Paper Roller-coaster Projectette

(Projectette = mini project)

Your Task: Apply your understanding of functions to design and build a paper roller-coaster for a marble. Take the perspective of a marble mommy or daddy (with your imagination!) and reflect on the risks and rewards in your roller-coaster.

Deliverables:

- ❏ Project plan with equations, graphs, and xy tables for each function
  - ❏ CC2 / CC3 - 3 linear functions with different slopes
  - ❏ Int1 - 1 linear function with a negative slope, 1 linear function with a positive slope, 1 exponential function
  - ❏ Int2 - 1 linear, 1 exponential, and 1 quadratic function
- ❏ Paper Roller-coaster
- ❏ Reflection on risks and rewards

Step 1: Develop your plan for your three functions → here's the planning template

Step 2: Check with Hart or Michelle D.

Step 3: Watch the paper roller coaster tutorial and read these directions from Scientific American.

Step 4: Grid out your cardboard in a 1 inch by 1 inch.

Step 5: Use cardstock to build your roller coaster.

Step 6: Reflect on the risks (when could the little marble fall?!) and rewards (when would the little marble have the most fun!)