**Measuring grow beasts growing and shrinking in water**

**Website: <http://growbeast.wikispaces.com>**

**The plan:**

**Day 1:** Setting up the experiment. Time: 45 minutes to an hour. In partners, students name their dinosaur and draw it. Teacher models measurement and students measure length using your chosen units (such as inches, paperclips and centimeters). Students discuss their questions and hypotheses about how large the dinosaur will grow. We suggest having a class scientific journal on chart paper with the question, hypothesis on it. Introduce vocabulary (such as baseline data, hypothesis, unit, inches, centimeters, paper clip). We suggest starting on a Wednesday.

**Day 2-Day 5:** Growing the dinosaur. Time: 30 minutes. Teacher models and students measure and discuss observations. Suggest recording observations on class scientific journal.

**Day 6-Day 9:** Shrinking the dinosaurs. Time: 30 minutes. Leave them in the cup. Teacher model, students measure and discuss observations.

**Possible Day 10:** Have students write about the experiment, observations and conclusions. Time: 1 hour.

**Materials:** Enough grow beasts for pairs of students to have one, plus one for modeling, large clear plastic cups, Sharpie to write names on the cups, location in room to store them, rulers, giant paperclips (they are 1 cm in size), paper towels, student recording sheets, large chart paper and pens. Document camera.

**Possible extensions:**

* Growing dinosaurs in different liquids, chosen by students in groups: this takes 1 day (30-45 minutes to plan) and 5 school days (30 minutes) to grow. This is a great opportunity to discuss scientific controls.
* Growing a previously-grown dinosaur: this would take 5 school days just to grow, if started on a Wednesday (30 minutes a day).
* Temperature: this would take 1 day to plan (30 minutes) and 5 school days to grow (30 minutes a day). This is a great opportunity to discuss scientific controls.

**Our advice:** Be flexible. Avoid telling kids why something is happening and let them discover for themselves, even if it takes days for them to figure it out.