

Day One

# The 1-10 Card Investigation



## Learning Goals:

- Develop and apply problem-solving strategies through investigations
- Develop and apply reasoning skills to make and test math predictions
- Communicate mathematical thinking orally and visually

## Materials:

- Playing cards (starting with Ace - 10)  
OR
- A homemade set of paper cards numbered 1-10 (see attached page for printable cards)
- Pencil and paper for rough work or communicating thinking

## The Challenge:

- 1) Start with the pile of cards in your hands and demonstrate laying down cards by alternating between placing one onto the table and one back under the pile
- 2) Continue until you have no cards left in the pile
- 3) Take note together that the cards don't end up coming out in order

Now challenge your child to arrange the 10 cards into a pile, so that when played out like this, the cards will appear in order from least to greatest.

See this video for more information: [The 1to10 Card Investigation by Marilyn Burns](#)

Once you have taken some time to make sure your child understands the requirements of the challenge, you can set them loose to problem solve on their own OR you can work collaboratively alongside them!

## Questions and Prompts to Support your Child:

- How did you get started?
- What have you noticed? What have you tried so far? What could we try together?
- Did you feel stuck at any point? What did you do?
- Show me how this works! Explain to me how you figured this out!

## Extensions & Adaptations:

- If having trouble getting started, try starting with a set of cards from 1 to 4 or 1 to 5 first
- Once the 1 to 10 challenge is complete, try repeating it with all cards in a suit (Ace to King) OR try it with moving two cards to the bottom of the pile instead of one

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