

## Lowenfeld Poleidoblocs Leaflet

Children learn through action.

Mathematics are exciting.

Poleidoblocs give children opportunity to gain intuitive mathematical understanding of space and Form through making individual constructions with blocks which embody mathematical relations of great variety.



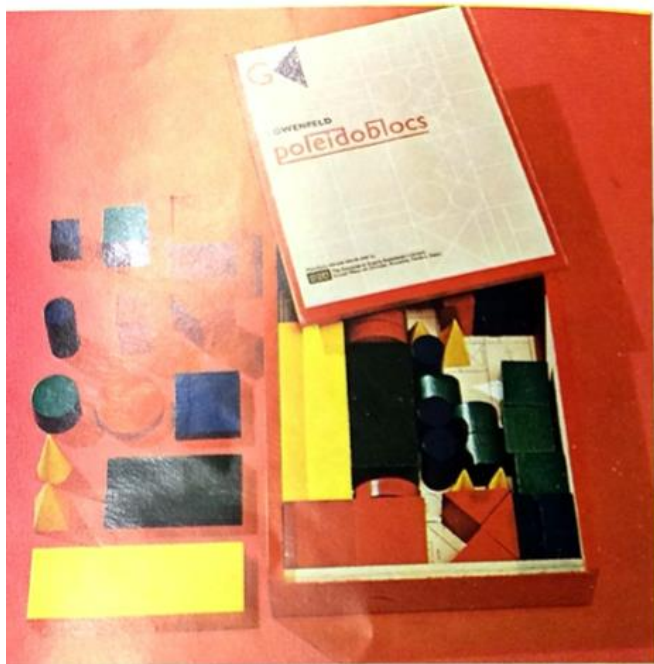
After long and careful psychological research Margaret Lowenfeld designed Poleidoblocs G and A to meet this need.

Although specifically produced to assist in the teaching of mathematics, Poleidoblocs aim to help children to bring the enthusiasm of play activities to the discovery of the properties of the blocks and how they can be used to make new objects expressing each child's ideas and interests.

Poleidoblocs provide the teacher with powerful tools which can give children essential experience of mathematical relationships, later to be expressed symbolically with understanding.

Poleidoblocs comprise two boxes of wooden blocks. Set G consists of 54 blocks in four colours of wood. Set A of 140 blocks in plain wood. Additional to this set of six regular and six irregular tetrahedrons and 24 red 1 inch plastic squares for measuring and counting.

## POLEIDOBLOCS G



The individual blocks of Poleidoblocs G are cut in six basic shapes: cubes, cuboids, cylinders, triangular prisms, cones and pyramids.

The set consists of:

Series of three cubes: 2 inch (red), 1 ½ inch (green) and 1 inch (blue) diameter.

Series of three cuboids: 6 x 2 (yellow), 4 x 2 (green) and 2 x 2 (blue) ; 1 ½ inch thick.

Series of three cylinders: 2 inch (red), 1 ½ (green) and 2 inch (blue) in diameter, fitting on the faces of the relevant cubes. The cylinders increase in diameter in arithmetic progression and decrease in height in geometric progression.

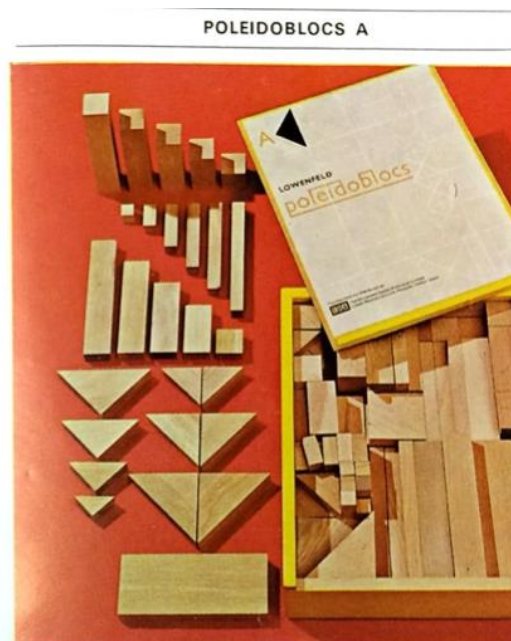
In addition red cubes are divided into quarters with two different cuts at right angles through the cube, in one case diagonally and in the shape from the midpoint of each face.

Also four blue 2 x 2 cuboids can be looked upon also as a division of the 2 inch cube by three cuts running parallel to the face of the cube. These sections of the 2 inch cube by three cuts running parallel to the face of the cube. These sections of the 2

inch cube thus give rise to two sets of four cuboids differing in shape, and four *triangular prisms*, all equal to one another in volume.

Finally, three cones (yellow), 2 inch in height with bases 1 inch in diameter. Equivalent to the end faces of the blue cylinders and three pyramids (yellow) with the base of one square inch fitting on top of the red pillars.

It will therefore be seen that these blocks interrelated with each other in a wide variety of ways, the red cube acting as the kernel.



**Poleidoblocs A consist of:**

Rectangular prisms in lengths of 5, 4, 3, 2 and 1 inches. Four sections with cross sections of 1 x 1 inch, 1 x ½ inch, ½ x ½ inch and eight prisms.

Four rectangular prisms 5 x 2 x ½ inch.

Twenty-four small cubes ½ x ½ x ½ inch.

Right-angled triangles:

Eight with 2 ½ inches on the short sides all ½ inch thick.

Eight with 2 inches on the short sides all 1/2 inch thick.

Eight with 2 inches on the short sides all 1/2 inch thick.

Twenty with 1 inches on the short sides all 1/2 inch thick.

To the experienced eye it will immediately be apparent that a variety of fractional experiments and expressions are possible collection, as well as the simplest expressions of ordinal a number.

Red squares of 1 inch supply tools for measuring and counting.

The blocks of Poleidoblocs A can be used to construct that of Poleidoblocs G with the exception of the cylinders.

### **Tetrahedra:**

For more senior work a set of six rectangular and six irregular are supplied, relating to the 121 in. cubes of Poleidoblocs G.

A base diagram on the floor of each box of Lowenfeld Poleidoblocs Lures correct replacement of the blocks and helps the teacher make sure at a glance that no pieces are missing.

It is of vital importance that each box is complete.

Should loss of a single piece occur replacement items are available.

### **Poleidoblocs Set A Reference 7467/00**

A strong wooden box containing 140 blocks in plain wood. Includes instruction manual.

Price per set, tax free £4 12s 6d.

### **Poleidoblocs Set G Reference 7468/00**

A strong wooden box containing fifty-four blocks in our different colours and instruction manual.

Price per set, tax free £4 10s 0d.

Regular Tetrahedra Reference **7568/01**

Set of six, packed in polythene bag.

Price per set, tax free 7s 6d net.

Irregular Tetrahedra Reference **7468/02**

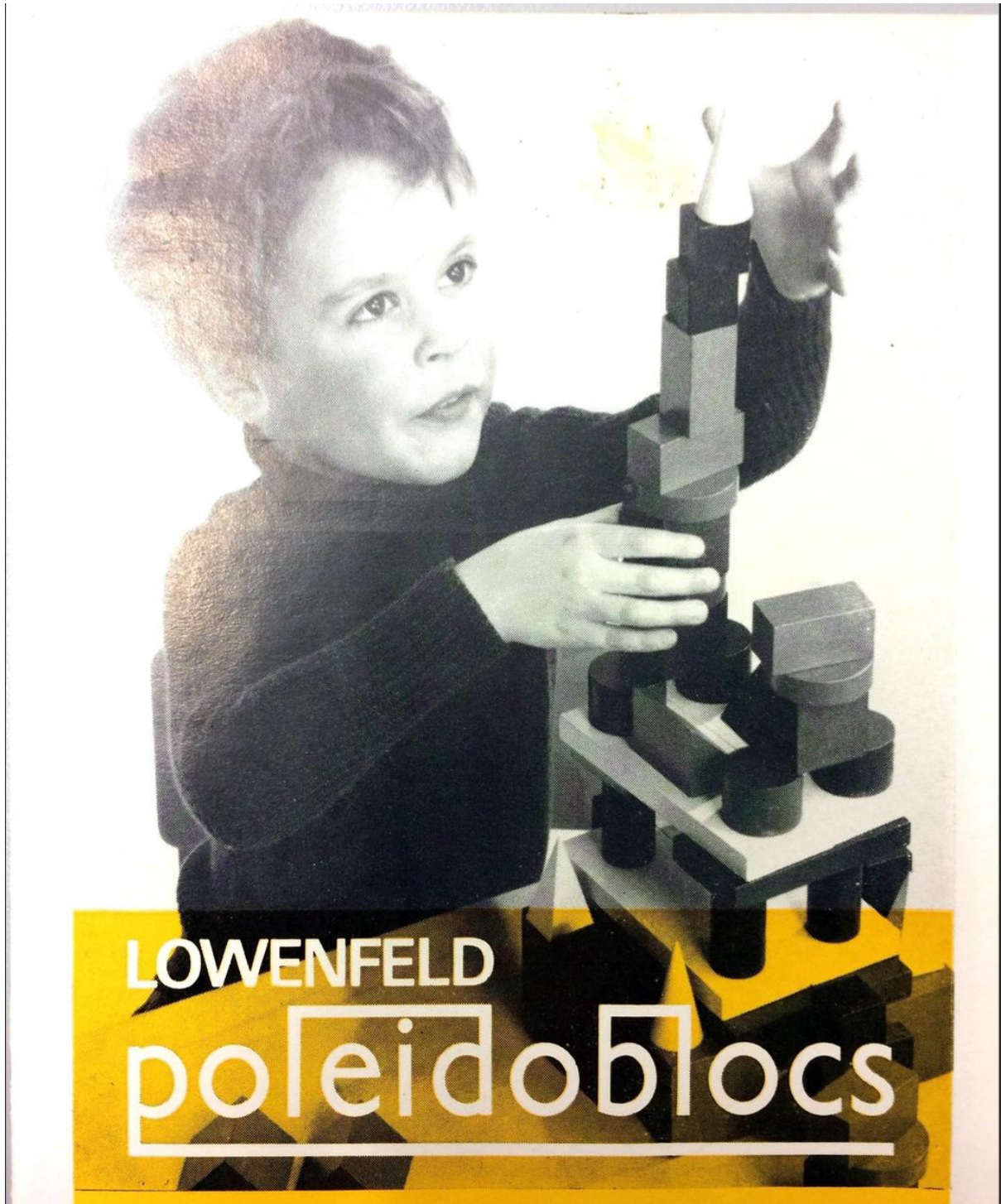
Set of six, packed in polythene bag.

Price per set, tax free 7s 6d net.

Squares Reference **7468/07**

1 in plastic coloured red, for use with Poleidoblocs A as measuring tools. Twenty four in polythene bag.

Price per set, tax free 3s 3d net.



LOWENFELD

poleidoblocs









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Although specifically produced to assist in the teaching of mathematics, Poleidoblocs aim to help children to bring the enthusiasm of play activities to the discovery of the properties of the blocks and how they can be used to make new objects expressing each child's ideas and interests.

Poleidoblocs provide the teacher with powerful tools which can give children essential experience of mathematical relationships, later to be expressed symbolically with understanding.

Poleidoblocs comprise two boxes of wooden blocks. Set G consists of 54 blocks in four colours. Set A of 140 blocs in plain wood. Additional to this a set of six regular and six irregular tetrahedra and 24 red 1 inch squares for measuring and counting.



The individual blocks of Poleidoblocs G are cut in six basic shapes: cubes, cuboids, cylinders, triangular prisms, cones and pyramids.

**The set consists of:**

A series of three cubes: 2 inch (red), 12—1 inch (green) and 1 inch (blue).

A series of three cuboids: 6 x 2 (yellow) 4 x 2 (green) and 2 x 2 (blue); all 1/2 inch thick.

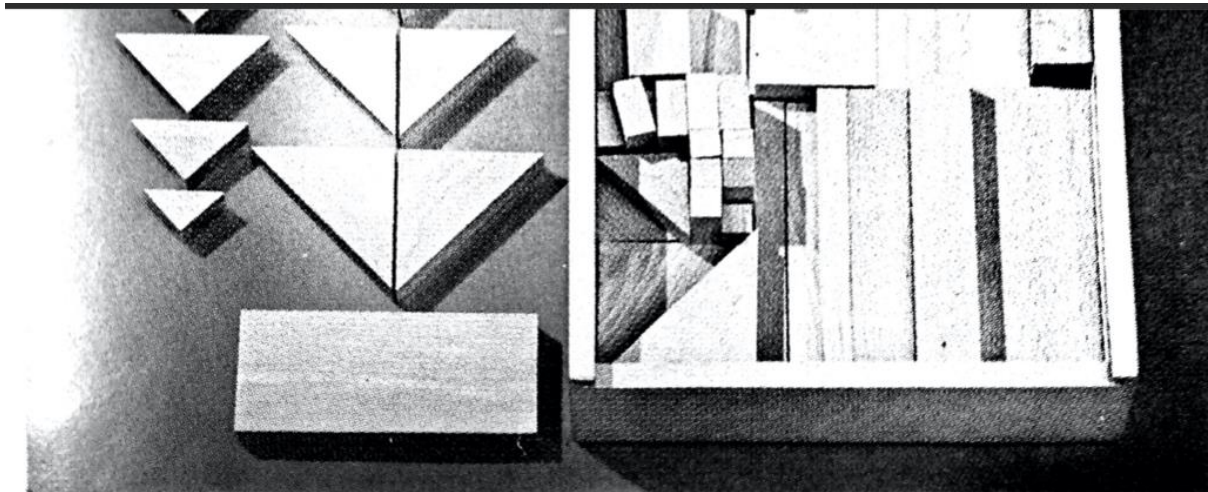
A series of three cylinders: 2 inch (red), 1 ½ inch (green) and 1 inch (blue) in diameter, fitting on the faces of the relevant cubes. The cylinders increase in diameter in arithmetic progression and decrease in height in geometric progression.

Two additional red cubes are divided into quarters with two different cuts running at right angles through the cube, in one case diagonally and in the other from the midpoint of each face.

The four blue 2 x 2 cuboids can be looked upon also as a division of the red 2 inch cube by three cuts running parallel to the face of the cube. These divisions of the 2 in. cube thus give rise to two sets of four cuboids differing in shape, and four triangular prisms, all equal to one another in volume.

Finally, three cones (yellow), 2 in. in height with bases 1 inch in diameter, equivalent to the end faces of the blue cylinders and three pyramids (yellow), with base of one square in fitting on top of the red pillars.

It will therefore be seen that these blocks interrelate with each other in a wide variety of ways, the red cube acting as the kernel.



**Poleidoblocs A consist of:**

Rectangular prisms in lengths of 5, 4, 3, 2 and 1 inches. Four sets of each with cross sections of 1x1 inch, 1x1/2 inch, 1/2 x 1/2 inch and eight 1 x 1/2 x 1/2 prisms.

Four rectangular prisms 5 x 2 x 1/2 inch.

Twenty-four small cubes  $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$  inch.

Right—angled triangles

Eight with 2  $\frac{1}{2}$  inches on the short sides all  $\frac{1}{2}$  inch thick.

Eight with 2 inches on the short sides all  $\frac{1}{2}$  inch thick.

Eight with 2 inches on the short sides all  $\frac{1}{2}$  inch thick.

Twenty with 1 inches on the short sides all  $\frac{1}{2}$  inch thick.

To the experienced eye it will immediately be apparent that a very large variety of fractional experiments and expressions are possible with this collection, as well as the simplest expressions of ordinal and cardinal number.

Red squares of 1 inch supply tools for measuring and counting.

*The blocks of Poleidoblocs A can be used to construct the blocks of Pole/dob/ocs G  
With the exception of the cylinders.*

### **Tetrahedra:**

For more senior work a set of six rectangular and six irregular tetrahedra are supplied, relating to the 1  $\frac{1}{2}$  inch cubes of Poleidoblocs G.

A base diagram on the floor of each box of Lowenfeld Poleidoblocs ensures correct replacement of the blocks and helps the teacher to make sure at a glance that no pieces are missing.

It is of vital importance that each box is complete.

Should loss of a single piece occur; replacement items are available.

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