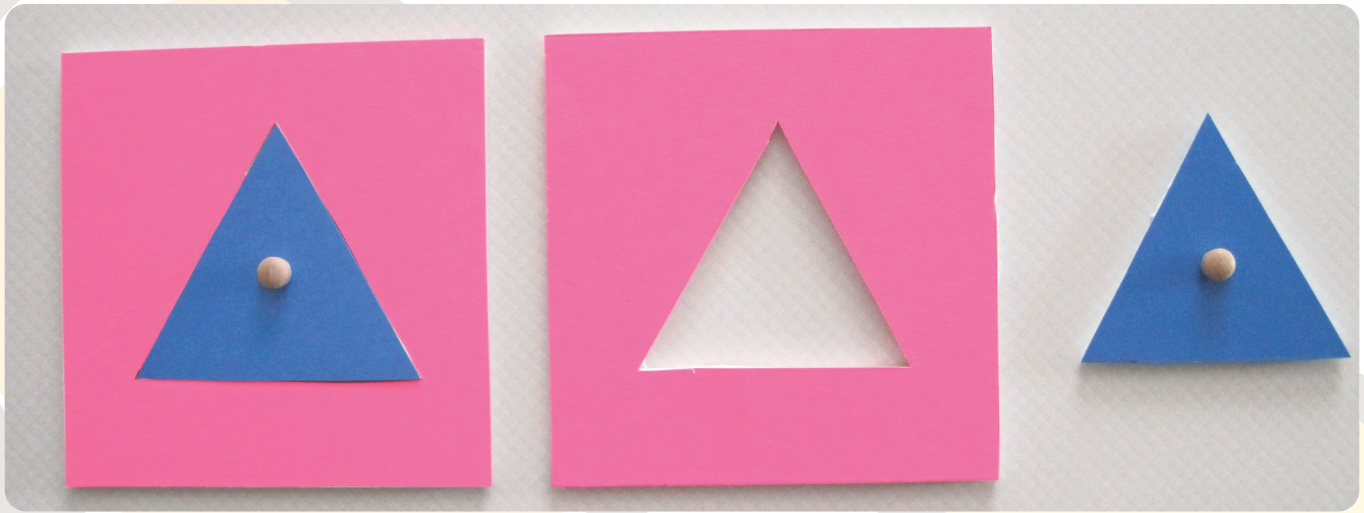


Metal Insets



Purpose

- To prepare a child for printing.
- To teach a child how to hold a pencil properly.
- To teach a child to sit correctly when writing.
- To encourage the lightness of touch when using a pencil.

Age: 3–6 years old.

Background information

Dr. Montessori observed the immense enjoyment that children derive from writing, drawing, and coloring. She also noticed that some children struggle to write their words legibly. Drawing on these two seemingly isolated observations, Montessori successfully combined a child's love of using pencil crayons with an activity that is intrinsically designed to improve a child's fine motor skills and penmanship — the Metal Insets.

Montessori children typically continue working with the Metal Insets until they are capable of creating complex and balanced designs and have developed legible printing skills.



You will need

- Metal Insets.*
- Inset paper — white and a variety of colors, cut into squares measuring 5.5 x 5.5 inches (14 x 14 cm).
- Colored pencil crayons.
- Tray.

* To create your own Metal Insets, please use the following instructions:

You will need

- Metal Insets (see blackline masters).
- Pink corrugated plastic (or foam core board with pink paper adhered to it), precut into ten squares, each measuring 5.5 x 5.5 inches (14 x 14 cm).
- Fine sandpaper.
- Scissors.
- Hot glue gun and glue sticks.
- Utility knife.
- Ten very small doweling knobs.
- Box or container.

Preparation

Print out all ten Metal Insets from the blackline masters. If possible, use a color printer to print the insets so that they are correctly represented in blue. Alternatively, you may leave all insets in black. Cut out the insets and affix each one to the center of a plastic square with a hot glue gun. Using the utility knife, cut around the outer edge of each inset, removing it from the plastic square. Lightly sand the edges of the inset and the inner frame. You have now created the frame and inset, which together make up a Metal Inset. You will be making ten Metal Insets: square, triangle, circle, rectangle, oval, trapezoid, pentagon, curvilinear triangle, ellipse, and quatrefoil. Use the glue gun to affix a small doweling knob to the center of each inset. This makes it easier to handle the insets, plus it strengthens your child's pincer grip.

Store the Metal Insets in a box or container.

Presentation

- Invite your child to a table to work with the Metal Insets.
- Remove the pentagon Metal Inset from the box or container and place it on the table together with the inset paper and pencil crayons. Note: Your child may find it easier to work with the rectangle or ellipse first.
- Remove the inset from the frame and place it on the tray.
- Position the inset paper in front of you, and place the pentagon frame on the paper.
- Hold the frame steady with your non-dominant hand, and trace inside the frame with a pencil crayon (in a counter-clockwise direction).
- Remove the frame and place it to the side.
- Select another pencil crayon and fill in the shape by drawing horizontal lines from one side of the shape to the other, moving from left to right. Note: It is important to draw the lines from left to right because that is the direction in which the English language is written and read.
- Review with your child how to correctly hold a pencil, or provide a pencil grip to facilitate the process.
- Invite your child to repeat the activity using a new sheet of inset paper.
- When she has successfully completed the task, tell her that she is now welcome to work with any of the Metal Insets in the same manner. For variety, she may choose to use colored pieces of inset paper.



- Remind her to return the materials to the shelf when she is finished, and place her work in the pink language arts folder.

Variations

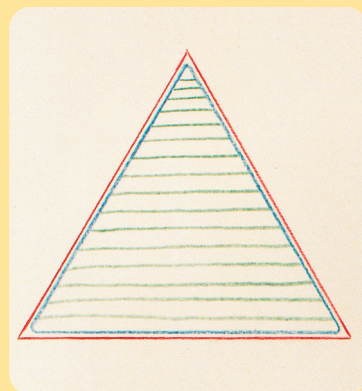
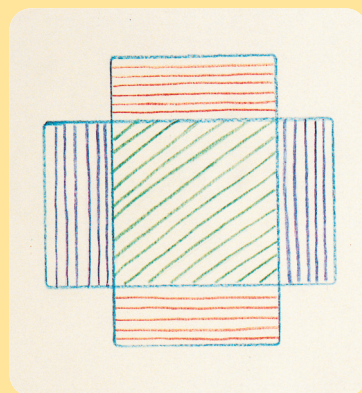
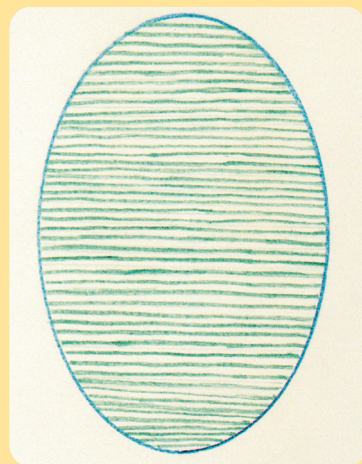
- Repeat the presentation by filling in the lines very close to one another, but not touching each other.

and

- Trace one shape in two different positions. For example, use the frame to draw a rectangle, and then turn it 90 degrees, and trace the shape again.
- Show your child how to fill in a symmetrical pattern by using more than two colored pencil crayons and keeping the lines as close together as possible, but not touching each other.
- Explain that she can alternate colors to complete the variation.
- Vertical, diagonal, and wavy lines can also be introduced.

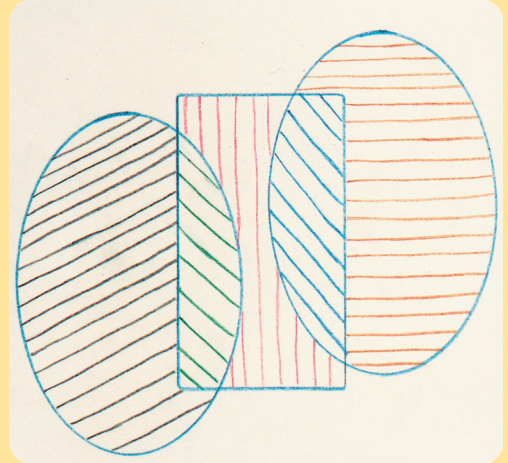
and

- Trace the inside of one shape, e.g., triangle, using the frame.
- Position the matching inset directly on top of the shape on the paper.
- Trace it with a different colored pencil crayon. The second identical shape should appear just outside of the first one.
- Ask your child to fill in the first shape with a third pencil crayon.



and

- Demonstrate to your child how she can create designs by using more than one type of shape, e.g., ellipse and rectangle.
- She can utilize the frames, insets, or both to produce her designs.
- Color with a variety of pencil crayons and line types.



and

- Show her how to complete an entire sheet with designs by using a variety of frames, insets, colors, and line types. Invite her to fill in the entire paper with lines of her choice.

and

- Demonstrate to your child how a design can be repeated on a long strip of paper by moving the frame from left to right.
- The resulting border effect can be used to embellish a booklet she has made or as a bookmark.