

Consolidated Unit Benchmarks Coded by Report Card Descriptor

4th Grade Matter Unit

Descriptor: Understands science concepts

- Knows that results of similar scientific investigations seldom turn out exactly the same. Sometimes this is because of unexpected differences in the things being investigated, sometimes because of unrealized differences in the methods used or in the circumstances in which the investigation is carried out and sometimes just because of uncertainties in observations. It is not always easy to tell which.
- Knows that when a new material is made by combining two or more materials, it has properties that are different from the original materials. For that reason, a lot of different materials can be made from a small number of basic kinds of materials.
- Knows that when warmer things are put with cooler ones, the warm ones lose heat and the cool ones gain it until they are all at the same temperature.
- Knows that heating and cooling cause changes in the properties of materials.

Descriptor: Effectively uses science process skills

- Able to keep records of their investigations and observations and does not change the records later.
- Able to keep a notebook that describes observations made, carefully distinguishes actual observations from ideas and speculations about what was observed, and is understandable weeks or months later.
- Able to measure and mix dry and liquid materials in prescribed amounts, exercising reasonable safety [and demonstrating correct lab techniques].
- Able to use analog and digital meters on instruments used to make direct measurements of temperature and choose appropriate units for reporting various magnitudes.
- Able to use numerical data in describing objects and events.
- Able to organize information in simple tables and graphs and identify relationship they reveal.
- Able to independently design and conduct experiments.

Descriptor: Actively contributes to one's own learning and the learning community during science

- Willing to share reasons for findings and consider reasons suggested by others.
- Shares and takes turn in teams.
- Listens when others talk.
- Asks questions to help understand someone else's ideas.
- Willing to discuss multiple ideas before selecting one.
- Refrains from putting-down classmates.
- Works collaboratively and responsibly with team members.