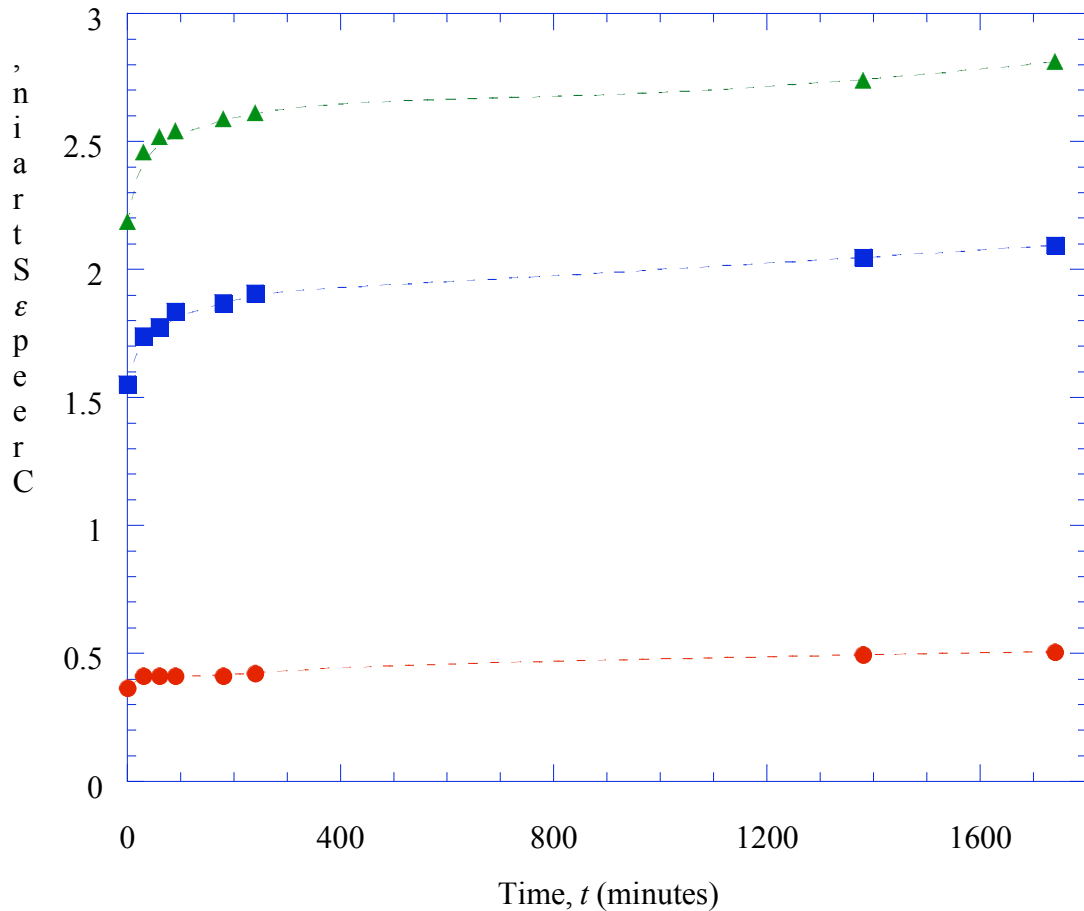


Teachers' Guide:

While we have done our best to guide you through every step of the experiment, we suggest you try to follow the guide by yourself to see which points your students might need clarification on, as well to get a sense of which parts of the experiment are more difficult.

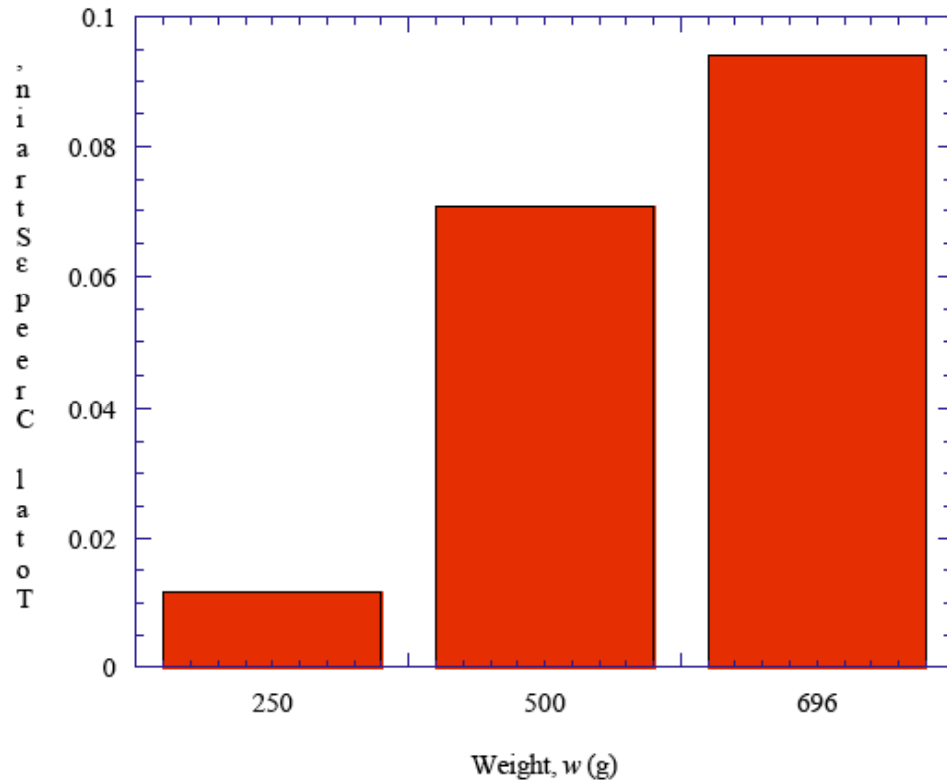
The experiment can be run in a variety of ways. Students can each test one variable and share data, or each group can test both types of rubber bands and the various weights.

Example Linear Graph:



Example data plot of creep strain versus time for the rubber bands stretched by varying weights. The red circles indicate 250g, the blue squares indicate 500g, and the green triangles indicate 696g over a 24 hour period. (Note: the dashed lines are not curve fits.)

Example Bar Graph



Answers to Analysis Questions:

1. Smallest width.
2. Largest weight or force applied°.
3. Results will vary.
4. There are numerous sources of error associated with this experiment. The following is a short list of errors which may affect the experimental data:
 - Not every rubber band is the same
 - Prior use of rubber band is an issue including any stretching by students prior to start of experiment
 - Temperature and humidity of the room can affect the fatigue
 - Metric ruler error
 - Human error
5. Results will vary.