

Geopark at home

Activity 10 – mineral battles

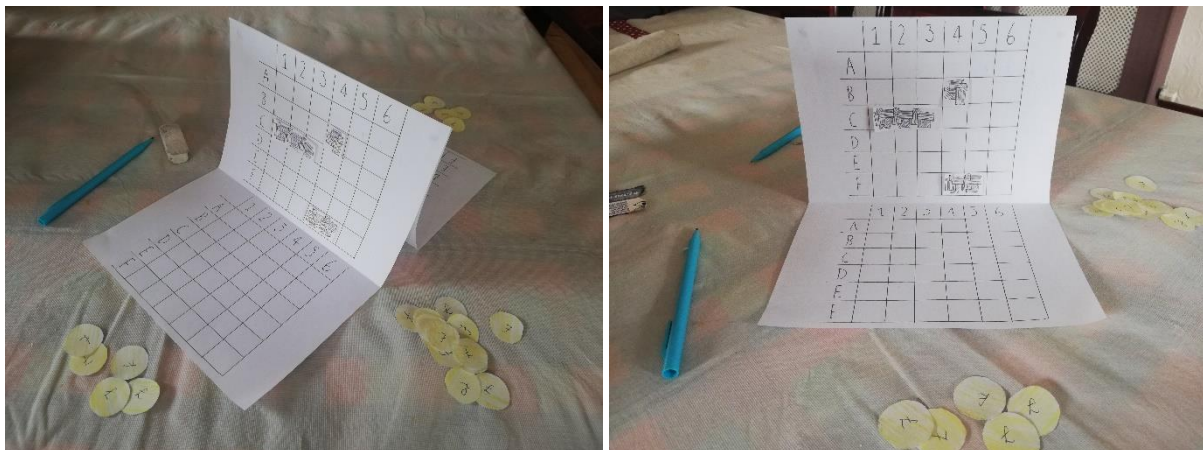
Based on the classic game 'Battleships', go searching for minerals and see how successful you are as a miner.

You will need:

- A4 paper
- Scissors
- Pencils
- Printer (optional)
- Blue tack
- Someone to battle with

What to do:

Cut out the coins and the minerals on the last page (or you could use real coins or counters for these). Fold both of the sheets with the two grids on in half and place them back to back, so you have one grid upright and one grid resting on the table. Sit across from your opponent and make sure they can't peek at your grids and you can't peek at theirs.



Strategically stick your minerals on the vertical grid with blue tack while your opponent does the same. Your challenge is to guess where your opponent has placed the minerals by choosing one square at a time (e.g. C1). They will tell you whether that square has a mineral in it on their grid.

However, you are a miner and every time you choose an area of the grid to dig, it costs you time and money. You start with 10 coins each and leave the rest in a separate pile. Every time you pick a grid square you must put a coin in the pile of excess coins. If you are successful and find minerals you get 2 coins back – a profit of one coin. However, if you choose an area with no minerals you don't get any coins back.

When you run out of money you can't mine anymore, and the game is over. If you successfully find all the minerals, the player with the most money at the end wins.

What's going on?

For hundreds of years the North Pennine landscape has been mined, with workers searching for veins that were full of valuable minerals. One of the most common minerals mined throughout the North Pennines is called galena: a lead ore.

Miners had to understand the geology of the land to figure out where mineral veins had most likely formed. The miners had to spend money to make money. They needed to pay for their tools, dynamite to break up the rock, the mine ponies that carried material out of the mine, the blacksmith that kept their tools sharp and the boys on the washing floor who separated the lead ore from the host rock. Miners were only paid for the amount of ore produced, often making little or no profit.



Take it further:

- Start again, this time with less or more money. Does this make the battle easier or harder?
- What if you start with a different amount of money to your opponent? Does this affect who wins?
- Cut your largest mineral into three and your medium mineral into two. Place them anywhere you like on your grid. Does this affect the difficulty of the game?
- Design your own game that links to your local history or landscape.

Share your pictures or comments on Facebook or Twitter, and let us know if you enjoyed this Geopark at home activity.

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