helps children recognize that smaller numbers are "hiding inside" larger numbers (e.g., that 3 and 1 are two parts of 4).


## MATH TOPICS

## Number: Counting and Cardinality

## VIDEO



## Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play Numbers, Numbers, 1, 2, 3.

## Number Clap

YOUNG
MATHEMATICIANS
Players 1+ $\quad$ Ages 3+ $\quad 5-10 \mathrm{~min}$

## GOAL

To hear and recognize a number of claps, clap the same number of times, and say how many times you clapped.

## MATERIALS

## VOCABULARY

Same number of times
How many times

Your hands


## QUESTIONS

How many times did we clap?
Can you clap the same number of times?

## HOW TO PLAY

1. Get your hands ready to clap and your ears ready to listen.
2. Say, "Listen carefully. Can you clap the same number of times as me?" Clap twice.
3. Wait for children to clap, then ask, "How many times did you clap?". Wait for children to respond ("Two!").
4. Continue playing using different numbers of claps.

## TIPS FOR PLAYING

- In addition to clapping, you can use all different types of motion. Children can jump, spin, stomp, or whistle the number of times that you clapped.
- To start, focus on numbers one to five. Then, when children are ready for more challenge, try numbers up to 10 .
- To keep the game going, you can have the children take turns leading.


## WHAT CHILDREN ARE LEARNING

- Children are working with a lot of mathematical ideas. They listen to the claps and determine how many claps. They hold that number in their head while they count their own claps up to that number. And finally, they label the claps with a number word, like "two" or "three."


## MATH TOPICS

## Number: Counting and Cardinality

## VIDEO



## Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play Number Clap.

## Make 5! with Fingers

## GOAL

To show 5 using two hands.

## MATERIALS

Hands


## VOCABULARY

## QUESTIONS

In all
How many more
Take away
Remove
How many more fingers do we need to make five?

## HOW TO PLAY

1. Hold your hands behind your back.
2. Say, "Let's work together to hold up five fingers in all. I'm going to hold up some fingers. Now, with your hand, hold up the rest of the fingers to make five in all."
3. Bring one hand forward and hold up two fingers.
4. Ask, "How many fingers am I holding up? How many more fingers do we need to make five?"
5. Wait for children to hold up three fingers.
6. Say, "Yes! I am holding up two fingers, and three more fingers makes 5! 1, 2, 3, 4, 5 . Five fingers."
7. Put your hands behind your back. Continue playing using different combinations of fingers.


## TIPS FOR PLAYING

- Players can make different numbers other than 5. They can make combinations of 3 or 4 , or if children are ready for more of a challenge, they can make numbers up to 10.
- If children are ready for numbers more than 10, you can ask a friend to lend their hands to make numbers up to 15 or 20.
- To practice subtracting numbers, you can ask the child to hold up 5 fingers while you hold up fewer than 5 fingers, and then ask, "How many fingers do you need to take away to get to my number of fingers?"


## WHAT CHILDREN ARE LEARNING

- This game focuses on number composition - knowing that two smaller numbers make up a larger number. This is the foundation for addition and subtraction. In this game, children are adding together the number of fingers being held up on two hands.
- It's important for children to recognize that a given quantity can be represented in different ways - with fingers, numerals, dots in different configurations, and more. Having practice playing with number in many forms helps to strengthen this concept.


## MATH TOPICS

## Number: Counting and Cardinality

## VIDEO



## Watch Game Video

View the QR code in your smartphone's camera app or $Q R$ code reader to watch a video that shows how to play Make 5! with Fingers.

## More, Less, Same with Fingers

## GOAL

To recognize how many fingers are being held up and then show more, less, or the same number of fingers on your hands.

## MATERIALS

Hands


## VOCABULARY

## QUESTIONS

How did you know?
How many more?
How much less?

## HOW TO PLAY

1. Hold your hands behind your back.
2. Bring one hand forward and hold up three fingers. Say "Can you hold up the same number of fingers as me?"
3. Wait for children to show three fingers (in any configuration).
4. Put your hands behind your back again. This time, bring one hand forward and show two fingers. You can have children
show the same number of fingers or, if you'd like to introduce an extra challenge, choose one of the following questions:

Level 1: "Can you hold up more fingers than me?" Give children time to figure out how to show more fingers.

Level 2: "Can you hold up exactly one more finger than me?" Give children time to figure out exactly one more than you.

Level 3: Ask the child to hold up more fingers than you are holding up and then ask, "How many more is that? How do you know?"
5. When children are comfortable talking about "more than", you can ask the same questions, substituting with the term "fewer than"*. This is an early step toward understanding addition and subtraction.
*In English, fewer is typically used for countable objects and less is used for continuous quantities. In these directions, we use both words because some children and families may be more familiar with one or the other. Use the vocabulary that works best for you.

## TIPS FOR PLAYING

- You can switch roles with the children. Have them hold up their fingers and tell you to hold up more, less, or the same number.
- Show quantities of fingers in all different ways. For example, first show 4 with two hands: 3 fingers on one hand and 1 finger on the other. Then show 4 with 2 fingers on one hand and 2 fingers on the other.


## WHAT CHILDREN ARE LEARNING

- Talking about more, less, and the same helps build children's math vocabulary.
- Thinking about one more and one less also helps children learn the order of numbers: 4 is one more than 3 and 2 is one less than 3.


## MATH TOPICS

## Number: Counting and Cardinality

## VIDEO



## Watch Game Video

View the QR code in your smartphone's camera app or $Q R$ code reader to watch a video that shows how to play More, Less, Same with Fingers.

# How Many Are Hiding? with Fingers 

```
Players 1-4 : Ages 4+ ! 5-10 min
```


## GOAL

To name how many fingers are hiding.

## MATERIALS

Hands


## VOCABULARY

## QUESTIONS

How many?
Hiding
Up
Behind

How did you remember there were five in all?
How did you figure out how many were hiding?

## HOW TO PLAY

1. Hold up your hand with five fingers extended. Ask, "How many fingers are here?"
2. Hide one finger. Ask, "How many fingers are hiding?"
3. Once children identify the number of fingers hiding, continue playing by hiding different numbers of fingers. Try hiding all of your fingers and none of your fingers! This makes children laugh and give silly answers.

Note: Have children take on the role of the "hider." They will enjoy hiding their fingers for you!

## TIPS FOR PLAYING

- Try playing this game with your palm facing toward the other player and then with the back of your hand facing toward the other player. Does it make a difference? Is it easier or harder to say how many are hiding when children can't see the fingers that are down?


## WHAT CHILDREN ARE LEARNING

- This game helps children recognize that bigger numbers, like 5, are made up of smaller numbers, like 1 and 4 . This is referred to as number composition and is an important skill for children to learn to help them with addition and subtraction later on.
- Children are practicing saying how many they don't see instead of how many they do see. This is an important skill, but it can be hard. If it seems too challenging, you can have children say how many they do see until they are ready to say how many are hiding.


## MATH TOPICS

## VIDEO



## Watch Game Video

View the QR code in your smartphone's camera app or QR code reader to watch a video that shows how to play How Many Are Hiding with Fingers.

