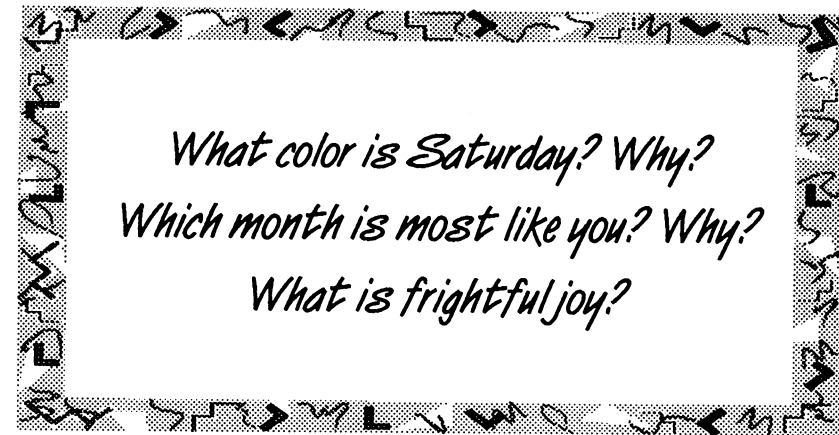




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Introduction

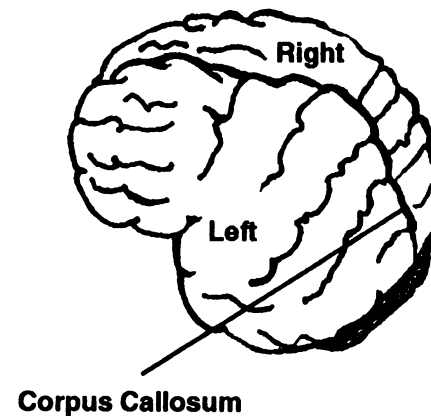


These questions represent one of the most exciting, creative, and versatile strategies for helping students develop their creativity. The questions are part of a model that uses synectics to develop higher-level thinking skills. The word *synectics* comes from the Greek and means to join different or irrelevant ideas using similes, metaphors, and analogies. The conscious use of analogies and metaphors helps students use the knowledge they already have to absorb and synthesize new information or to see familiar ideas in new ways. Through visualization strategies students gain new perspectives about their internal and external worlds. The model encourages students to play with words and ideas in inventive and imaginative ways.



Mere critical thinking without the search for new patterns is sterile and doomed. To solve complex problems in changing circumstances requires the activity of both cerebral hemispheres: the path to the future lies through the corpus callosum.

—Carl Sagan



The model is based on one developed by William J. J. Gordon and was first used in industry for group problem solving or “think tanks”; later, educators began to experiment with it. Many teachers and leaders saw that synectics could be used to develop a group’s, as well as an individual’s, creativity. From the primary year levels to adult groups, students from all ability levels can successfully use synectics to solve problems and increase creativity. You can personalize learning by eliciting from students their own metaphors and analogies. The use of synectics encourages both the cognitive aspects of creativity (fluency, flexibility, originality, and elaboration) and the affective aspects (risk taking, curiosity, imagination, and complexity). These techniques free students to go beyond the literal level of learning and reach toward a higher plane of understanding. Cooperative learning techniques provide one way to approach group creative thinking.



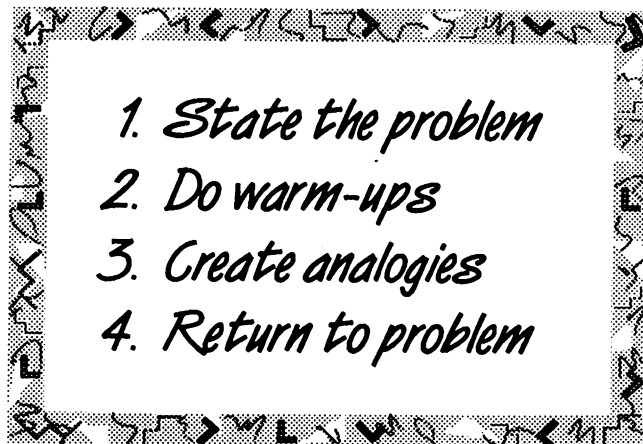
**promote
risk
taking**

Setting the Climate for Creativity

Teachers need to set a climate for creative thinking. The lessons focus on flexible thinking, fluency of ideas, original thinking, and elaboration of ideas. Following are some guidelines you can use to promote creative responses from students:

- Share objectives and rules for the lesson with the students. Establish from the beginning that there are no right or wrong answers and promote respect for each idea contributed.
- Gather the class together to help them focus on the topic. Physical proximity is important, especially for young students.
- Let students know you expect them to use their imaginations to answer the open-ended questions.

1. Stages of the Model

- 
1. *State the problem*
 2. *Do warm-ups*
 3. *Create analogies*
 4. *Return to problem*

What Is the Model?

The activities begin with a statement of the problem or topic. Stretching exercises, or mental warm-ups, come next. These exercises are followed by the three phases of the model: direct analogy, personal analogy, and symbolic analogy. Each phase creates more distance from the original problem; after the final phase, you return to the problem with new insights.