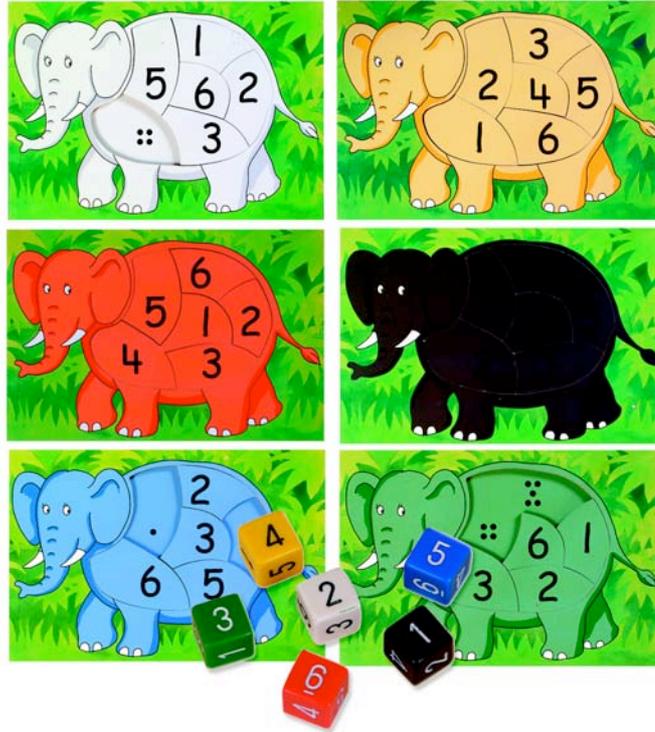


Elephant Jigsaws



Product Code

M-ELE

Contents

6 Tray Jigsaws
12 Dice

Introduction

This set of six jigsaws can be used for individual or group work, at differentiated levels, to support the teaching and assessment of at least 17 of the NNS learning objectives. (Learning objectives are given after each activity, with key objectives emboldened.)

Suggestions

1. Activities at Reception level

• Colour and shape sorting and matching

All 36 jigsaws pieces are placed randomly in the middle of the table. A group of six children take it in turns to throw a dice, with faces of red, blue, yellow, green, black and white, in order to collect any piece of the colour matching their baseboards. Each piece is placed on the corresponding outline shape to complete the jigsaw. No numeral recognition or counting ability is necessary. Alternatively, each child can have a dice and work individually.
[Sort and match objects]

• Collaborative colour and shape matching



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The first activity can be developed through each child not only throwing the colour ice and collecting one particular colour as before, but also by taking any piece of whichever colour has been thrown and giving it to the child who needs it. This develops a collaborative approach and also avoids potential long waits for a particular colour to be collected by one individual.

[Use developing mathematical ideas and methods to solve practical problems involving counting and comparing]

- **Matching numerals to arrays**

The children repeat the first two games, using a 1-6 dice instead of a coloured one to emphasise number recognition. Early recording can be encouraged through each child using a photocopy of the elephant outline, enclosed with the jigsaw pack, on which to record either each array of dots, or the correct numeral by each array.

[Recognise numerals]

[Begin to record numbers]

- **Ordering numbers**

Each child uses a 1-6 dice, each matching the individual colour being collected, to obtain pieces 1 to 6 in the correct order. The children play simultaneously, so that waits for a particular piece are reduced to the minimum.

[Order a given set of numbers]

- **Collaborative ordering activity**

As in the previous colour and matching group activities, the children work together. Each child offers any number that s/he does not require to another player who has yet to collect it. The pieces must still be collected in the correct order. Thus checking skills will be encouraged as children look to see who needs a particular number. This will vary, from child to child, as the game develops.

[Order a given set of numbers]

[Use developing mathematical ideas and methods to solve practical problems including counting and comparing]

- **Positional language**

If adult support is available when the jigsaws have been completed, the activities can be developed, and children's understanding assessed, through questioning e.g. "What number is above 5? Below 6? Next to 2? Before 4? After 3? Between 4 and 6?" Children's own vocabulary can be extended if they themselves ask questions of the rest of the group e.g. "I'm thinking of a number that is above 6 on my jigsaw." It is important to stress that the position of the pieces, and not the value and order of the numbers, is being discussed.

[Use everyday words to describe position]

- **More or less?**

Each child uses two 1-6 dice and works independently. Both dice are thrown simultaneously. After each throw the jigsaw piece that represents the larger of the two numerals thrown is taken and put in place e.g. throw of 4 and 2, 4 is taken. Which numbers are easier and harder to collect? Why? How can number one be collected? The children can suggest rules e.g. if all five other pieces are in place, piece one is automatically won. The game can be repeated with a 'less' rule. In this case, how will piece 6 be collected? A rule will also need to be discussed and decided upon for throws of two equal numbers.

[Use language such as more or less, greater or smaller, to compare two numbers and say which is



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more and less]

• More or less? (with adult support)

Only one 1-6 dice is used. The children take it in turns to throw the dice and each holds the matching piece until all in the group have had a turn. The teacher then throws the dice. Any child who is holding a piece that is more than the teacher's throw wins a counter. All pieces, whether more or less than or equal to the teacher's throw, are then placed on the baseboards. The children can be asked: "When will no-one win a counter?" (teacher throws 6), "When is it likely that several children might win?" (teacher throws 1). When one jigsaw is complete the counters are tallied and the overall winner is awarded a special counter e.g. a small elephant. All small counters are returned to the teacher and the next game begins. Alternative versions can be played e.g. 'less than' the teacher's throw, 'one more than' the teacher's throw, or 'one less than' the teacher's throw. If the teacher throws two dice, (preferably 0-9 in this instance), a 'number between' game can be played e.g. teacher throws 4 and 7, any child holding 5 or 6 can win a counter. What if equal numbers are thrown?

[Find one more or less than a number]

[Say which is more or less and say a number that lies between two given numbers]

2. Extension activities at Year One and Year Two levels

• Addition and subtraction activities (with adult support)

The early colour and number matching games can be repeated with the teacher asking questions at the end of each round e.g. "Who has collected two pieces in their jigsaw?" "Whose numbers add to 3? To more than 3? How many more than 3? What is the smallest total we can make with two pieces? What is the largest total from two pieces? What is the difference between the largest and smallest number on everyone's jigsaw? In how many ways can we find a difference of 2?" Children can be encouraged to realise that there are often several correct answers to questions. The activity can be used for assessment, or made into a game with counters awarded for correct responses.

[Understand the operation of addition and of subtraction, (as 'take away', 'difference' and 'how many more?'), and use the related vocabulary] (Y.1.)

• Four operations

Each child has two 1-6 dice and plays independently. Jigsaw pieces can only be won by the child making an addition or subtraction calculation from the two numbers thrown e.g. a throw of 4 and 2 could secure piece 6, $(4+2)$, or piece 2, $(4-2)$. Jottings can be encouraged on the elephant outline i.e. the calculation that won each piece should be recorded in the appropriate space. Children working on Year Two objectives could also make multiplication and division calculations e.g. a throw of 4 and 1 could secure piece 4, (4×1) or $(4 \div 1)$, instead of piece 5 $(4+1)$ or piece 3 $(4-1)$. When the recordings are complete the children could score their elephant calculations e.g. one point for a correct addition, two points for a subtraction, three points for a multiplication and four for a division. More able children could exchange elephant papers with a partner in order to check each other's calculations and scoring.

[Begin to use the + and - signs to record mental calculations] (Y.1.)

[Choose and use appropriate number operations and mental strategies to solve problems] (Y.1)

[Use known number facts and place value to carry out mentally simple multiplication and division] (Y.2)

[Choose and use appropriate operations and efficient calculation strategies, (e.g. mental, mental with jottings), to solve problems] (Y.2).

