

Hushed Heist.

Design and build stealthy footwear to use in a noisy obstacle course.

The inspiration for this activity!



MOXI Exhibit Connection

Quiet Quest

Time

30+ min

Age

6+

Category

Sound, Design, Game

Educational Value

Based on Next Generation Science Standards (NGSS)

Grade	Standard
K-2	K-2-ETS1-2
3-5	3-5-ETS1-1,2,3
6+	MS-ETS1-2

*May include opportunities to employ the following Science and Engineering Practices:

- Asking questions
- Defining problems
- Designing solutions
- Obtaining, evaluating, and communicating information

↖ For Educators

Design Challenge

Build shoes that allow you to sneak around without making a sound. Then create a noisy obstacle course with three challenges and something to snatch at the end.

Materials

Below are some ideas for supplies, but be creative! What else could you use for each of the categories below? Your home is a creative tool chest waiting to be discovered!

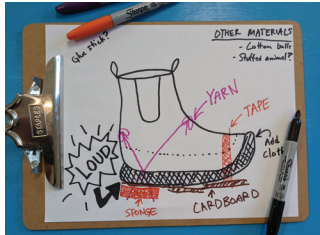
Shoe Base	Sound Dampening	Obstacles	Equipment
<ul style="list-style-type: none"> • Socks • Hiking boots • Flip flops • Slippers 	<ul style="list-style-type: none"> • Toilet paper • Sponges • Pillows • Stuffed animals • Bunting/stuffing • Blankets 	<ul style="list-style-type: none"> • Bubble wrap • Crinkled paper • Marbles/beads • Foil • Paper bags • Silverware • Plastic cups • Newspaper • Plastic bottles 	<ul style="list-style-type: none"> • String • Chairs • Pole

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Instructions



Draw pictures of how you think your design will make the shoe quieter.



1. Gather materials. Find a pair of socks or shoes to use as the base sneaky footwear (the bigger and noisier the footwear the harder the challenge). Gather cushioning materials you could use to make your footsteps quieter. What types of materials do you think will dampen sound the best?
2. Build your sneaky footwear! How will you attach the cushioning materials to the sock or shoe? How can you make them easily removable? You could use rubber bands, string, shoelaces, tape, or something else creative.
3. Gather things to make "sound obstacles" for your obstacle course. What might make noise when walked on or knocked over? Try changing the texture of the ground with bubble wrap or crinkled paper.
4. Test your shoes! See how quietly you can make it through the obstacle course. Use a phone to measure how quiet you are or have someone else be the judge. Take on a competitor! Time yourself! How fast and quiet can you be?



Put a special item to capture at the end of your obstacle course.



Can you make it to the item, take it, and escape without being heard?

Activity Extensions

Why stop here?
Keep the MOXI fun going!

innovate

Make your own shoe from scratch. What materials from around the house would make a good base, and how can you attach them to something that will quiet your footsteps?

imagine

Make a commercial for your shoe! How does your design solve a potential problem? How could you get a shoe shopper's attention?

investigate

Try on all your shoes and rank them from quietest to loudest. What similarities do you notice in the shoes that tend to be quieter? Use a decibel meter app for accuracy!



Ask a Designer

What are the most important aspects of design?

"Sketching an idea that you had in your head is one thing, but actually making it, and ensuring it serves a purpose and is unique is another. These are both important considerations when designing any product for Deckers Brands. At Deckers, we test every aspect of the shoe from fit, to durability, to materials (or even how noisy they are!)"

—Mitch Harvey, 3D Innovation Manager at Deckers Brands

Make + Share!

Be sure to share your creations and tag us @moxisb and use #moximade and #moxiathome so we can join in on the fun, share your projects, and inspire others!

