Marble Run

Sections

Joey Scouts
Cub Scouts
Scouts
Venturer Scouts
Rover Scouts

Scouts VICTORIA

Last updated: May 13, 2023, 11:01 p.m.

Challenge Areas

COMMUNITY
CREATIVE
OUTDOOR
PERSONAL GROWTH

Scout Method Elements

COMMUNITY INVOLVEMENT
LEARNING BY DOING
NATURE AND THE OUTDOORS
PROMISE AND LAW
PERSONAL PROGRESSION
PATROL SYSTEM
SYMBOLIC FRAMEWORK
YOUTH LEADING, ADULTS SUPPORTING

SPICES Growth Areas

CHARACTER
EMOTIONAL
INTELLECTUAL
PHYSICAL
SOCIAL
SPIRITUAL

The Adventure

Use your construction skills to make a marble run with or against your patrol and race to see who can make their marble take the longest to get down the run.

Plan

1. Investigate gravity and how it impacts different objects depending on their shape.
2. Investigate different types of marble runs. What type of different features do they often contain and how does this effect the speed that the marble progresses down the path.
3. Read the safety information and discuss with your leaders or another appropriate adult what safety equipment, precautions, and supervision may be required. Ensure that you have these safety measures in place before starting the ‘Do’ section.
4. Communicate with your patrol members and leaders to see what equipment that you need to bring. You can be as creative as you like in designing your run so be creative with your materials. Make sure someone provides a marble and a stopwatch though!

Do

1. Select a starting and end location for your marble run. Remember that the marble will use gravity to roll downhill so you want your starting location to be higher than the end location. The top of a table makes a great starting location.
2. Use recycled materials such as clean, empty bottles, cardboard, and paper, and other household object to build your marble run. Make sure to consider how the different materials and textures might impact the run.
3. Time how long it takes to get your marble from the start of the run to the end of the run.
4. Modify your run to see if you can make your marble take longer to get from the start to the finish.
5. Compare your marble run time with your patrol to see who can make the ultimate marble run.
6. If you have access to a commercial marble run set, have a go at building a run from this to compare to.

Review

1. Did your marble run work as expected? Why or why not?
2. What did you enjoy the most from this experiment? What did you learn?
3. If you were to do this activity again, what would you do the same? What would you do differently?
4. How did your marble run compare to a commercially built marble run?

Safety

• Marbles can be a choking hazard but may also be slippery and painful if stood on.
• Cuts risk: This challenge card may involve the use of scissors, paper, and cardboard. Be careful to ensure that you do not accidentally cut yourself and be mindful of paper cuts.

Variations

• Try other challenges with your marble runs. You could build a multi-laned marble run or send multiple marbles down at once to see which marble is fastest or slowest.