



DESIGN CHALLENGE

What You'll Need

(Just ideas, not mandatory):

- Putter (or build your own using a long tube and attaching it to a block of foam or cardboard)
- Ball (golf ball, ping pong ball, small rubber ball)
- Cup for the hole
- Item(s) for the boundary (cardboard, string, floor furniture, etc.)
- Paper/construction paper
- Boxes (shoebox, cereal box, etc.)
- Sand/rocks
- Canned food
- LEGOS
- Pipe cleaners
- Tape/glue
- Scissors
- Crayons, markers or colored pencils

Quote



Explain the quote listed in your own words, and then describe how it applies to the design challenge.

“Design is not just what it looks like and feels like. Design is how it works.”

– Steve Jobs

Miniature Golf Course Hole

Can you get a hole in one? Design a miniature golf hole with the suggested materials listed and test it out. The miniature golf hole must have a starting location (tee box), fairway and the hole (a cup) all within a boundary. The design must include one obstacle (a hill, bridge, trap, tunnel, etc.) that blocks a direct path from the starting location to the hole and have at least one turn.



Things to Consider Before You Begin:

What steps will you take to begin to build your hole? Will you write your ideas, make a drawing/sketch or just start building?

How long will your hole be?

Will your obstacles have a theme (windmills, bridges, dinosaurs, rollercoaster, etc.)?

How many obstacles will you have and where will you place them?



Reflection Questions:

Were you able to get the ball in the hole with one putt? If not, why? How many strokes did it take you to get the ball in the hole (cup)?

How did the ball react when it rolled on or bounced off the obstacles? Did the ball bounce the same way off of the materials you used?

Keeping your design, what could you add/remove to make your hole easier? More complex?



Redesign Challenge:

Redesign your hole to include two obstacles and two turns. Can you get it in with one putt? Two putts?

If you find this challenge fun and want to continue learning about what you enjoy doing, check out our Find Your Passion activity on TGR EDU: Explore: tgeduexplore.org/curriculum