RAFT IDEAS

Topics: Problem Solving, Logic, Reasoning

Materials List (per puzzle)

- ✓ Several craft sticks or tongue depressors
- ✓ Masking tape
- ✓ Marking pens and/or colored pencils

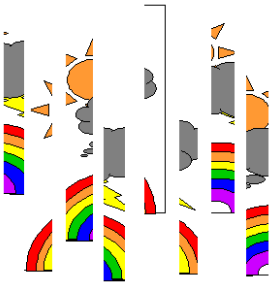
This activity can be used to support the teaching of:

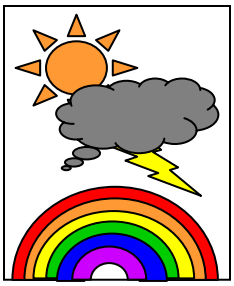
- Problem Solving and Reasoning (Common Core Math Standards: Math Practices Grades K-12)
- Science & Engineering Practices (Next Generation Science Standards: Grades K-12)

raft resource area for teaching www.raft.net

Striped Puzzles

Fun to Make, More Challenging Than You Might Think





These quick, vertical puzzles are fun to make for students of all ages! They can be as easy or as challenging as your students want them to be, and they can be used for almost any subject, from problem solving to story telling and everything in between. Solving puzzles of any type enhances logical thinking and problem solving skills, both needed for mathematical and scientific thought processes.

Assembly (Creating the Puzzles)

1. Align the sticks together onto a flat surface to create a drawing surface. (Note: Using 5 or 6 tongue depressors is more appropriate for younger students, while using many smaller craft sticks is more challenging for older students.)
2. Tape the sticks together while drawing onto the sticks.
3. Direct students to draw scenes onto the sticks using pens and/or pencils. The drawing can be as simple or as complex as the students wish, and pictures can be drawn horizontally or vertically.
4. Remove the tape from the sticks.

To Do and Notice

1. Instruct students to rearrange the pieces and then solve their own puzzles by recreating their pictures.

Taking it Further

- For students ready for the extra challenge, instruct students to create drawing on each side of the stick drawing surface, making a 2-sided puzzle.
- Mix 2, 3, or even several puzzles together! With many puzzles together, students could try to solve the puzzles as a group to encourage teamwork.
- Have the students switch their puzzles with other students and solve them.
- Take out one of the pieces. Ask students, "What is missing?"
- Ask questions to enhance problem solving thought processes, such as: "How do start?"; "Do you see 2 pieces that fit together?"; or "What do you think the picture will look like?"

Web Resources (Visit www.raft.net/raft-idea?isid=420 for more resources!)

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