



Outdoor Magic Number Square

The Task

- Design a number square within which all rows and columns add up to a specific number. For instance, a 3x3 grid could use the numbers 1-9, use each number only once. In this scenario the magic number each line adds up to is 15.

How?

- Draw a square with 3 columns and 3 rows inside it.
- Pick a box and write no. 1 in it.
- Move up one then right one, no. 2 goes here and so on. Should you be on the top row then the next square you move up will now be the empty square on the bottom row. Then move right one. Should you find yourself on the furthest right column then you will have to use the square that is empty on the furthest left column.
- If successful, all rows and columns will add up to 15.
- You can increase the number of columns and rows thus making it harder, you will naturally have a different magic number if you do so.



Considerations

Discuss;

- How to make the number square more challenging. Is there a limit to the number of rows and columns you can create?

What will you need?

Suitable ground and natural items.

We used some charcoal from a forest school fire pit and a flag stone left lying about.

Paper and pencils to help with the sums.





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Organisation & Layout

- If possible, select a spacious area to allow the pupils their own work-space.
- Use the short film to help demonstrate before heading outside.

Learning Objectives

- Target Curriculum level 1,2
- Nature
- Problem solving

Safety Information

- Consider sitting positions or using kneeling mats to stay dry and / or comfy.
- Keep everyone in sight at all times.
- You may wish to create further rules depending on your pupils needs.

Review & Assessment

- Correct answers.
- How many different squares did you do?
- Did you change the order you put the first number in?
- Did the pupils use additional resources, or did they manage to do the sums in their heads?



Additional Links & Support

[Blairvadach Magic Number Square - YouTube](#)