Ready-Ed Publications

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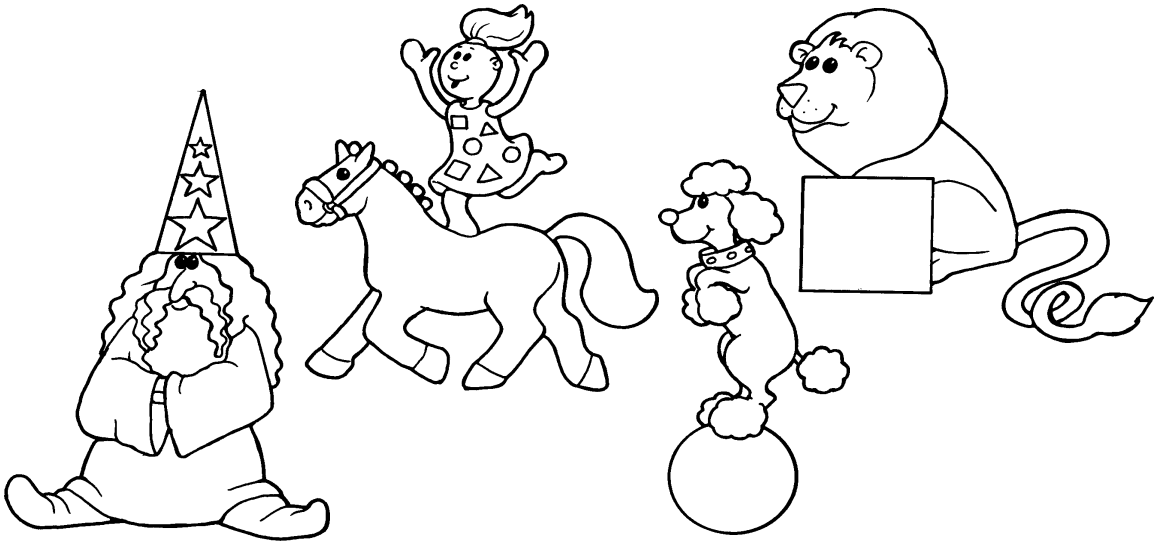
PHOTOCOPY MASTERS

The Shapes & Spaces Series

Book 1 - For Years 2 to 4

SHAPES AND SPACES AT THE CIRCUS



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Teacher Information

"Shapes and Spaces at the Circus", an activity book suitable for 6 to 8 year old children, uses the theme of the circus to introduce early spatial language and concepts. The activities are outcome based and provide children with the opportunity to develop early knowledge of

- pathways;
- mazes;
- spatial features of 2-D shapes;
- spatial features of everyday objects;
- matching shapes;
- recognising the similarities and differences in shapes;
- describing possible functions of shapes;
- arranging shapes according to size, shape;
- symmetry;
- repeated patterns;
- tessellations;
- classifying shapes using spatial features;
- identifying shapes;
- spatial language;
- manipulating 2-D shapes;
- copying shapes;
- function of 2-D shapes;
- and ways in which 2-D shapes can move.

Some nets for 3-D shapes are included at the back of the book so children can begin early experimentation with these.

Games and activities involving handling, arranging, building, stacking, packing and investigating these shapes are included on page 4 of this book.

Contents

Games and Activities Using Concrete Material

It is vital that children's early experience with space and shape involve handling, arranging, building, stacking, packing, rolling, sorting, matching and investigating a variety of three dimensional objects that exist in their everyday environment.

The type of everyday objects that can be used to develop important mathematical spatial awareness are:

- ❖ blocks of all shapes and sizes;
- ❖ models of regular shapes (cubes, pyramids);
- ❖ building sets and construction kits;
- ❖ toys (marbles, buttons, balls, jigsaw puzzles);
- ❖ manipulative material (Plasticine, playdough, wire, string);
- ❖ playground equipment;
- ❖ school buildings;
- ❖ school yard;
- ❖ classroom;
- ❖ furniture.

Some suggestions on using these materials are:

Compare the building blocks according to size, shape, colour and possible uses.

Classify blocks using properties like colour, shape, number of corners and number of faces.

Build structures from an assortment of blocks following a "brief" or a set of instructions, e.g. Build a tower using ten square blocks and ten rectangular blocks.

Have discussions with children about which blocks would suit specific purposes, e.g. Which blocks would stack, roll or be more suitable for balancing on other blocks?

Investigate the way in which the different blocks can move, e.g. Can they spin, roll, slide?

Identify things in their classroom, school yard or bedroom that are the same shape as the blocks.

Cut out appropriate pictures from magazines and glue them onto charts that represent different shapes.

Use blocks to play games to develop the concepts of repeated patterns and symmetry.

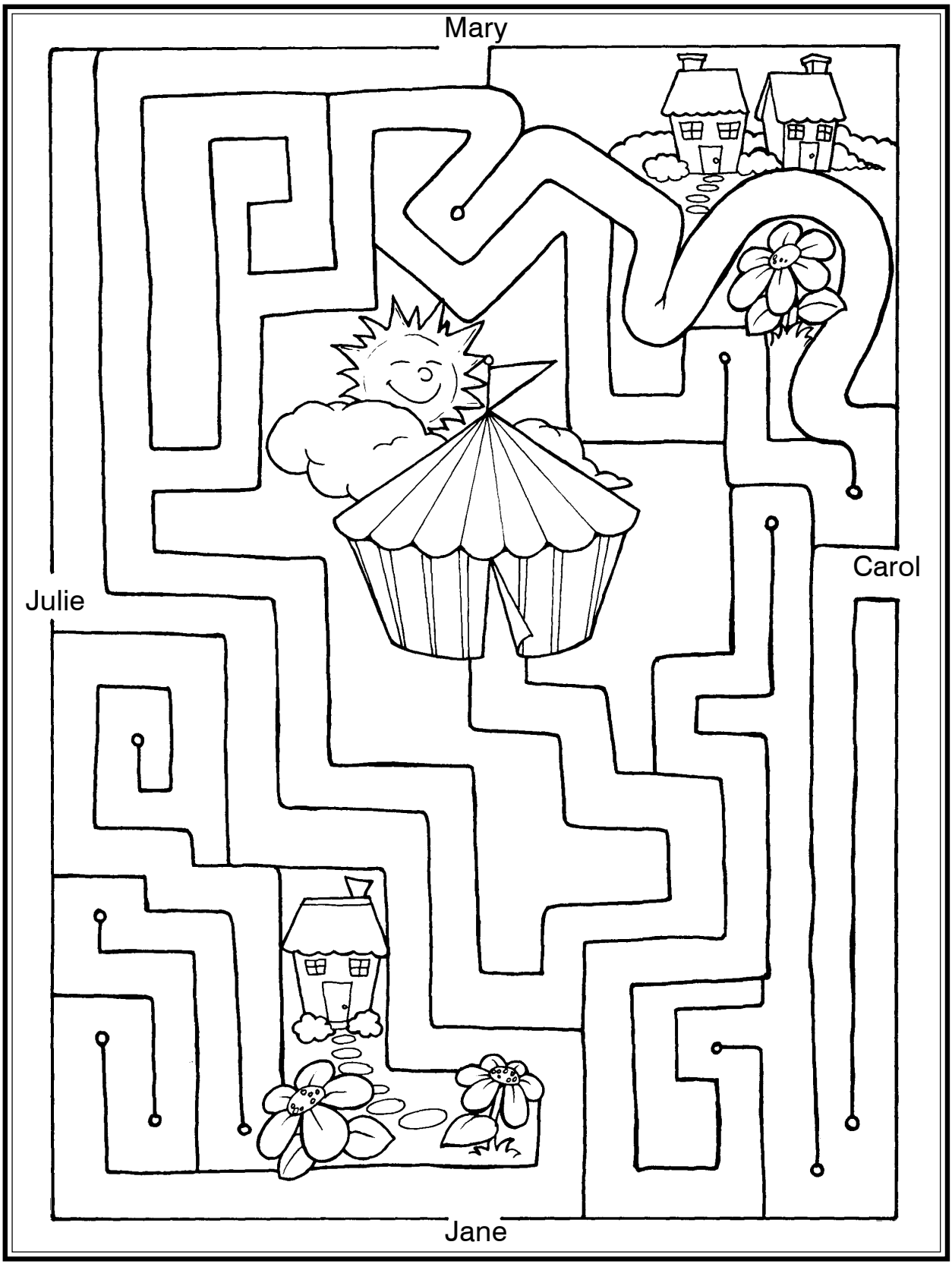
Develop children's spatial language by encouraging them to describe their models and constructions to other children in the class.

Encourage children to evaluate their model making efforts by explaining how and why they constructed the model and if it was a success.

Going to the Circus

Carol, Mary, Julie and Jane are going to the circus.

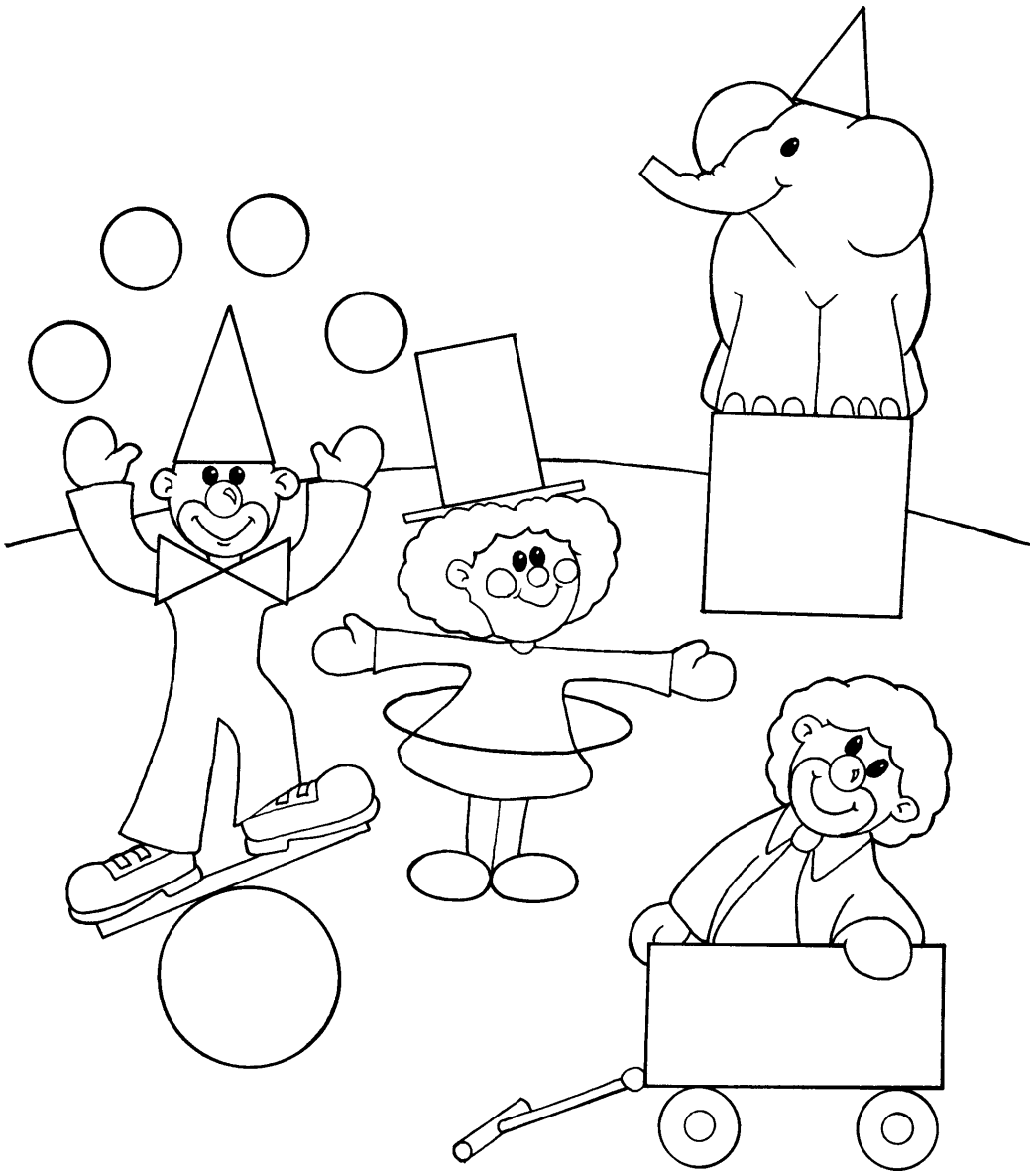
❑ Who has taken the right path?



Outcome: Children attend to the general spatial features of an object.

At the Circus

❑ Count all the different types of shapes in the picture.



How many squares?  ..... Colour them blue.

How many triangles?  ..... Colour them yellow.

How many rectangles?  ..... Colour them orange.

How many circles?  ..... Colour them black.

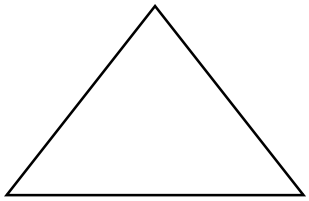
How many ovals?  ..... Colour them red.

Colour the rest of the picture.

Outcome: Children remember the shape of objects and components of the object.

Match the Shapes

❑ Label each shape. Draw a line from the shapes to the matching part of the pictures. You might find each shape more than once. Colour the pictures.



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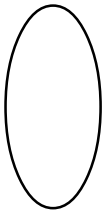

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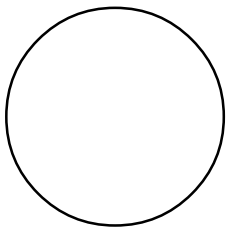

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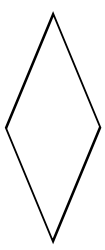

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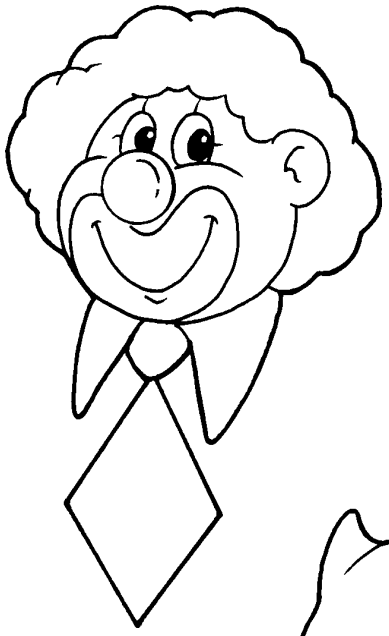
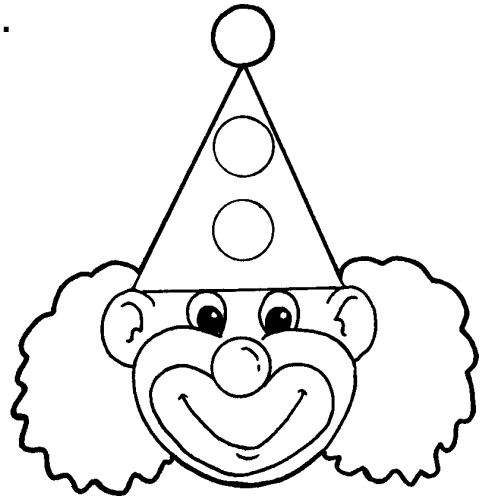
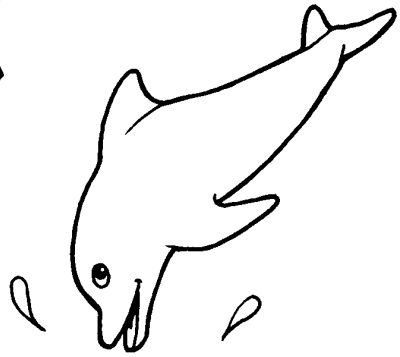
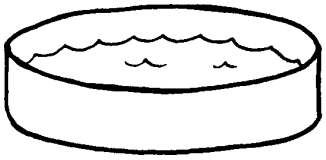
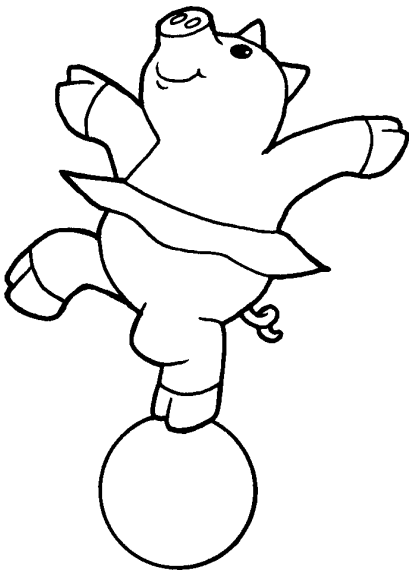
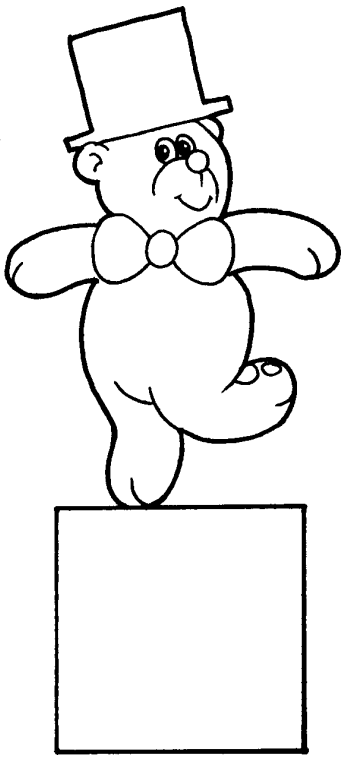












Circus Shapes 1

Here is a list of words to describe shapes:

flat, straight, curved, round, square, pointed.

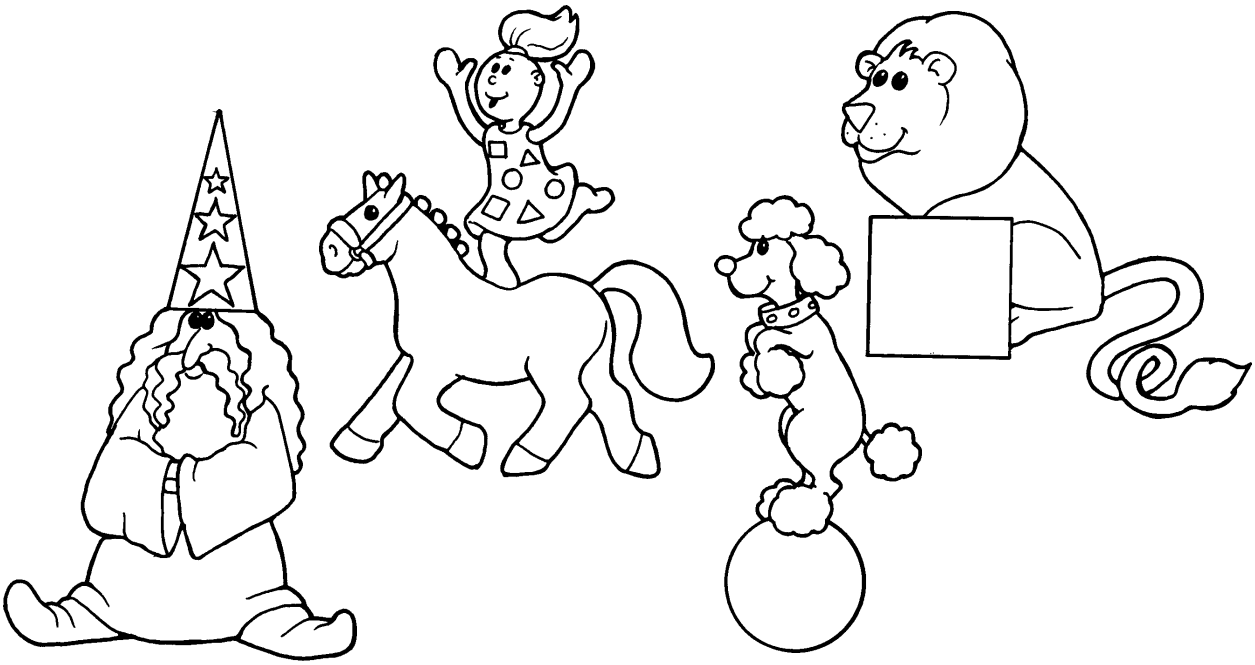
❑ Can you add some more words to the list? .....

.....

.....

❑ Look at the picture.

Use the words to describe the objects in the picture.



The poodle's ball is .....

The lion's tail is .....

.....

The bareback rider's costume has .....

.....

The magician's hat is .....

.....