

WORK IT OUT	Locate - Manipulate “Layout”	4-31 Level 3 Exercise 1
Aims	<ul style="list-style-type: none"> - Manipulate. - Recognise geometric shapes. - Compare. - Reconstruct. - Locate different elements in a model and reproduce the model. - Check that the work is in accordance with a model. 	
Applications (examples)	<p><u>In class</u>: any exercise consisting in recognising a simple shape and being able to identify a shape by the place it occupies in a space or in relation to others. Initiation in solid geometry, angles and complementary shapes in plane geometry.</p> <p><u>At work</u>: any job in packing and packaging, warehousing (storage), assembly of all sorts.</p> <p><u>In everyday life and for leisure</u>: arranging storage space (cupboards and kitchen), loading the car before going on holiday, particularly for using the space between the seats, or underneath... Putting foodstuffs in the refrigerator, putting purchases in bags at the supermarket, etc.</p>	
Materials	<ul style="list-style-type: none"> - A page on which is shown a layout for a magazine article, with the different boxes. - A blank page to do the work. - A pencil, a rubber and a ruler for each pupil, and the teacher can perhaps have to hand a stock of tubes of glue, scissors and blank paper or cardboard. 	
Task	<p>The pupils must reconstruct on a blank page the layout of the magazine article exactly as it is shown in the model. The written indications must also be reported. Those pupils have difficulty writing can shade the part that corresponds to the writing on their page.</p>	
Comments	<p>The pupils can find any way that they find efficient to reproduce the model as exactly as possible, for example by cutting out on one page the blocks corresponding to the different boxes and placing them on the blank page, then sticking them in place.</p> <p>To check the exactness of the work, the two pages can be placed one on top of the other in front of a light source (a checking method that the pupils are encouraged to find for themselves).</p>	
Variations (examples)	<p>The teacher can suggest that the pupils think of another layout using the same boxes. Similarly, one variation can be in the types of character used (size, type, bold, italics, etc.) and the layout of a page from a newspaper or magazine can be commented on with all the information collected on the arrangement of the blocks and characters.</p>	
Individualisation	Yes.	
Answers	No, the model gives the answer.	

Title of the article

Title of the column

Photo of the monkey in the tree

*Photo of the monkey
with the man*

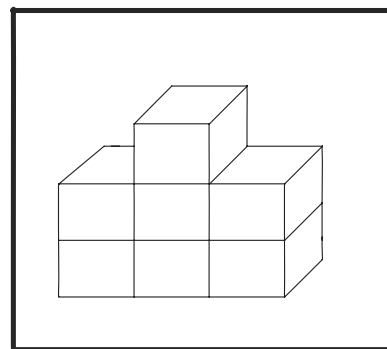
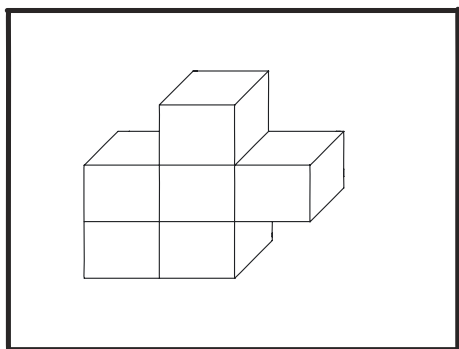
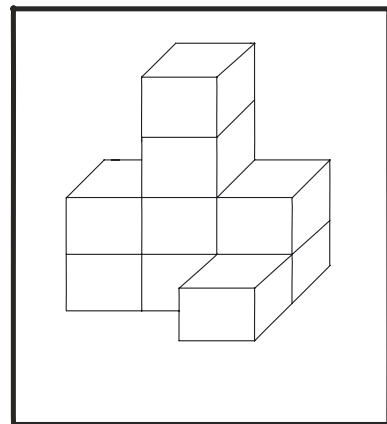
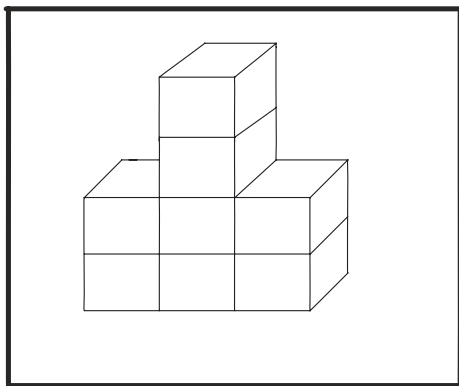
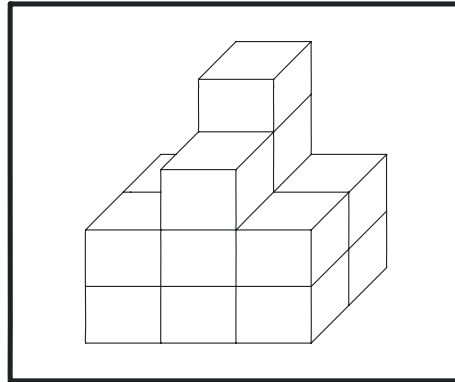
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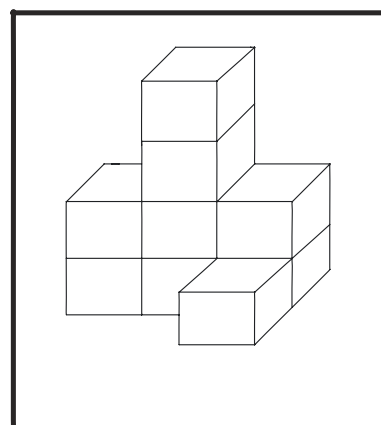
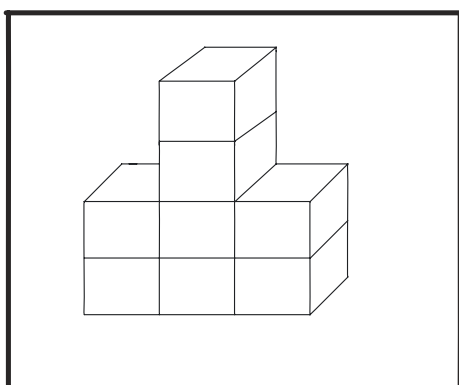
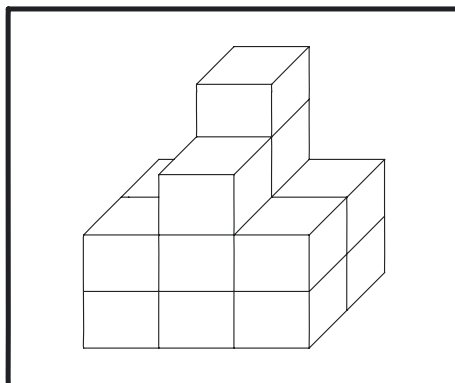
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Photo of the monkey alone

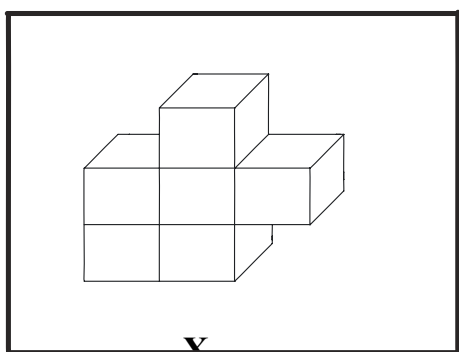
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WORK IT OUT	Locate - Manipulate “Fitting cubes together”	4-32 Level 3 Exercise 2
Aims	<ul style="list-style-type: none"> - Mental manipulation. - Recognise geometric shapes. - Compare. - Reconstruct. 	
Applications (examples)	<p><u>In class</u>: any exercise consisting in recognising a simple shape and being able to identify a shape by the place it occupies in a space or in relation to others. Initiation in solid geometry, angles and complementary shapes in plane geometry.</p> <p><u>At work</u>: any job in packing and packaging, warehousing (storage), assembly of all sorts.</p> <p><u>In everyday life and for leisure</u>: arranging storage space (cupboards and kitchen), loading the car before going on holiday, particularly for using the space between the seats, or underneath... Putting foodstuffs in the refrigerator, putting purchases in bags at the supermarket, etc.</p>	
Materials	<p>A page with:</p> <ul style="list-style-type: none"> - a geometric shape at the top of the page - 4 parts that might belong to this geometric shape. 	
Task	<p>The pupils have to find the two parts which, when fitted one into the other, form the complete geometric shape shown at the top of the page.</p>	
Comments	<p>When the results are pooled, the pupils can explain how they proceeded. The explanations for this type of exercise are not easy to formulate. The teacher will therefore encourage the pupils to find ways of explaining to make themselves understood as well as possible (using pictures, comparison, etc.).</p> <p>If the exercise seems too difficult, it is advisable to do the similar exercise in level 2 first: code 4-21.</p>	
Variations (examples)	<p>The teacher can suggest that the pupils work out and then try and draw the part that would complete each of the two figures that were not chosen.</p>	
Individualisation	<p>Yes.</p>	
Answers	<p>Yes.</p>	

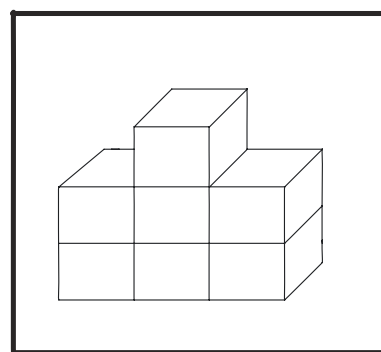




X



X



<div> <div>WORK IT OUT</div> <div> Locate - Manipulate “Load up!” </div> <div> 4-33 Level 3 Exercise 3 </div> </div>	
Aims	<ul style="list-style-type: none"> - Mental manipulation. - Recognise geometric shapes. - Compare. - Reconstruct - Combine.
Applications (examples)	<p><u>In class</u>: understand the wording of a problem and, sometimes, its ambiguities. Know that, unlike what most people think, the value of a sum is not independent from the order of its terms. Beginning mechanics, and also methodology: in this exercise there are open choices (placing the rounded forms and the flat ones) and a narrower choice (the triangle).</p> <p><u>At work</u>: Loading and stowing jobs, but also understanding mechanical movement (rotation, sliding, blocking). Organisation, safety. Looking for different possibilities of arranging to answer any other possible criteria.</p> <p><u>In everyday life and for leisure</u>: any activity concerning storage, loading or stowage. Cookery procedures in which a certain order has to be respected.</p>
Materials	A page with drawings of different shapes and an electric pallet truck.
Task	The pupils will write numbers from 1 to 7 under the different shapes in the order in which they could be placed one on top of the other on the pallet truck without collapsing.
Comments	<ul style="list-style-type: none"> - Although the drawings do not show it, it is supposed that the different shapes are in perspective and have a certain volume; they are, for example, parts of buildings. However, nothing of this is specified, and the pupils can just as well imagine that they are flat boards used as props in a theatre, for example. The teacher will decide if the group should first agree on what the drawings represent or if he will leave them to interpret the shapes. - The tray of the pallet truck is intentionally a little short for the rectangular load. The pupils can therefore think about problems of safety. - What would be a good way to check the solution(s)? (The pupils can cut out the shapes and pile them on the pallet truck like a sort of puzzle.)
Variations (examples)	How would it be possible to place the shapes on the pallet truck if they were flat theatre props, with no volume?
Individualisation	Yes.
Answers	Yes, but several solutions are possible.

