

Mini-golf: can a wider gate help?

Build a small course, try it, then widen the gate. Use the results to decide whether that change helped the ball reach its target.

Allow about 60 minutes, or split the build and test across two sessions. Proposed activity; timing has not been classroom-tested. No curriculum alignment is claimed.

What you need

For each group: removable tape, a ruler or tape measure, one light soft ball, two low soft blocks or folded cardboard gateposts, a light blunt putting tool, and the learner sheet. A gentle hand push along the floor also works. Each tester keeps their chosen movement and assistance the same in both rounds.

Choose a clear, level surface suitable for tape. Keep waiting learners clear of the lane and putting arm. Use low, gentle strokes and one moving ball at a time. Stop play before retrieving a ball. An adult checks the materials and handles any cutting.

Set up the course · about 10 minutes

1. Mark a lane **120 cm long and 60 cm wide**. Keep walking space around it.
2. Put the ball's start mark on the centre line, **10 cm from the near end**.
3. Mark the gate's centre **60 cm from the near end**. Set a post either side with a **15 cm clear gap**. Mark both positions so you can reset a knock.
4. Mark a **30 cm × 30 cm clear target** on the centre line. Its near edge is **85 cm from the lane's near end**; its far edge is at 115 cm. Measure inside the tape. Leave clear space beyond the lane.
5. Check the ball fits through both planned gaps. Try the course before the group starts; adjust an impractical layout, then record the agreed dimensions. Keep that layout for both rounds.

Run the test · about 30 minutes

A success: one stroke or push sends the ball through the gate and it stops wholly inside the target, without touching its tape. Going around the posts, leaving the lane or needing another stroke counts as a miss.

Choose two testers and give each two practice attempts. Each then takes five recorded attempts per round, in the same order. Other learners measure, record and check the lane; swap roles after the comparison.

- **Round A:** use the 15 cm gate. Reset the ball on the start mark each time. Let it stop, record ✓ or ×, then retrieve it. Keep the posts still throughout the round.
- **Change:** widen the clear gap to **25 cm**, moving each post 5 cm outwards. Keep its centre and distance along the lane fixed. Change nothing else.
- **Round B:** repeat the same ten attempts with the same ball, tool, testers, order, surface and target. If another person or ball interrupts an attempt, reset and replay it. An ordinary miss stays in the results.

Talk it through · about 10 minutes

Count each round's successes out of ten. Ask: **What changed in the results? What did you see that might explain it?** A wider gate may help the ball pass, but players still need to judge direction and strength. Practice and tiredness can affect the second round. Ten attempts give this group something to discuss; they do not prove the gate will help everyone.

If the result is unchanged or worse, record that. Choose a next test from what happened, or sketch a proposed change for next time. For more challenge, express each result as a fraction or percentage and show both on a simple bar chart.

Look for: a labelled plan, measurements with units, a complete table and an explanation that uses what the group actually observed.

Can a wider gate help?

Names: _____ Date: _____

Your job: try one course with two gate widths. Keep the rest of the course the same.

1. Plan it

Lane length: _____ cm · lane width: _____ cm · target: _____ cm × _____ cm

Gate A: _____ cm · gate B: _____ cm · ball start to gate: _____ cm

We think widening the gate will _____

because _____

Sketch the course. Label the start, gate, target and expected ball path.

2. Try it

✓ = **through the gate and stopped wholly inside the target, without touching its tape, after one stroke or push. Everything else is ✗.** Let the ball stop before collecting it. Reset it on the same start mark every time.

Tester 1: _____ Tester 2: _____

Attempt	Tester	A: 15 cm gap	B: 25 cm gap
1	1		
2	1		
3	1		
4	1		
5	1		
6	2		
7	2		
8	2		
9	2		
10	2		
Successes		____ / 10	____ / 10

Change only the gate width between A and B. Keep its centre and position fixed. If another person or ball interrupts an attempt, reset and replay it. Keep ordinary misses.

3. What did you find?

In round A we had _____ successes. In round B we had _____.

We noticed _____

Our results suggest _____

Something else that could have affected the result: _____

Next we would try _____