Coin Flip: Predict

Name _____ Date _____

Probability · Grades 3–5

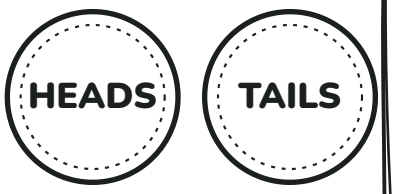
You need a coin. Make your prediction first, then do all 30 flips.

1 Predict + Record | 2 Tally | 3 Graph | 4 Is It Fair?

A Predict

If you flip a coin 30 times, how many of each do you think you will get?

Heads: _____ Tails: _____



Why do you think so?

_____

B Record · write H or T for each flip

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

Coin Flip: Tally It

Name _____ Date _____

Probability · Grades 3–5

Use your flips from sheet 1. Make one tally mark for each flip, then count.

1 Predict + Record | **2 Tally** | 3 Graph | 4 Is It Fair?

A Tally your results

Outcome	Tally marks	Total	Fraction
Heads		_____	___ / 30
Tails		_____	___ / 30

B Check and think

Add up your totals: _____ It should be 30. If not, count your tallies again.

1. Which came up more, heads or tails?

2. Half of 30 is 15. How close were your heads to 15?

3. What was your longest streak of the same side in a row?

Coin Flip: Graph It

Name _____ Date _____

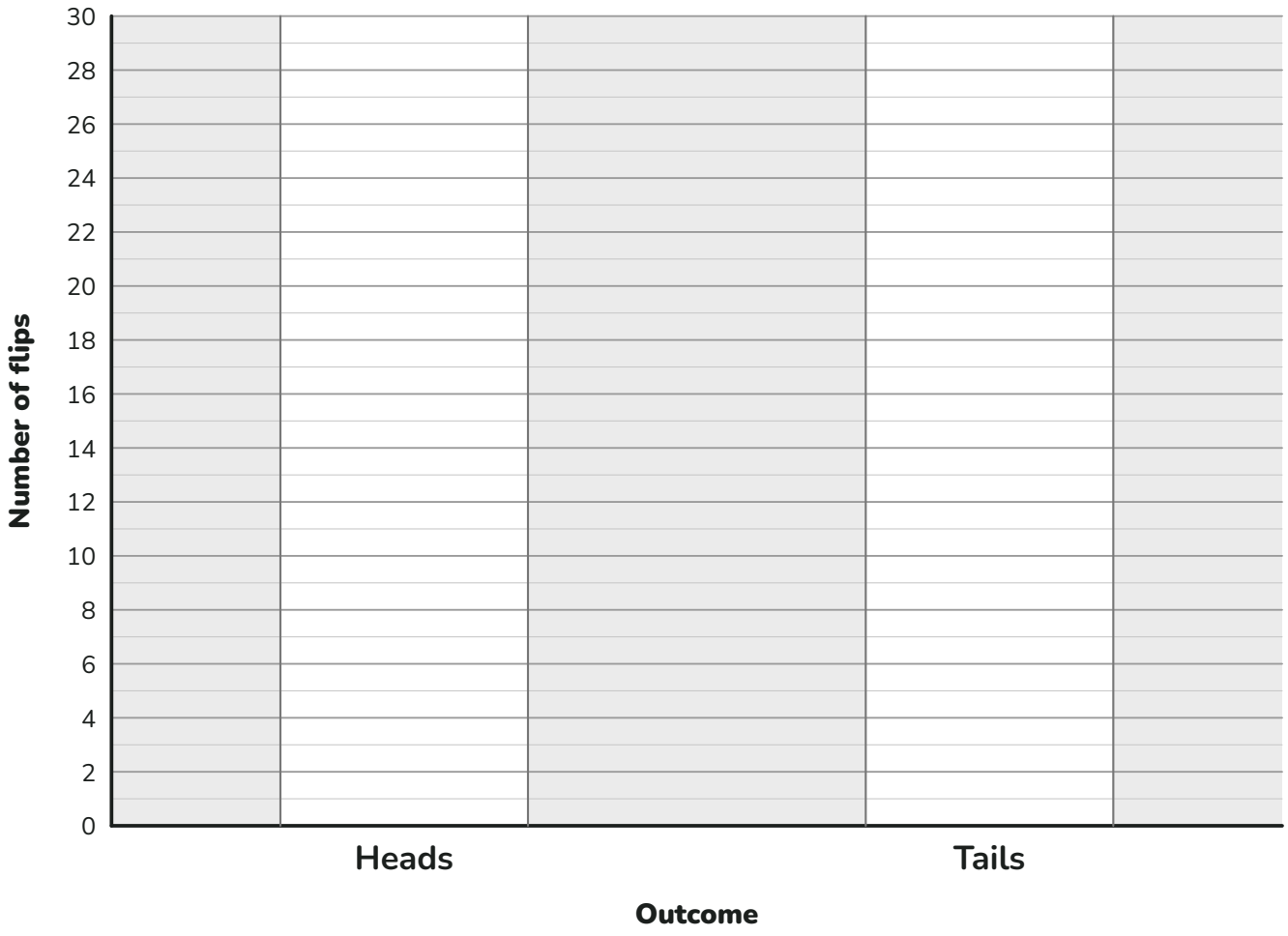
Probability · Grades 3–5

Color one space up for each flip in your tally chart. Count up the side to check.

1 Predict + Record | 2 Tally | **3 Graph** | 4 Is It Fair?

A Make a bar graph

Title: _____



B Read your graph

1. How many more of one side than the other did you get?

_____

2. If you flipped 30 more times, would your graph look the same? Why?

_____

Coin Flip: Is It Fair?

Name _____ Date _____

Probability · Grades 3–5

Work out what should happen, then compare it with what really happened.

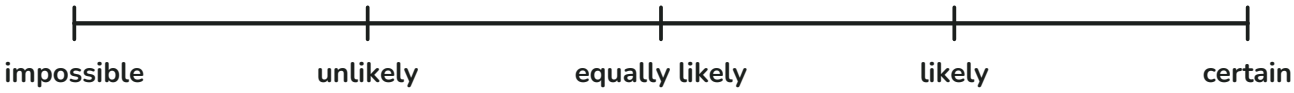
1 Predict + Record | 2 Tally | 3 Graph | **4 Is It Fair?**

A What is the chance?

A coin has _____ sides. The chance of heads is _____ out of _____ .

Write each letter above the line where its chance belongs:

a heads **b** heads or tails **c** the coin shows a 7



B What should happen?

In 30 flips you would expect about _____ heads. You got _____ heads.

How far off were you? _____ Do coins land exactly half and half every time?

_____

C Is it fair?

Maya and Leo flip one coin. Maya wins on heads. Leo wins on tails.

Is the game fair? **yes** **no** Why? _____

Challenge: now they flip two coins. Maya wins if both match. Leo wins if they are different.

Write every way two coins can land: _____ _____ _____ _____

Maya wins_____ ways out of 4. Leo wins _____ ways out of 4. Fair? **yes** **no**

Explain: _____

Try it! Flip two coins 20 times. Matching: _____ Different: _____

Coin Flip: Is It Fair? (Key)

Probability · Grades 3–5

Sheets 1 to 3 are the child's own results (the totals should add to 30).

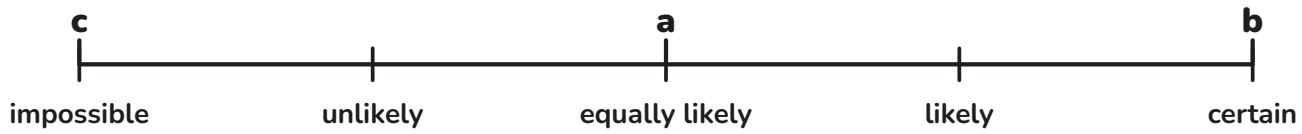
1 Predict + Record | 2 Tally | 3 Graph | **4 Is It Fair?**

A What is the chance?

A coin has **2** sides. The chance of heads is **1** out of **2**.

Write each letter above the line where its chance belongs:

a heads **b** heads or tails **c** the coin shows a 7



B What should happen?

In 30 flips you would expect about **15** heads. You got _____ heads.

How far off were you? _____ Do coins land exactly half and half every time?

Not every time: chance is about what happens over many flips.

C Is it fair?

Maya and Leo flip one coin. Maya wins on heads. Leo wins on tails.

Is the game fair? (**yes**) **no** Why? **Each has 1 out of 2 chances.**

Challenge: now they flip two coins. Maya wins if both match. Leo wins if they are different.

Write every way two coins can land: **HH** **HT** **TH** **TT**

Maya wins **2** ways out of 4. Leo wins **2** ways out of 4. Fair? (**yes**) **no**

Explain: **Fair: matching is HH or TT, different is HT or TH, 2 ways each.**

Try it! Flip two coins 20 times. Matching: _____ Different: _____