
SYNOPSIS:

As human stand-ins, dummies and their mobile counterparts robots, have been sparing us risk to life and limb and saving our lives for decades. Perhaps the best known examples of these are crash test dummies, which have allowed automotive engineers to analyze what happens to the human body in collisions. The information obtained in these tests has helped them design safety advances like seat belts, child car seats and air bags.

CURRICULUM UNITS:

General Science
Health & Safety
Physical Science

CAREER OPPORTUNITIES:

Aerospace Engineer
Automotive Engineer
Computer Programmer
Health Services
Paramedic
Systems Analyst
Technician
Test Engineer

PROGRAM OVERVIEW:

This program shows the role of dummies in safety and product testing and in rescue and medical emergency training. It also explains the differences between dummies and robots as it shows robots in manufacturing facilities, performing inspections in hard-to-reach places and handling hazardous materials.

ISSUES AND CRITICAL THINKING:

- 1) After showing the program, ask your students the following questions:
 - a) What are some ways that test dummies have made life safer for us?
 - b) What is the difference between a passive test dummy and a smart dummy?
 - c) Why are CPR dummies made in different sizes?
 - d) In what ways are robots different from dummies?
 - e) Why would a robot be used to perform a job a person can do?

- 2) Have students recall robots they have seen on television or in movies and those they saw in this program.

AEROSPACE- Refers to air (the atmosphere of Earth) and the space beyond in which vehicles such as air-planes and missiles fly.

CORE TEMPERATURE- The internal temperature of the human body as opposed to the surface temperature.

CPR (CARDIOPULMONARY RESUSCITATION)- A life saving procedure that involves heart massage and blowing air into the lungs of a person who has stopped breathing.

PASSIVE- Receiving or is subjected to an action without responding, or initiating an action in response.

SENSORS- For the purpose of this program, electronic devices for receiving and recording stimuli or signals.

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Show Me Science

ENGINEERING: DUMMY
& ROBOT HEROES



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