STUDENT LEARNING ACTIVITY
FOR
TECHNOLOGY EDUCATION

SYSTEM TITLE: COMMUNICATIONS

COURSE TITLE: COMMUNICATIONS/TRANSPORTATION - POWER & ENERGY
GRADE 7 and or 8

CONCEPT: INTRODUCTION

ACTIVITY TITLE: WHAT IS COMMUNICATIONS? + PICTOGRAMS

REQUIRED NUMBER OF CLASS PERIODS: Three

INTRODUCTION: Communication is the transfer of information with understanding from one individual to another. It involves speaking, writing, gestures, and graphics. Signs, pictures, and even music are considered communication.

Communication involves a sender (communicator), and a receiver (audience). This audience may be a single person with whom we are communicating, or it may be the millions of people watching TV programs, reading newspapers or magazines, or listening to radios. Mass communication is the term used to describe the sharing of information and impressions with large groups of people.

OBJECTIVES: THE STUDENT WILL:

1. Develop a message using only pictures
2. Experience difficulties trying to deliver a message without words
3. Decode pictograms

COMMUNICATIONS: WHAT IS IT?

An Introduction

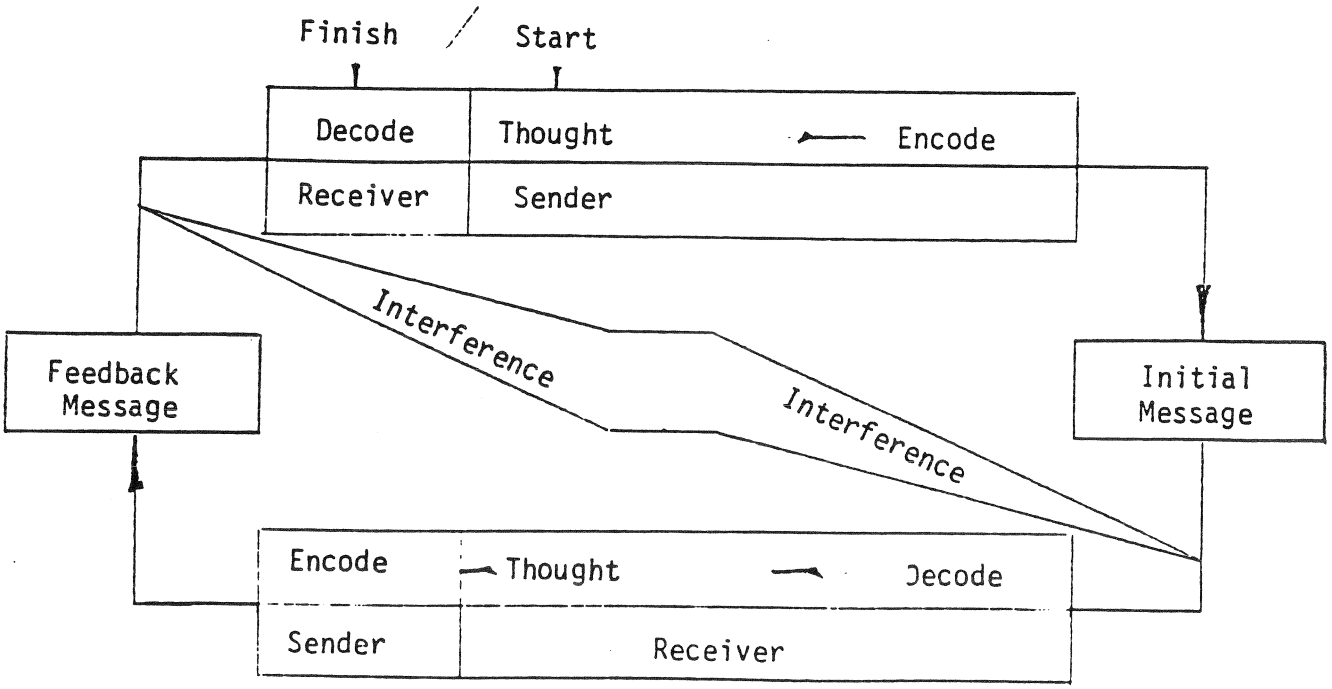
Communication, in its most basic form, is the exchange of ideas and information between humans and/or machines, (human to human, human and machine, or machine to machine) and also between animals. Animals? Yes, animals.

Animals communicate through sounds and actions. Whether it be the mating call and dance of a loon on a Wisconsin lake or the high-frequency whine of a whale in the ocean, animals do communicate in a very, very basic form. But just what is meant by communicating?

As earlier stated, communication is the process used to exchange information. Exchange is the key word here. In order for communication to fully work, an idea must first be formulated by the person wishing to send the message (or idea). This person is called the sender.

In order for the sender to send his/her message, he/she must decide how the message is to be sent. Three very basic ways of sending messages are to either speak, write, or gesture. No matter how the message is finally sent, it must be encoded, that is, translated into verbal language or written words or gestures. This encoding allows the message to be conveyed in a form that hopefully will be understood by the receiver (the person/persons for whom the message was sent).

Once the message to be sent has been delivered to the receiver, the receiver must decode, that is, translate the message into his/her own thoughts. After decoding, the receiver provides the sender with feedback on the message. Feedback is, basically, a return message that states the initial message was understood or needs further clarification. Confused? Well, let's try to show it on a diagram and give a few examples.



Remember the key word from before? It was exchange. Exchange is best represented here by the feedback message. Take for instance the following:

Bob and Joe want to go to a ballgame. Bob calls Joe up on the phone to say that he will pick up Joe at 7:30. Joe is in a hurry to go somewhere when Bob calls and just says "OK" without thinking about what Bob said. Bob shows up at 7:30 and Joe says he's a half an hour late. What was the problem?

Basically, Joe was distracted by something else and did not provide the proper feedback. Bob thought Joe was agreeing to the 7:30 time and left it at that. Was the exchange of information complete? Did communication actually take place?

The Answers: Poor exchange and no communication. The Reason: Interference during the attempted communication. Remember, Joe was in a hurry and didn't process the information correctly.

Remember the loons earlier? Well, here's their story:

The male loon is ready to take a mate. Using the thoughts and instincts provided by nature, he calls to the female loons in the area. When one is in sight and returns the call, the dance of the loons begins and nature further takes its course. The loon, while being a simple creature when compared to man, issues a message and waits for the response. The response, or feedback, is received and decoded by the loon to mean things are progressing as should be. While very simple in form, communication has taken place here.

Machines, with their messages encoded in either binary or hexidecimal forms, send data back and forth at unbelieveable speeds. However, a wrong number in a program sends a wrong message and communications break down because of the lack of an exchange in correct information.

To sum it up in simple terms, communication is the exchange of information. Whether the message is spoken, gestured, printed, or machine transmitted, the receiver must have the same basic perceptual knowledge as the sender. That is, they either have to be able to hear, or see, or read in the same code as the sender.

Still confused? Go to the first activity, the Pictogram, and see if things get any clearer.

Key Terms:

Sender: Person or object initiating communication
Encode: Process of transmitting a thought or message. This is done by a sender
Decode: Process of receiving an encoded message and translating it into thoughts or ideas
Receiver: Person or object that a message or thought is intended for. Also decodes the message or thought
Feedback: Response from initial receiver to initial sender confirming or asking for clarification of message
Interference: Anything that blocks an exchange of communication

PROCEDURE: List steps and include working drawing

INFORMATION

Students will bring a magazine (or several, if they wish) to class from which they will cut out pictures to develop a pictogram. A pictogram is one of various methods that sender may use to transmit a message to a 10" x 15" sheet of poster board (chipboard works, too). After the message has been created and mounted to the board, the message should be written on the back. After completion, each student will hold up their poster in front of class for the others in the class to decode. This is an example of how man formulates ideas and messages and expresses them in symbol forms that can be understood by the receiver.

PROCEDURE:

1. Develop a pictogram (a message without words) for decoding by other students.
2. Students bring in magazines for ideas for picutres.
3. Arrange pictures (message) on chipboard.
4. Attach the pictures to chipboard with rubber cement or a glue stick.
5. Print the message on the back of the chipboard.
6. Show the pictogram to entire class for decoding.

Students may work alone or in small groups.

Have message idea approved by the instructor.

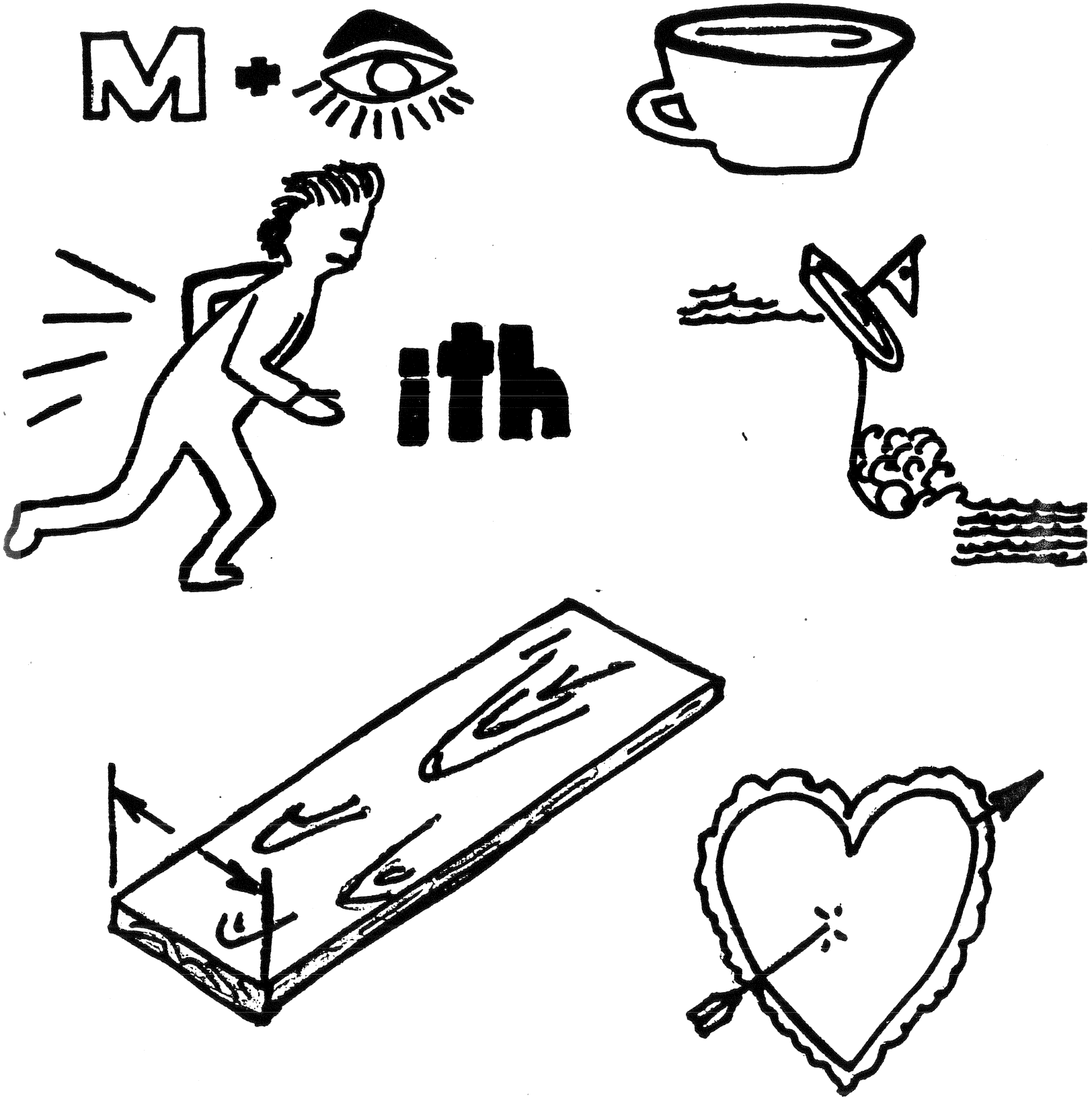
Look at the sample pictograms in this learning packet.

REFERENCE: INSTRUCTOR ORIGINAL

- Samples included with this unit

EVALUATION CRITERIA:

1. Students individually display their completed pictograms for decoding by other students.
2. Original creativity.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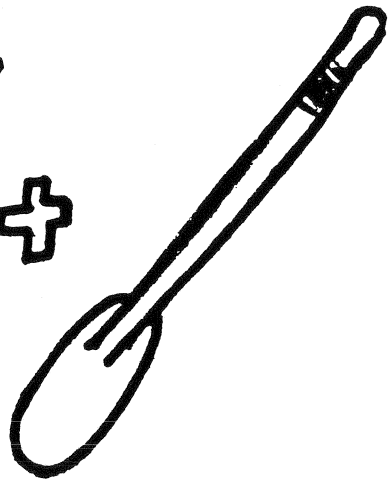

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LEARNING ACTIVITY
INSTRUCTOR INFORMATION

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CONCEPT: INTRODUCTION

ACTIVITY TITLE: WHAT IS COMMUNICATIONS? + PICTOGRAM?

REQUIRED NUMBER OF CLASS PERIODS: Three

OBJECTIVES: THE STUDENT WILL:

1. Develop a message using only pictures
2. Experience difficulties trying to deliver a message without words
3. Decode pictograms

RESOURCES NEEDED: Magazines, Newspapers
Rubber Cement, Markers, Scissors
Large Tag Board

REFERENCES: INSTRUCTOR ORIGINAL
Samples included with this unit
Green Bay area public schools
Curriculum Department

SPECIAL SAFETY CONSIDERATIONS:

Observe all safety precautions when working in a general lab type classroom