

Probability and Justice – A Thought Experiment

Instruction Sheet

Time: 15–20 minutes

Goals

Students will:

- use basic probability to think about justice and equal opportunity,
- reflect on how chance and structural inequality shape life outcomes,
- consider why fair starting conditions matter in society.

Materials

- dice or a simple card set (for example, 10 “luck” cards and 10 “bad luck” cards),
- worksheet with scenarios and reflection questions,
- pens or pencils.

Lesson Flow

1. Warm-up (about 3 minutes)

Begin by connecting the activity to earlier work on inequality, data, or social systems.

Ask:

“How random are people’s life chances really? Are opportunities mostly a matter of luck, or are there deeper patterns behind them?”

Briefly review a few key terms such as **event**, **probability**, and, if relevant, **conditional probability**.

2. Individual Thought Experiment (about 10–12 minutes)

Students imagine living in a society where important opportunities are shaped by chance. Each student chooses one scenario, works through the short calculation, and then reflects on whether the outcome seems fair. Encourage them to think beyond the numbers and ask what a just system should look like.

3. Share and Reflect (about 3–5 minutes)

Invite a few volunteers to present their scenario and conclusion. Then discuss together:

- Which probability ideas helped you most?
- What do the numbers reveal about fairness or unfairness?

- Can there be such a thing as “fair chance” in human rights?
- Should rights depend on luck at all?

Activity Cards

Activity Card 1: Fair Trial

You are accused of theft. There is an **80% chance** that you receive a fair trial and a **20% chance** that you are punished without one.

Your tasks:

1. If this happened in **10 cases**, about how many times would you likely receive a fair trial?
2. How many times might you be punished unfairly?
3. Does this system protect the right to a fair trial? Explain briefly.

Activity Card 2: Access to Clean Water

In your region, each person has a **50% chance** of having access to clean drinking water. A family has **4 members**.

Your tasks:

1. What is the probability that **all 4 family members** have access to clean water?
2. What is the probability that **none** of them have access?
3. Is this a fair way to distribute such an essential resource? Why or why not?

Activity Card 3: Education Chances

In one city, children from low-income families have a **30% chance** of graduating from a good school. Children from wealthy families have a **90% chance**.

Your tasks:

1. Compare the two probabilities.
2. What does this suggest about equal opportunity?
3. How does the “chance of birth” affect success in this case?

Reflection Worksheet

Name: _____

Scenario chosen: _____

1. My calculation

Write your probability result in one or two sentences:

2. My judgment

Do you think this situation is fair?

- Yes
- No
- Partly

Why?

3. Human rights connection

Which right or principle is involved here?

4. Final thought

Complete the sentence:

“A just society should make sure that _____.”