

Record Keeping in Science



I am constantly on a diet. Sound familiar? One of the usual diet tips found in many diet plans is “keep a log of everything you eat.” Keep a record? Why is this such a useful diet tip? First, there is accountability. If you write it, you can’t ignore it. Just because you ate those pepperoni slices while standing with the refrigerator door opened, doesn’t mean it

shouldn’t count. Second, if you write it, you may discover patterns. After examining your eating records, you may discover that you need a midmorning snack to avoid a midafternoon binge of Snickers bars chased with a can of cola. Finally, you might want to share (or not) your record with someone else.

Record keeping in science has the same basic purposes. Records show others what data you have collected and under what conditions. Without records, patterns escape notice. Records also provide accountability and allow someone else to replicate or analyze your methods. Record keeping is fundamental to doing science.

In “Just Like Real Scientists” (p. 20), students get to learn about a real scientist, Jane Goodall, and how she kept records of chimp behavior. Jane Goodall was an inspiration to me as a high school and college student. Her work was one of my primary motivations to study science. It led me to study primatology in college. One of my first challenges was to try to create behavior records of a colony of patas monkeys. What is important to note? What isn’t? There was no sinking feeling like the feeling I wished I had written something down but didn’t. Many elementary students lack the opportunity to record real data in the classroom. They don’t experience the excitement, frustration, and sometimes ambiguity, of this fundamental skill in science. In this article, students can see what behavioral record-keeping looks like and then practice it themselves.

Sometimes, records aren’t words. Many times they are images. In our world of changing technology, photography has become cheaper and more immediate (no waiting to finish a roll to send it to the developer). “A Picture Is Worth a Thousand Words” (p. 36) describes how to use digital photography to improve learning outcomes from field trips.

Field trips to zoos and museums can often lack purpose and can quickly degenerate into an aerobic activity more than a learning activity. The author has students ask questions before a zoo trip and then document the answers with digital cameras. Students are both motivated and equipped to make sense out of their excursion.

Students can sometimes be reluctant to record their observations. They are often more interested in “doing” an investigation than in recording it. In “First-Grade Record Keepers” (p. 31), young students are inspired by watching the life cycle of a salamander to record their observations. The students learned the content about life cycles as well as the value for keeping records.

In “An O-“fish” ial Research Project” (p. 40), the teacher takes a personal interest—fishing—and translates that into a chance for students to research and record information about local animals. While you may lack access to the marine animals around the Gulf, you could obviously substitute local animals. This would help students develop an appreciation for their environment as well as the need to record, summarize, and present research.

Record keeping is also one of the skills that we need as educators. We document learning and behaviors every day. “Practitioner Research Success” (p. 25) shows how teachers can generate questions and collect and record data to improve instruction.

With a new year just under way, there’s no better time than now to get students’ and your own record-keeping skills in shape. Use this issue as inspiration as you practice and develop this fundamental science skill. Happy New Year!

A handwritten signature in black ink that reads "Chris Thana".

Coming Next Issue

Start thinking Plants! Next issue, we examine some of the wonderful behaviors of plants.

- Honeybees, Butterflies, and Ladybugs: Partners to Plants
- Plants on the Move
- Creating a Schoolyard Mini-Garden