

Introduction to Technology

Summary

Standard 1 --Know and appreciate the importance of technology and how it impacts our lives.

Objectives: A. Define technology in terms of the human process that satisfies needs and extends human capability. B. Describe the system model by identifying resources, describing what is processed and identifying outputs and the role of feedback in the system. C. Understand trade-offs in terms of the outputs of technological systems. D. Discuss the relationships of technology and science. E. Describe efficient uses of resources (i.e., the 4 R's -- reduce, recycle, reuse, renew). F. Describe both the positive and negative impacts of technology on our society. For example, discuss how technology has changed the society, culture, economy, medicine, education, the environment, space exploration and recreation. G. Discuss the influence of technology on history such as the evolution of tools as an extension of human capability. H. Identify common characteristics of current technologies (e.g., digital electronics) and discuss how they have impacted and changed our lives as consumers. I. Identify human-made and natural resources used in modern technology.

Time Frame

1 class periods of 45 minutes each

Group Size

Large Groups

Life Skills

Thinking & Reasoning, Communication, Social & Civic Responsibility, Employability

Materials

candy bars; gum, tables in circle; student resources (backpacks, shoelaces, belts, jackets, etc.); design loop overhead or visual; technology pictures; video package; video camera; video tape; plastic milk cartons technology index cards; technology word hunt; science vs. technology /x-word puzzle; technology timeline brainstorm

Background for Teachers

This is used as the introductory unit in Foundations of Technology.

Instructional Procedures

Place tables in a circle with students sitting on the outside of the circle. Put candy and gum in the center of the circle. Explain that the goal (design brief) of the activity is to get the candy. Then explain the rules (specifications) of the activity. 1)Students may use only the things that they brought with them to class to help them reach the candy. 2)Students' arms, legs and body must stay behind the front of the tables. 3)Students may not move the tables to reach the candy. 4)Students will have 10 minutes to assemble and practice before the candy will be placed in the circle. Explain the activity to the students. Put a design brief on the board for students to see. This will help students remember what is legal. Give students 10 minutes to get ready to get the candy. Teacher should video tape the students during this part of the activity. Record attempts and comments that students make during this time. Place the candy in the middle of the circle of tables. Scatter the candy out so that all students will have an opportunity to get some. Tell the students to begin and video tape their attempts. Teacher should not be in the center area. If students reach into the center area, remind them and then disqualify them. If apparatus falls into the area, they must leave it until all the activity is

over. When the candy has been removed from the center of the circle, tell students to put their things back together. Many of them will need to lace shoes, put belts and other things back together. During this time, video tape the students. Interview them. Ask them what they did, what they used, if they were successful, and if they thought it was worth it.

Authors

[DANNA DUNCAN](#)