



# Skill and Chance in Decision-Making

Thinking Probabilistically



ALLIANCE FOR  
**DECISION  
EDUCATION**

## Grade Level

3rd-5th

## Suggested Timing

30-40 minutes

## Focus Standard

TP.1 - Recognize the difference between the nature of uncertainty and randomness

## Supporting Standard

VAR.1 - Embrace decisions as opportunities

## Resources

Cards with pre-written prompts

## Impact

When students understand the roles that decision-making skills and chance play in decision outcomes, they may think differently about how to approach and reflect on the decisions they make. This lesson helps students think intentionally about what they can control in a decision and what may be left up to chance.

## Objectives

- Students will identify how some decision outcomes are due to factors that are both under their control and outside of their control.

## Optional Teaching Strategies

- Try the opening activity over multiple days, with 1-2 different scenarios each time, to exercise students' thinking around how skill and chance influence outcomes in their lives.
- Post a chart with guiding questions (What can I control? What is left up to chance?) to support one-on-one or small-group conversations with students about decisions they have to make throughout the day.

## Differentiation

- Have students make up their own decision outcomes instead of choosing one from the *Engage* activity.
- Walk through the *Apply* example as a whole-group brainstorm before sending students to work on their own.
- Provide a graphic organizer to structure discussion and work during the *Apply* activity.
- Extend the activity by having students sort the scenarios in order of magnitude from most impacted by chance to least impacted by chance.
- Extend the activity by having students think about how likely each of the chance occurrences are to happen.

## What To Look and Listen For

- Can students identify at least one thing they are in control of when it comes to a decision outcome and one thing that is outside of their control?

## Engage (10 minutes)

Bring students together for a whole-group activity. Ask students to help sort cards into 3 categories: *I can control*, *Left up to chance*, *Both*.

### Suggested Prompts for Cards:

- The weather tomorrow
- How long my homework essay is
- Whether I get called on to answer a question
- If I will trip on the walk to recess
- Whether I score in the basketball game
- Whether I finish the last chapter of my book today
- If I argue with my friend

### Suggested Discussion Prompts for After a Card is Sorted:

- Explain your thinking.
- Do others agree or disagree? Why or why not?

### Suggested Prompt to Reflect on the Sorting Activity:

Sometimes we think the way things turn out is entirely under our control. So, if a decision turns out well, we say, "That was a great decision!" And if a decision turns out badly, we say, "Well, that was a terrible decision." But in decision-making, outcomes are often due to a mix of factors—some that we can control and some that are due to chance—that we don't have control over.

When we become better at untangling what we can control and what things are outside of our control, we can reflect more thoughtfully on why things turned out the way they did—which is a key part of being a skillful decision maker!

## Apply (15–20 minutes)

In partners or small groups, have your students choose one or two of the scenarios from the *Engage* activity. In list or chart form, students brainstorm and record examples in each scenario of factors that they can control and factors that are left up to chance.

Suggested example to share before students head off to work independently/in groups:

Whether I finish the last chapter of my book today	
Factors I can control	Factors left up to chance
<ul style="list-style-type: none"> <li>• Reading instead of watching TV when I get home.</li> <li>• Sitting in a quiet room where I can focus.</li> <li>• Setting an alarm to remind me to start reading at a certain time.</li> </ul>	<ul style="list-style-type: none"> <li>• Book falls out of my backpack on the bus.</li> <li>• Power goes out and I have to stop reading when the sun goes down.</li> <li>• I get a really bad headache and have to go to bed early.</li> </ul>

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## Reflect (5–10 minutes)

Select students to share their reflections on the examples they choose.

### Suggested Discussion Questions:

- Are there any cards from our initial sort that we want to move now that we've thought more about them?
- Which of these scenarios seems the most impacted by chance? Which scenarios seem the least impacted by chance?
- How might knowing about what you can control and what is left up to chance help you as a decision maker?

### Suggested Prompt for Closing the Lesson:

Skillful decision makers pay attention to what is within their control and what is left up to chance when making a decision. How likely is it for things outside of their control to impact a decision? When we do this, it helps us move away from thinking *"Well, that was a bad decision because it didn't turn out well!"* to instead thinking, *"How much of that bad outcome was due to my decision-making skills and how much was just because of chance?"*