

SCALING

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Physical Setting/Physics

**Standard 1, M 1.1, SI 2.1, SI 3.2
Standard 6, Key Ideas 3.1 and 3.2**

ABSTRACT: Students will make new standard units of length (1 Hershey's mini candy bar), mass (1 standard paper clip), and volume (1 B-B and 1 gumball). Those units will be used to estimate measurements of objects both too large and too small to measure. Students will estimate mks units and convert to values of their new standard units.

EQUIPMENT NEEDED PER GROUP:

- 500-ml beaker**
- 10-ml graduated cylinder**
- 50-g of BBs**
- 500-ml of gumballs or other spherical objects**
- 5 Hershey's mini-candy bars**
- 15-cm metric ruler**
- 30 standard sized paper clips**
- 1 Triple-beam balance or digital scale**
- 1 scientific calculator**
- 1 plastic container for BBs and gumballs**

TIME REQUIREMENT: Two-40 minute class periods. One period for the lab, and one for the extension questions.

SUGGESTED GROUP SIZE: 2-3 students per group

DATE: 7/15/2002