## 3D Shape Challenge

## Suggested age range $8-11$ (Y4 to Y 6 )

Number of players $\$ 2-4$
How to prepare - Print off one set of challenge cards per person the game playing and cut them out (based on top trumps).
 to play the game

Prepare children for the game by revising the names of the different 3D shapes. Ensure that children know the three main properties that we use to distinguish 3D shapes - the face is a flat plane on the shape, a vertex (or two or more vertices) is the corner and the edge is where two faces meet.

Shuffle the cards and deal them out equally. Each player holds the cards so they can only see the top card. The first player decides on a criteria (for example, 'Faces') and reads this out to the other players. They then ask the players, one a a time, what number they have within that criteria. When another player reads this from their top card, the first player then says theirs. If it is higher than all of the other players' numbers, they take the top card from each player. They then have another turn. If another player has a higher number for this criteria, they win the round and take everyone's cards and it becomes their turn. If two players have the same number, their top cards are placed in the middle; the original player picks a criteria for their next card and challenges that player again. The winner takes all the cards and has another turn. The object is to get all of the cards.

## How does this game support learning?

Identifying different 3D shapes begins in Year 2, but some of the more complex 3D shapes are introduced throughout Key Stage 2. Using the correct vocabulary for 3D shapes is an important skill and knowing and remembering some of these properties will really help children to understand their shapes.

## Bone Yard Bill

## Suggested age range $7-8(Y 3)$

Number of players $刃 2-4$

How to prepare the game

- Print off the Bone Yard Bill boards (beginner/ intermediate/advanced), counters and spinner.
- Cut out the counters and spinner. Create an arm for the spinner using a paperclip. Thread a brass fastener through both the paperclip and then the spinner, making sure the paperclip can spin freely.

How to play the game

Each player selects their own skeleton counter and places it on the starting bone. The tallest player starts the game. Players take it in turns to spin the spinner and move their counter by that number of bones. They must also follow the instructions on the spinner: 'Miss a turn', 'Make a number', etc. If a player spins 'Make a number' they must read out a number, for example 123, and one of the other players can ask them a question about that number, for example, "How many tens are in that number?".
If they get the answer correct, they can move on by one bone. If they get the answer wrong, they must stay where they are.

The winner is the first player to reach the finish bone.


Place value is all about understanding what each digit in a number represents. Without a good understanding of place value children find it very difficult to read, order, sort or use numbers. Many of the strategies we teach children for addition, subtraction, multiplication and division rely heavily on a good understanding of the value of the digits in numbers.
Talk to your child about what each digit represents and how we can check this depending upon where the digit 'sits' in the number. Remind them of the column headings we can put above numbers - Th (Thousands) H (Hundreds) T (Tens) and U (Units).

## Baneyara mill


Counters


Spinner

Bene Yare Bill Boarde Beginar


## Bene Yart Bill Boarti intemmediate



## Bene fard Bill hoarti advancea



## Capacity Matching Pairs

Suggested age range $8-8(Y 2$ and $Y 3)$

Number of players 2
How ko prepare - Print off the Capacity Matching Pairs cards and the game cut them out.

## How ko play the game

Remind your child that 1000 millilitres is the same amount as 1 litre. Shuffle the cards and place them face down on the table. Players take it in turns to turn over a large card and a small card. They must read the amount on the measuring cylinder and the amount written on the card. If they match, they can keep them and have another turn. If they don't match, play goes to the other player. The winner is the player with the most cards at the end of the game.

How does this game support learning?

This game helps children revise reading simple scales on measuring cylinders. They must learn the measurement rule that 1000 ml is the same amount as 1 litre.





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## Cowboy Cards

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Suggested age range 6-11 (Y1 to Y6)
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Number of players 2

How bo
prepare the
game

- Print off and cut out the Cowboy number cards.
- Provide each child with some paper and pencils to record their scores on.
- Provide children with a calculator to check their answers.


## How

 to play the gameBefore starting the game, sort the cards according to the ability/age of the children playing. This game is designed to allow children to revise their addition and subtraction skills. This can be done either mentally or on paper, again depending upon the age/ability of the children. Mix some of the Misfire and Speedy shot cards in with the Cowboy number cards.

Shuffle the cards and give each child an equal number. Children should arrange their cards as a pile, face down. They both turn over a card simultaneously and it is a race to see who can add/ subtract the numbers the fastest. The first person to reach a correct answer wins a point. If a Misfire card is drawn, the point automatically goes to the other player. If a Speedy shot card is drawn, that player automatically wins the point. If a Misfire and Speedy shot card are both drawn at the same time, they cancel each other out and no player wins a point.

## How does

 this game support learning?Being able to add and subtract numbers in our heads and on paper are vital maths (and life) skills. Addition and subtraction are two of the main number operations that children learn, and this game will help them practise. Encourage your child to use the methods they find most useful and that they are being taught in school (column addition, the number line method, etc). Remind them of important rules such as putting the largest number first when adding two numbers together to make it easier.







