

HIAS HOME LEARNING RESOURCE

Mathematics Through Games

A rationale and examples of games

HIAS Maths Team
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Mathematics through Games

The benefits of promoting games:

- Many everyday games that people will already have at home provide a context for practising mathematical skills.
- Games tend to be engaging for children and are therefore likely to be accessed willingly by the children, and also repeatedly returned to.
- Games can be invented using very little – a number track drawn on a piece of paper (or larger outside with chalk, perhaps) can become a game – the rules can be decided upon and changed to maintain interest. Hand-drawn number tracks can be personalised by the children, using any theme of their choice.
- Games really help children to see mathematical skills as something useful and provide a positive experience.
- There are often fewer language barriers, so for families with EAL, they can often join in with little or no need to follow written instructions – the language of maths games is often universal, and they can be played intuitively.
- One game can be varied and changed in many ways.
- All family members can be included, regardless of age.

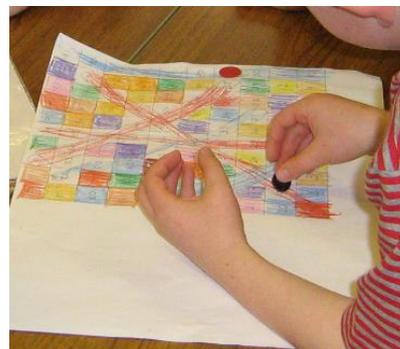
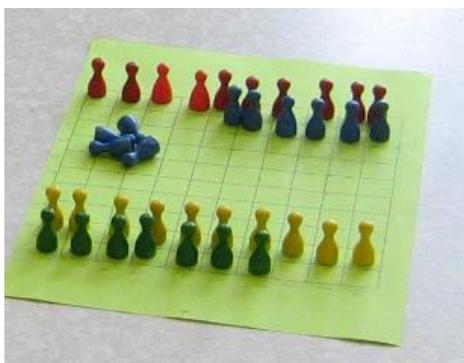
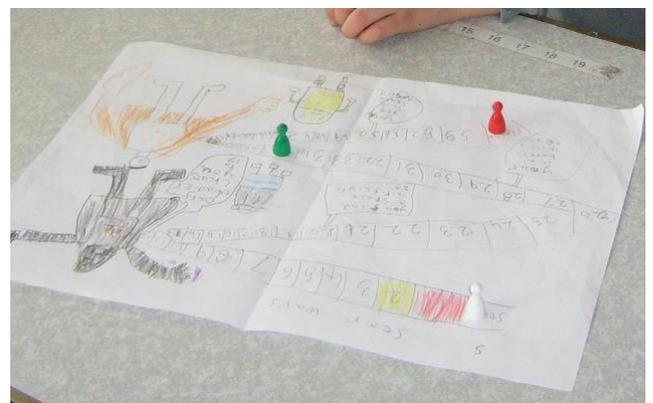
Consider sending pupils ideas for games that they can play – using ideas, for instance, from Nrich. Make sure these are accessible to all. Check if parents have access to things like playing cards, dice, dominoes and other board games, although these are not necessary for many games. There are several on-line dice that can be accessed, following usual internet safety guidance.

Remember that any computers in the home may be in high demand from parents working from home, and also several children wanting their share of computer access, so the more you can suggest ways that online games can be played on paper or in other ways, the better.

Games that parents may already have at home:	
Snakes and Ladders Draughts Chess Ludo Uno Pop to the Shops Yahtzee Dominoes	Backgammon Top Trumps Rush hour Pass the Pigs Guess Who Connect Four Dice games Playing Card games
The above list includes just a few – encourage parents and children to explore their toy cupboards etc to see what they have at home already. Most, if not all, will almost certainly involve practising mathematical skills, as well as problem solving, strategic thinking, collaboration and often resilience.	

Further suggestions

- Ask pupils to draw a simple number track or design a game. The numbers involved can be determined according to their year group learning. Below are some examples of children playing with games they have made:



- Dotty 6 from Nrich - <https://nrich.maths.org/7337> This can be played online, or the “playing board: can be printed – or drawn. Variations can be set – based on different number bonds.
- This section on Nrich is dedicated to games <https://nrich.maths.org/14095> Find appropriate games for the children you are offering home learning to, and suggest ways that these can be made accessible at home to all pupils.

(Remember not all children will be able to access a computer, and all will probably be sharing computers with other family members.

- On the HIAS maths moodle home learning site, there are suggestions for games in the “Paired Games” section:

<https://maths.hias.hants.gov.uk/course/view.php?id=279>



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