Critical Thinking and Captive Wildlife

by Patty A. Finch

Precision Thinking

Intermediate and Junior High School Grades

Ted Feety, Jr. defines critical thinking as "the judging of statements based on acceptable standards." Precision thinking is the term we have coined for the teaching technique that enables students to practice critical thinking as they learn at least one technique to aid them in such thinking. Precision thinking is a teaching tool we are sure you will want to use again and again!

To acquaint you with precision thinking, we will take you step-by-step through two activities especially designed for this unit's "Kind News Feature" on appropriate and inappropriate pets.

The first activity, students design rules to enable them to classify animals as domestic or wild. Intermediate and junior high students usually have a commonsense but sometimes inaccurate understanding of wild and domestic. This activity will enable students to clarify their thinking, laying a firm foundation for a point for thought.

I. Nomination

• Activity: To begin our unit, put the following on the chalkboard:

Wild

1. 2. 3. 4.

Domestic

1. 2. 3. 4.

Rules

1. 2. 3. 4.

Tell students they will be listing animals under the appropriate heading of domestic or wild. Do not define the terms. They will also be designing rules to explain how one can tell if an animal is wild or domestic. Their rules should be so good that anyone, even someone from outer space, could correctly classify animals just by following their rules.

Ask students each to think of an animal that they know to be domestic or wild. Ask a student who is sure of the classification of an animal to come to the chalkboard and write the name of the animal under the appropriate heading.

After the first student has correctly listed his or her animal name, ask the student to state a rule about characterizing animals as wild or domestic. (E.g., "The animal is wild if people don't have to feed it.") Whether correct or incorrect, write the rule on the chalkboard. Stress that the composing of rules is a brainstorming task. Revisions are to be expected and are part of the fun. Usually no one's rule will be perfect as written the first time. The goal is not to give a perfect rule, but to create a starting point for thought. Usually a series of rules is necessary to adequately define the terms in question; but each rule alone should state one accurate criterion to use in determining classification as wild or domestic.

Continue calling on students to come to the chalkboard to list an animal as domestic or wild. Debates will arise as to whether or not animals are listed under the correct categories. After allowing for some discussion, your role (as the resident biologist) is to correctly classify the animals. The students must accept the correct classifications and make their rules fit such classifications. (Note: students may be surprised to learn that parrots, saltwater tropical fish, pet raccoons, and elephants in circuses are all still considered wild. Stress that even though an animal may be used to being around people or is sold as a pet, it may still in fact be wild. See our definition for clarification. Also note that an animal may be wild in some cases (mice in a field) and domestic in other cases (mice that have been bred by people over a long period of time for certain traits).

As each student adds an animal correctly to the domestic or wild list, have him or her then modify the existing rules for classifying animals or add a new one. Anytime a new rule is added, ask students if it contradicts any existing rules and if so, what changes need to be made.

As students become more adept at the task, challenge them to think of animals that indicate that a rule may need more revision. Make revisions contingent upon the provision of such examples. (E.g., "My animal is a trout. One of our rules states: 'Animals that are purposefully bred for human use as food are domestic.' But what about trout? Trout in fish hatcheries fit our rule, but aren't they wild, not domestic? We need to change our rule.")

After students are satisfied with their set of rules, see if you can think of any examples that will expose a flaw in their thinking. Explain to students that most people believe that wild animals do not make good pets. Ask youngsters to review their list of wild animals. Can students name some reasons that these animals might not make appropriate pets? What are some possible reasons people might give for wanting to keep these animals as pets anyway? Ask students to that in this unit, they will be learning about some of the problems associated with captive wild animals and will have an opportunity to formulate criteria for pet selection.

Follow with Activities 2 through 5, as suggested in the "Kind News Feature."