

**RTR Elementary School -2016**  
**Grade 3 Science Standard**

**The Nature and Science of Engineering**

1. Students will be able to provide evidence to support claims other than saying “Everyone knows that,” or “I just know,” and question such reasons when given by others.
2. Students will be able to generate questions that can be answered when scientific knowledge is combined with knowledge gained from their own observations or investigations.
3. Students will be able to recognize that when a science investigation is done the way it was done before, even in a different place, a similar result is expected.
4. Students will be able to maintain a record of observations, procedures and explanations, being careful to distinguish between actual observations and ideas about what was observed.
5. Students will be able to construct reasonable explanations based on evidence collected from observations or experiments.
6. Students will be able to understand that everybody can use evidence to learn about the natural world, identify patterns in nature, and develop tools.
7. Students will be able to recognize that the practice of science and /or engineering involves many different kinds of work and engages men and women of all ages and backgrounds.
8. Students will be able to use tools, including rulers, thermometers, magnifiers and simple balances, to improve observations and keep a record of the observations made.

**Physical Science**

1. Students will be able to explain the relationship between the pitch of sound, the rate of vibration of the source and factors that affect pitch.
2. Students will be able to explain how shadows form and can change in various ways.
3. Students will be able to describe how light travels in a straight line until it is absorbed, redirected, reflected or allowed to pass through an object.

**Earth and Space Science**

1. Students will be able to observe and describe the daily and seasonal changes in the position of the sun and compare observations.
2. Students will be able to recognize the pattern of apparent changes in the moon’s shape and position.
3. Students will be able to demonstrate how a large light source at a great distance looks like a small light that is much closer.
4. Students will be able to recognize that the Earth is one of several planets that orbit the sun, and that the moon orbits Earth.

**Life Science**

1. Students will be able to compare how the different structures of plants and animals serve various functions of growth, survival and reproduction.
2. Students will be able to identify common groups of plants and animals using observable physical characteristics, structures and behaviors.
3. Students will be able to give examples of likenesses between adults and offspring in plants and animals that can be inherited or acquired.
4. Students will be able to give examples of differences among individuals that can sometimes give an individual an advantage in survival and reproduction.