

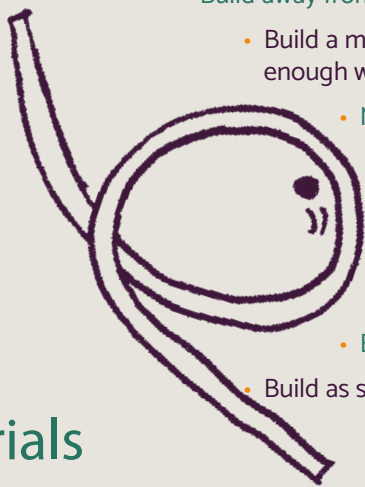
Challenges

The following challenges can be used in the marble run activities. Some are good to start with - these are marked purple - while others are good to introduce during the activity - these are green. However, you can mix and match as you like. You can give the same challenge to all children or choose different challenges that fit the individual child's building process.

Mechanics

Challenges that involve the movement of the marble

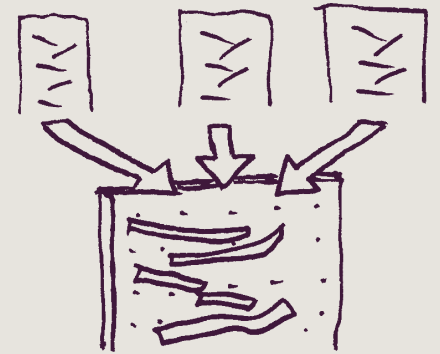
- Build around a corner
- Experiment with a stop watch
- Make a track that splits in two or more ways
 - Make the marble jump off the track on back on it (or just jump in some way)
 - Build away from the board and back
 - Build a mechanism that gathers the marbles and releases them when there is enough weight
 - Make the marble move upwards
 - Use the domino effect in the track
 - Build a catapult
 - Build a track where the speed changes
 - Use a small marble to get a bigger one running
 - Build an elevator
 - Build as slow a track as possible
- Build a marble run that works two times in a row
- Make a loop
- Build a trampoline



Materials

Challenges that involve the materials in the track

- Use multiple marbles at once
- Use a table surface to build the track on
- Build a marble run that makes different sounds
- Use objects from the room or yourself in the track
 - Build a track without wooden rails
 - Build a track as wide as possible
 - Use your own belongings in the track
 - Use multiple pegboards
 - Use both (or several) sides of the board
 - Use all materials
 - Use paper
 - Build without tape
 - Use wheels in the track
 - Use cord in the track
 - Use a chair or stool in the track
 - Build a track as narrow as possible
 - Use the floor as part of the marble run
- Make the marble end up in a cup (or another object)



Social

Challenges that involve the social aspect in the activity

- Make a marble run with a theme
- Build a marble run without talking
- Build a track with a storyline
- Build the marble run with different roles
- Build two marble runs into one
- Build a track from dice rolls
- Use only one arm as you build
- Give the track a cool name
- Use ideas or items from the previous class in the track
- Build an adventure or fairytale
- Build while taking turns