



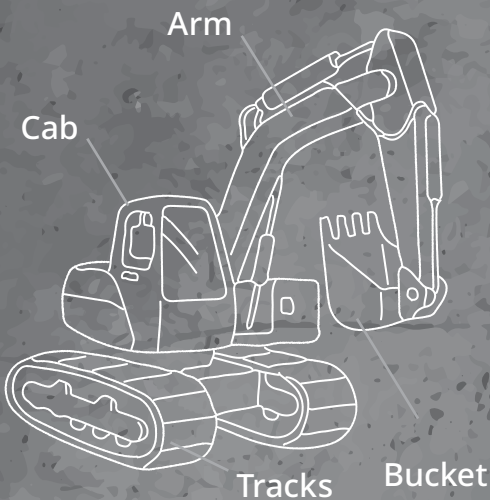
1

Station Excavation

Excavation is an important part of the Broadway Subway Project.

Excavators, or diggers, are needed to move soil, rock, and other material to create space for the new stations.

Meet the excavator!

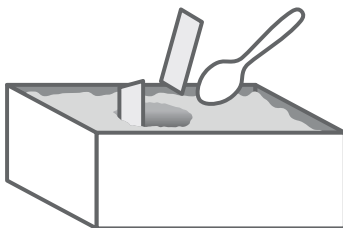


Let's get ready!

We can use sand to explore the science behind digging big spaces!

For this experiment, you will need:

- a box of sand or a sandbox
- a cup, bucket, shovel or spoon
- a cardboard cylinder (a quarter of a toilet paper roll)
- cardboard pieces



Let's excavate!

Use your spoon, shovel, cup, or bucket to make a deep hole. Observe the movement of the sand. Does the sand keep moving back into the hole?

Can you stop the sand by using the tools you have?

What do you think will happen?

- How will the cardboard structure keep the space empty?
- What will happen if you don't use anything?



Did you know?

One excavator can do the work of **20 workers with shovels**, depending on the size of the machine!

What is happening?

While you are busy working, think about what is happening.

- What is different if the sand is wet or dry?
- Can you think of something other than cardboard that would make a strong structure? Get creative!

