

# Stem Project

## Building an Eco Marble run

The best thing about making your own marble run is that there are no rules at all. The aim of the game is to take your marble on an adventure through an imaginative assault course, using just gravity as 'fuel'.



### Materials you will need:

- cardboard tubes (eg toilet rolls, or kitchen paper rolls – or even sturdier tubes from the inside of cling film rolls)
- newspaper (to roll into tubes)
- small cardboard boxes from eg cereal, tissues, toothpaste – or milk/juice cartons
- plastic drinks bottles
- egg cartons (to catch marbles at the end).
- Sellotape or masking tape
- Double-sided tape
- Sticky tac
- Marbles
- Scissors



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### Tips on making your marble run

- It's easiest to build your marble run inside a big cardboard box with no lid. You can use tape or tac to hold different parts in place.
- Cut cardboard tubes in half lengthways and tape them together end to end, forming a long chute.
- You can use rolled up newspaper to form covered tunnels as well.
- Cutting the top of a plastic drinks bottle off and turning it up-side-down makes a great funnel.
- Other whole cardboard tubes or rolled up newspaper can serve as different height towers to rest your chutes on. Draw around the end of your chute see where to cut a semi-circle out of the tower, and slot your chute in. Then secure it with tape.
- The top edge of your cardboard box is a good place to attach your first chute, giving your marble the helping hand of gravity. You could even make a little hole in the side of the box to feed your marbles into, like the side of a table football game.
- Cut your egg carton into little cup shapes, which you can place at the end of your chutes for the marbles to drop into. Again, use tape or tac to keep them steady in your box.
- When you're happy with your run, test it with a marble! Check the marble doesn't get stuck anywhere, and smooth out any problematic areas with extra tape if necessary.
- If you've got time, you could decorate your marble run, or include Start and Finish signs.

*Most of all, have fun building and if you don't have any marbles use round items you may have in your house. I like using Maltesers myself*

