Piece by Piece

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Materials Needed:
5 - 8 Butterfly photographs (from magazines or Internet resources)
3" squares (cover stock preferred)
Pencils
Crayons, colored pencils, or markers
Rulers
Tape

Procedure:
(1) Prepare sample photographs by dividing them into 1" squares. Place the pieces of each photograph in an envelope. Keep a copy of the original picture for later reference.
(2) Divide the students into teams and distribute envelopes to the various teams. Instruct them to divide the pieces equally among the team members.
(3) Demonstrate the process of enlarging the photo from a small piece to a larger one.
(4) Allow time for students to enlarge their small pieces. Once all of the pieces have been completed, challenge the students to piece together the puzzle. You may want them to use the small pieces to create a small puzzle to make the process easier.
(5) Once the puzzles have been completed, provide tape to hold them together. Allow time to compare the original to the copy.

Discussion Questions:
(1) How close was your copy to the original? On a scale of 1 to 10 (with 1 being poor and 10 being perfect), how would you rank your final product?
(2) What could you have done to make the copy more accurate?

Extension Ideas:
* Share the completed puzzles with other classmates or younger students. Challenge the children to piece together the original puzzle pieces to form the original picture.
* Use a butterfly shape to create a tessellation picture. Challenge students to create a template that resembles a butterfly. The template can be used to create a work of art!
* Study the symmetry of butterflies (Worksheets provided on the Orkin Insect Zoo site.)

For a list of great Internet sites for butterflies, visit the Kid Zone (Click on Adopt-An-Insect Links, then choose Lepidoptera.)

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