

BEST MATERIALS

- MATERIALS -



CURRICULUM AREA: TECHNOLOGY & ENVIRONMENT

TARGET YEAR LEVEL/S: Years 6 – 7

CLASS TIME: 60 minutes

LESSON BACKGROUND

Manufacturers spend a lot of time testing and researching when figuring out what is the best material for use with their products. The same idea goes for the equipment that Chris & Clark purchased for their expedition. In this lesson, students will take the example of Chris & Clark's TENT to investigate testing procedures for figuring out the best tent material for the expedition.

OUTCOMES

- Understands that properties of materials need to be related to the requirements of their own design, considering aesthetic, functional and environmental effects.
- Selects and safely uses techniques and equipment for working materials to the aesthetic, functional and environmental requirements of own design.

PREPARATION

- A variety of materials (ranging from simple paper, to other materials such as cotton and lycra)
- A variety of testing products (fan for wind, freezer for coldness, container of water, stones for wear... etc)
- Lined paper for recording

STUDENT ACTIVITY

- 1) Discuss with students what manufacturers, such as TARGET, do in order to make sure their products last the distance. Brainstorm the ways of testing (water, heat, etc)
- 2) Relate this to the tents that C&C will be using on their expedition. What will these materials need to withstand?
- 3) Ask students to get into small groups of 3. Present students with a variety of materials. Using their own testing procedures, ask them to test each of the materials in a variety of ways, and record their results.

- 4) Once this is done, ask students to explain which of the materials tested would be the best to use as the tent material for the 1000hourday expedition.

EXTENSION

- Students can go through testing procedures for other equipment that Chris & Clark are taking on their expedition.
- Students can examine the most reliable and appropriate materials for the PAC (See PAC Blueprints lesson)