

Eighth Grade Science Learning Targets 2015-2016 REGIONAL SCHOOL UNIT #22

RSU #22 is committed to the optimal learning of all students. As RSU #22 continues to move towards meeting 2018 graduation expectations, we have elected to look at proficiency learning targets K-12. Rather than only the high school being responsible to report student proficiency, we have created some initial targets at each grade level. We know that some children may be able to meet standards beyond the targets listed at the grade level. We also know that some students will need more time to meet the expectations.

Standards Scored on the Report Card:

Energy: Waves

- Understands the similarities and differences between the motion of different types of waves
- Understands the motion of different types of waves
- Understands how energy is transmitted through waves
- Understands the relationship between wavelength, frequency, amplitude, wave velocity, and energy

Physical Energy: Heat Energy

- Understands how conduction, convection, and radiation describe transfer of heat energy in a variety of systems (house, atmosphere)
- Understands some materials transfer heat well and some transfer heat poorly (conductors and insulators)

Phys. Science: Forces & Motion

- Understands the greater the force, the greater the change in motion and when there is no force applied, motion does not change (inertia)
- Understands that changes in speed or direction are caused by forces
- Understands an unbalanced force acting upon an object changes its speed or direction of motion or both
- Understands the role of friction in motion
- Understands that the motion of an object is always judged with respect to some other object or point
- Understands how to use speed to predict distance traveled and time of travels.
- Understands how forces can be exerted by contact, gravity, magnets, and electrically charged materials
- Understands the relationship between force, mass, and acceleration.