

INSTRUCTIONAL MATERIALS IN MATHEMATICS

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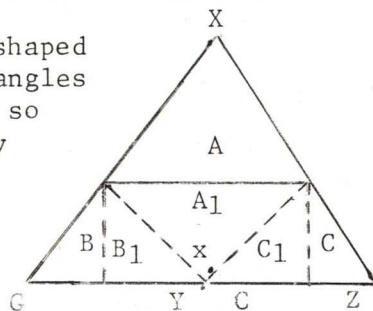
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While we might attempt to use bulletin board displays of pictures to describe the different forms of the cylinder, sphere, circle or square as they are seen in everyday life (for example, oil tanks at a refinery, illustrating the cylinder), the effectiveness of the use of such material will depend largely on the precise moment when these visualized examples are integrated in the lesson.

Other means can be used to bring meaning to mathematical concepts. Such models as the following can be easily constructed:

The Sum of the Three Angles of a Triangle is Equal to 180° .

Take a piece of wood half an inch thick and shaped in the form of a triangle to form the three angles x , y , and z . The triangle is cut and hinged so that the three small triangles A, B , and C may fold inwards to a new position A_1, B_1, C_1 ; the three angles x, y , and z added together form a straight line on the base, i.e. they are equal to 180° .



Pythagoras' Theorem - The construction of this model consists of a number of models, each consisting of a backboard on which is mounted in relief a right-angled triangle. On each side of this triangle is a square tray into which various wooden shapes can be fitted.

Have you considered teaching the concept of the ruler using an overhead projector? By projecting overlays of the divisions of the inch into $1/2, 1/4, 1/8$, and $1/16$ of an inch you can have a most effective lesson. You can also use overlays of fractions on the circle.

Examine the new sets of transparency masters recently released by 3M. Masters include Plane and Solid Figures, Sets and Sentences, the Pythagorean Theorem, Polar and Rectangular Coordinates, and Introduction to Probability.