

The Wonderful World of Machines

THIRD GRADE ASSESSMENT

The Central Bucks School District assesses student performance in numerous ways. Teachers evaluate daily work, projects, and tests at various times to assess student progress. District and National tests are conducted to measure student performance against established norms. A district initiative to develop “authentic assessments” at four transitional points in each student’s school career began with the implementation of a 6th Grade Assessment in 1993. The Middle Schools initiated the use of the 9th Grade Assessment two years later. The Central Bucks Strategic Plan called for the implementation of a 3rd Grade Assessment and 12th Grade Assessment in 1999.

A committee of 3rd Grade teachers and District Administrators were charged with the responsibility of developing the 3rd Grade Assessment. The assessment, which focuses on science skills, was piloted at each elementary school during the early spring of 1998.

The *Wonderful World of Machines* was developed to provide students, parents, and teachers with meaningful information about each child’s:

- **knowledge of state and national science standards.**

- ◆ identify the six simple machines and explain how they make work easier
- ◆ explain that work is a push or pull "force" that results in an object moving a distance
- ◆ describe how friction causes objects to stop or slow down
- ◆ identify the simple machines that are in compound machines
- ◆ identify simple and compound machines in everyday life

- **ability to organize and present information to a group**

- **ability to collaborate with classmates to achieve a specific goal**

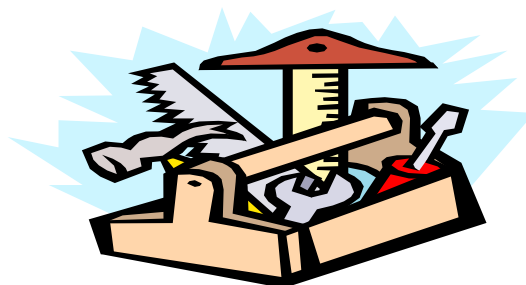
- **ability to use the computer to create**

The following questions and answers will address the most commonly asked questions about this assessment.

When will the assessment take place and how long will it last?

Each school varies as to when they administer the Simple Machine’s Assessment. The assessment will follow the teaching of the Simple Machines science unit.

The assessment is completed entirely in school and will occur over a two or three day period.



Will the assessment be difficult?

The name of the assessment is intended to convey our goal that the Third Grade Assessment be a fun and exciting activity for the children while providing us with important information. Children will complete three tasks over two consecutive school days.

The first two tasks are done individually and will assess the children's knowledge of basic math and essential knowledge of the Simple Machine Science Unit. Each task is challenging but designed to be **fun!**

The third and final task is a small group activity. Each team will build a compound machine from a vast supply of common materials. Each machine will include at least 2 simple machines. The teams will make a brief (1-2 minute) presentation to the class to explain their creation.

How will the children be assessed?

Children will be assessed by their teacher in four areas:

- **Computer Skills**
- **Math Knowledge**
- **Presentation Skills**
- **Collaborative Skills**

Each area listed above will be measured according to a Rubric ranking the children at one of four levels of performance for each skill area:

- **Advanced**
- **Proficient**
- **Basic**
- **Below basic**

A graph depicting the results will be sent home to parents following the assessment.

How can I help prepare my child for the assessment?

Preparation for the assessment will take place primarily in class. Parents can help their children by reviewing the laboratory write-ups from class. These laboratory write-ups highlight important concepts in the unit. Parents can also help by encouraging their child to do their best in science class and during the Simple Machine's science unit.

Each teacher will send home a list of common supplies needed for the assessment. Parents can help by collecting these supplies and sending them to school. (Examples: buttons, paper towel tubes). Uncommon items (small cable rolls, wood scraps, or anything else you think may be helpful and fun for the students to use) are also very helpful but please talk with your child's teacher before sending them to school.

Additional Questions?

Please contact your child's teacher or principal.

