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How This Book Is Organised *(cont.)*



Unit Vocabulary

In this section, one or two pages of vocabulary words for the unit are introduced and defined. In addition, a vocabulary-word crossword puzzle is included in each unit.



Assessments

The assessments are designed so that the same content is being tested regardless of the format of the test. Each unit in this book provides these five assessments:

- Multiple Choice
- Sentence Completion
- True-False
- Matching
- Graphic

Modifying the Assessments: You may choose to modify any of these assessments by trying one of the following:

- Give students more time to take the tests.
- Allow students to use the briefs to help answer the questions.
- Audio-record the tests or read the questions aloud to students.
- Allow students to answer the questions orally.

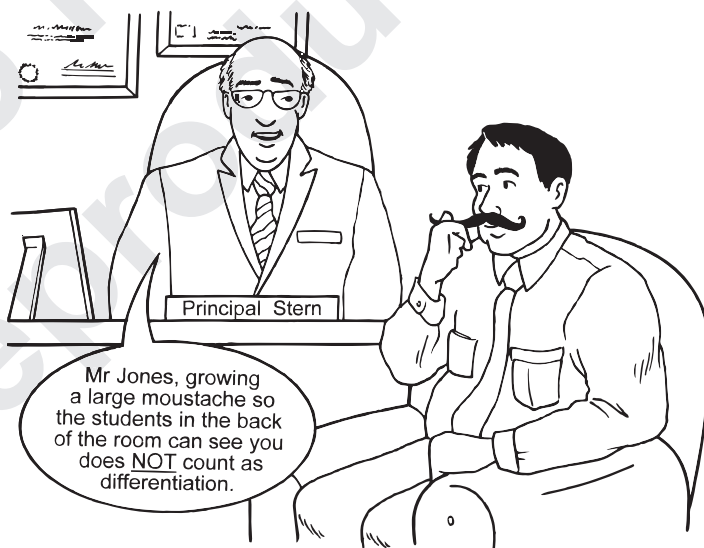
Portfolio Assessment: In addition to one of the traditional assessments, you may also use a portfolio type of assessment. Select five pieces of work (student activities) that the student has completed for the unit. Alternately, you may ask students to select five of their best pieces of work from the unit.



Student Briefs

Each unit provides several student briefs. These briefs contain the core content. They are written with readability in mind, meaning that they use various fonts, bulleted lists and spacing strategies in order to help struggling readers access the content.

It is important to remember that these briefs are only intended to provide students with a very basic, bare-bones presentation of the content. It will be up to you to provide the broader context and to fill in the details. These briefs are also designed to be used alongside your science textbook.



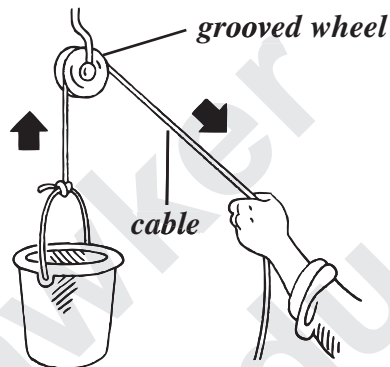
Forces and Motion

Brief #4: Simple Machines

Focus

There are six types of simple machines.

A simple machine is a device that makes work easier. These types of machines don't have very many parts, but they can help us push, pull and lift heavy loads. Simple machines can help us move things from one place to another.



Vocabulary

1. pulley
2. lever
3. fulcrum
4. inclined plane
5. wedge
6. wheel and axle
7. screw



Pulley

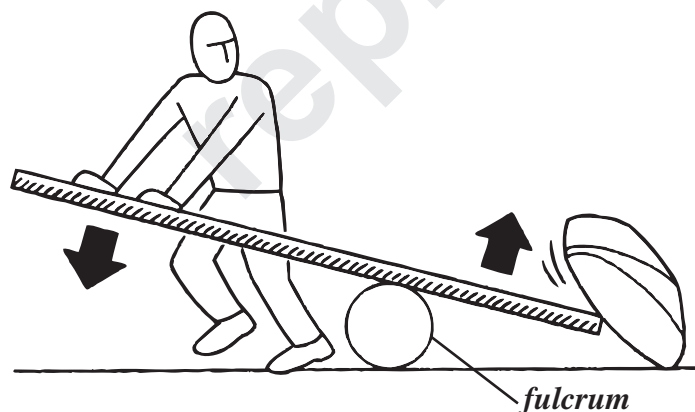
A pulley is a simple machine that helps us to lift heavy loads. **A pulley is made from a rope or cable and a grooved wheel.** (See the illustration above.) A pulley works by changing the direction of the force needed to do the work of moving a heavy object so that the amount of force required is lessened.



Lever

A lever is a simple machine that uses a pivot called a fulcrum and a stiff bar. A lever can also help to lift a heavy load by changing the direction of the force that is needed to do work.

If a heavy object is placed on one end of the stiff bar and force is applied to the opposite end of the bar, the load will rise. How much force is needed to lift an object using a lever depends on the distance of the fulcrum from the person doing the work.



Forces and Motion

Sentence-Completion Assessment

Name: _____ Date: _____

Directions: Read each statement carefully. Fill in the word or words that best complete the sentence.

1. _____ measures how fast an object moves over a period of time.
2. If a train travels 800 kmph in 5 hours its rate of speed is _____.
3. "An aeroplane is travelling 600 km per hour west" is a description of its _____.
4. A _____ is something that pushes and/or pulls.
5. A natural force that pulls only is called _____.
6. The magnitude of a gravitational force depends on the object's _____ and _____ from another object.
7. Opposite poles of a magnet exert a force that _____.
8. The loss or gain of electrons produces the force of _____.
9. _____ slows an object down or causes it to stop.
10. The amount of friction depends on the _____, speed and material of the object.
11. In order for work to be done, an object must _____.
12. The formula to calculate work is _____ x _____ equals work.

