Build your own Early Childhood Compound Microscope

Materials:
1 acrylic riser 6" x 6" (Source: Palay Display, $4.25 each)
2 loupe lenses (Source: Harbor Freight, $3.99 for a 5 pack)
1 piece of foam core 6" x 7"
1 rubber band (Staples "big rubber bands", $5.49 for 24)
Krazy glue
Light source (optional)
Phone or camera for increased magnification and photography (optional)

Note: Do not squeeze the Krazy Glue tubes. You only need little drops of glue!

Directions:
1. Select 2 loupe lenses (for a total of 20-35x)
2. Use tissue to clean both of the lenses
3. Using ***only a couple*** **SMALL drops of glue**, glue the two loupes together so that one loupe sits inside the other
(WARNING: TOO MUCH GLUE DISCOLORS THE LENSES!)
4. Unwrap your acrylic riser and try to get as few finger prints on it as possible
Turn it upside down
5. Select the area about 1" in from the edge of the platform where you will attach your lens. Choose an area that doesn't have fingerprints.
6. Put ***2-3 SMALL drops*** of glue on the edge of your loupe
7. Attach it to your stage & let it dry
1. 8. Turn your platform over, and place it on the foam core. Use the utility knife to cut the foam to the size of the riser. (Cut along the outer sides of the riser.)
9. Insert the foam core between the legs of the riser (This is your microscope stage)
10. Wrap a rubber band around the bottom of the platform (This applies some tension and will enable you to move the stage up and down)

To use:
1. Gently place your items on the magnifying stage
2. Look through the eyepiece and move the stage up and down to bring objects into focus. Move the rubber band up to support the stage as needed.
3. You can add a light source under the stage to enhance visibility of the object
4. You can place a phone or camera on top of the eyepiece and zoom in on the object to increase magnification. Photographs can be used for class books, newsletters, class blogs, class writing, etc. . . .

For basic information about microscopes, see:
http://www.encyclopedia.com/topic/compound_microscope.aspx

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