In-Class Activity: Introduction to Dichotomous Keys

1. Display the shapes below for the students to see (draw on the white board, etc.).
2. Ask a student volunteer to pick a shape but not to tell you.
3. Use the following three questions to figure out which shape the student has chosen:
   A. Does your shape have a square around the outside?
   B. Does your shape have a dot in the middle?
   C. * the third question depends on the answers to questions A and B, but there should only be two possibilities left so the question should be obvious (example: is your shape a circle?).
4. Ask another student to pick a shape and not tell anyone, and then have another student ask the questions to figure out what shape it is. Repeat until you feel the students have grasped the concept.
5. This is an example of a dichotomous key, which utilize a series of questions with only two answers to select for one among many. This is what scientists use to identify organisms. Even though there are more than 750,000 different species of living thing on earth, this is a very effective system.