SESA TECH CHALLENGE 2

"Survivor Tech Challenge"

OVERVIEW: This presentation consists of a challenge in which students must work together to create a device to reach a raft floating in the water using only the materials provided

OBJECTIVE: To encourage higher level thinking skills, realize the importance of creativity and technology, and develop the attitude of being a team player.

SCIENCE INQUIRY AND APPLICATIONS:

During the years of PreK to grade 4, all students must develop the ability to:

*Plan and conduct simple investigations

*Communicate about observations, investigations, and explanations

*Review and ask questions about the observations and explanations of others.

During the years of 5-8, all students must develop the ability to:

*Design and conduct a scientific investigation

*Develop descriptions, models, explanations, and predictions

*Think critically and logically to connect evidence and explanations

GRADE LEVEL: 3-8

TIME: 45-50 minutes

VOCABULARY: Technology, challenge, competition, momentum

MATERIALS: Per group of 5-6 students

Large Envelope Containing:

1 piece of newspaper

1 piece of elastic

Dental floss

Roll of tape

Pencil

Scissors

Ruler

Shower curtain ring

Wire clothes hanger

Toothbrush

Misc item on person

OPTIONAL

Stopwatch

Masking Tape

DEVELOPED BY: BP New Zeeland

IMPORTANT:

Read all directions before proceeding

PROCEDURE:

1. Discuss the term technology. Technology is a scientific method of achieving a practical purpose. Technology provides objects necessary for human sustenance and comfort. Ask students to name examples of technology that we have become dependent on in everyday living. (Microwaves, cordless telephones, computers, video games, clothing, etc.)

2. Discuss the importance of teamwork. Today, the students are going to become teams of scientists who are working together to build a device to rescue a raft floating in the water.

3. Make students aware of several conditions before they begin working: A. The device must be portable and is not to be taped to the floor.

   B. The launcher cannot be thrown overhand. Only one person can throw the device.

4. Divide the students into groups of 4 to 6. Students will be given 20 minutes to build their devices. Encourage students to test their devices many times before the deadline.

5. As students work, circulate to each group to see how they are progressing. Give them several time reminders. (You have 10 working minutes, etc.)

6. When time is called, each group will take turns launching their device from a central location. The students will have one minute to try and rescue the raft from the water.

7. If time allowed, the students could get together and redesign their device. They will then have another minute to relaunch their device and attempt to rescue the raft.

CLOSURE:

1. Announce the "winning" team. Point out that we are all winners because we used valuable teamwork skills. Discuss what the students learned about the importance of teamwork.

2. Talk about how scientists have developed their problem solving skills and higher level thinking skills in order to be on the cutting edge of technology. Impress upon the students that every one of them has the capacity to become a scientist.

SESA SURVIVOR TECH CHALLENGE 2!

To build a device that can be thrown into water and rescue a raft floating on the water that contains a satellite telephone.

CONDITIONS:

1. The device must be portable and is not taped to the floor.
2. Students will be given 20 minutes to build their devices.
3. There will be 1 minute to launch their device as many times as possible.

SESA TECH CHALLENGE 2!

SUPPLY LIST:

Scissors

1 piece of elastic

dental floss

scotch tape

ruler

newspaper

shower curtain ring

pencil

Toothbrush

clothes hanger

misc. item on person