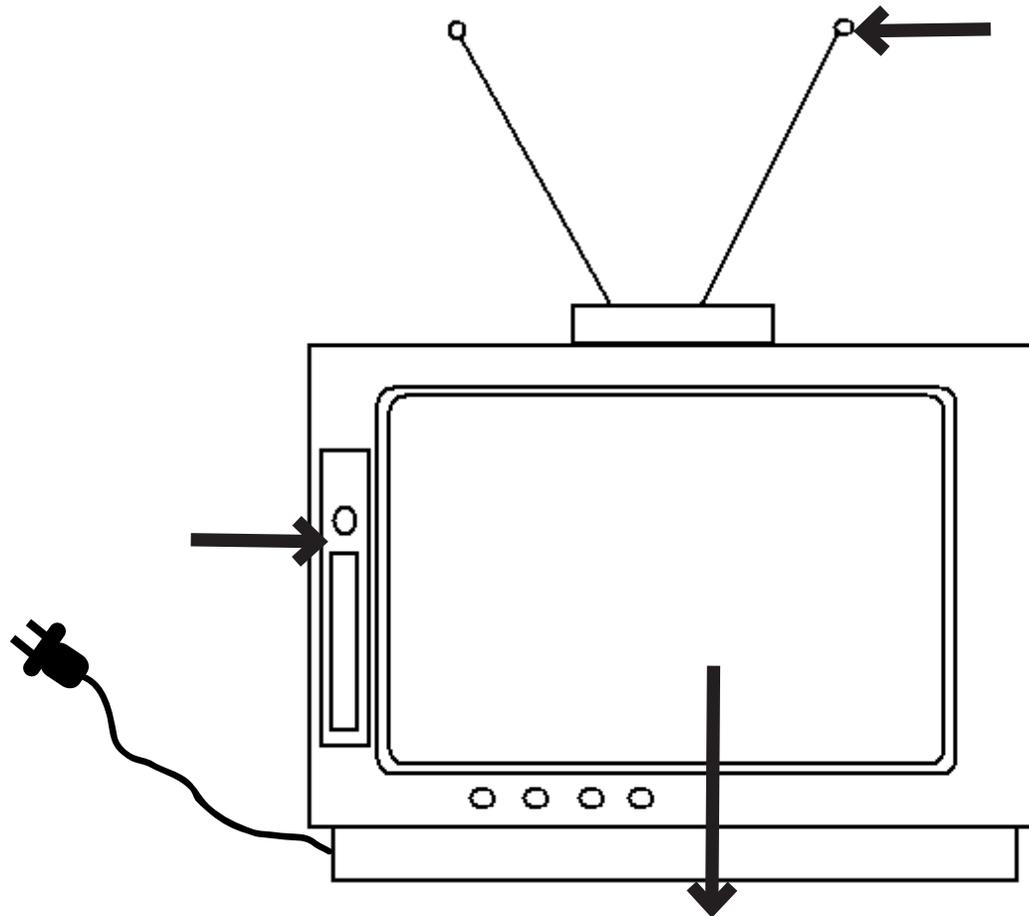
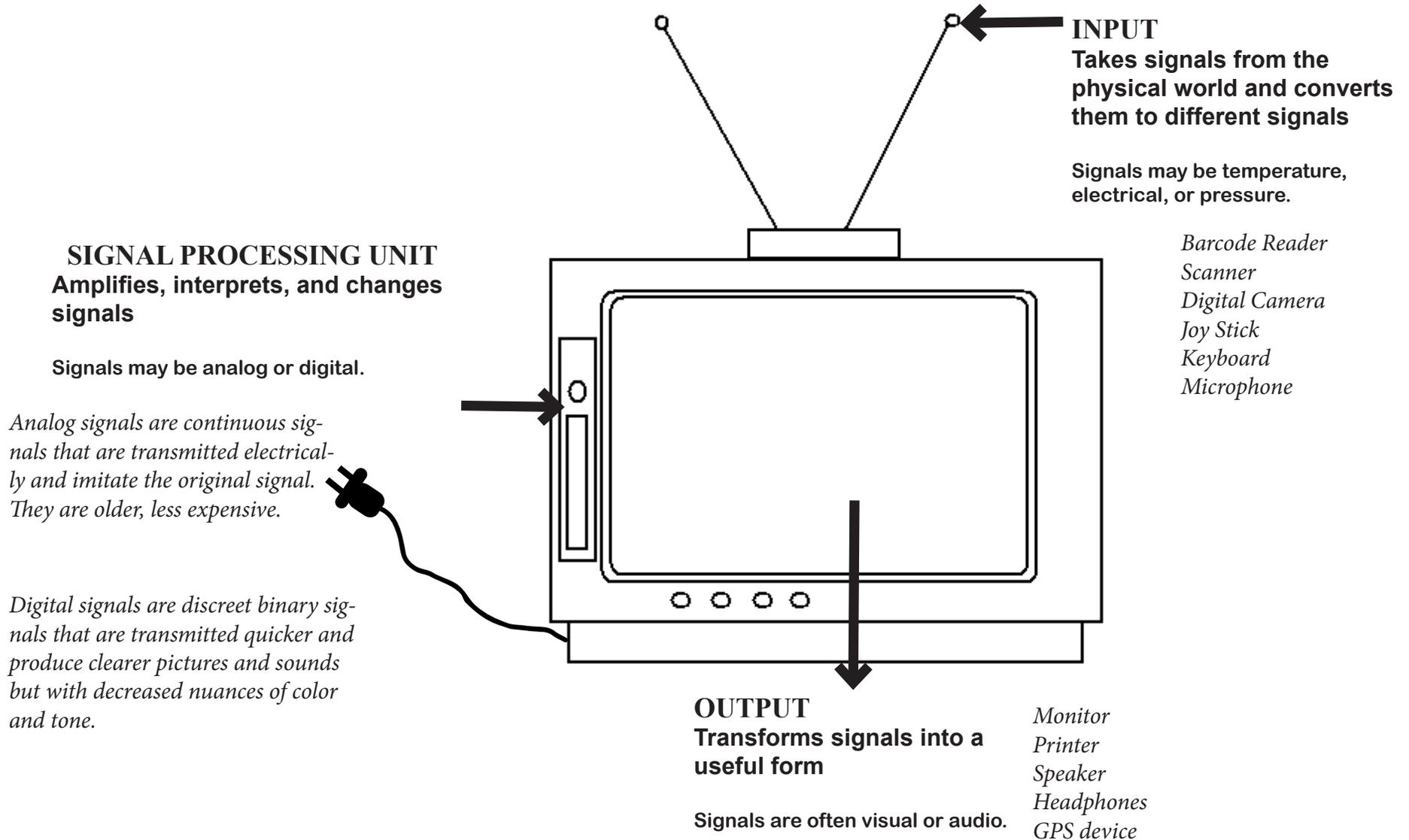


Describe the 3 major parts of an electronic system.



Describe the 3 major parts of an electronic system.



Opening Activity: Input Output

This activity works best with one leader and three kids, though it can be adapted for any number.

Example 1 Vocal to Written Word

Whisper the word “heart” into one student’s ear. Then have them write what you said on a piece of paper.

Example 2: Written Word to Diagram

Have student 1 show their written word to student 2 who will draw a simple diagram of the word.

Example 3: Diagram to Spoken Word

Have student 2 show their diagram to student three who tells what it is. Hopefull they say “heart.”

In this activity each student had an “input” and an “output.” Discuss what those inputs and outputs were.

An Old Fashioned TV

The old television sets provided a very easy explanation of input and output signals. The antenna captured the signal and the television screen displayed it.

Ask the students to give examples of other types of electronics and what their input and output signals would be.

Diagram

Have students draw simple diagrams of different types of electronics. They should identify the input, output, and SPU.

Signal Processing Unit

The Signal Processing Unit (SPU) converts the input signal into the output signal.

What was the SPU of your heart activity? The students’ brains processed the input and constructed an output.

Every piece of electronic equipment needs the “brains” to do its work.

Input Output Scramble

Use the italicized examples of inputs and outputs provided in the information pieces. You can rewrite them on larger cards if you desire. The student(s) sort them into two piles: input and output.

Technology Information Pieces

INPUT T-3
SIGNAL PROCESSING UNIT T-3
OUTPUT T-3
Takes signals from the physical world and converts them to different signals T-3
Amplifies, interprets, and changes signals T-3
Transforms signals into a useful form T-3
Signals may be temperature, electrical, or pressure. T-3
Signals may be analog or digital. T-3
Signals are often visual or audio. T-3

<i>Barcode Reader</i> T-3
<i>Scanner</i> T-3
<i>Digital Camera</i> T-3
<i>Joy Stick</i> T-3
<i>Keyboard</i> T-3
<i>Microphone</i> T-3
<i>Monitor</i> T-3
<i>Printer</i> T-3
<i>Speaker</i> T-3
<i>Headphones</i> T-3
<i>GPS device</i> T-3
<i>Analog signals are continuous signals that are transmitted electrically and imitate the original signal. They are older and less expensive.</i> T-3
<i>Digital signals are discreet binary signals that are transmitted quicker and produce clearer pictures and sounds but with decreased nuances of color and tone.</i> T-3

To Make Your **MatchCard** more durable:

1. Put the student MatchCard in a clear plastic page protector.
2. Laminate the information pieces. You can also make them sturdier by covering the paper with transparent tape prior to cutting the pieces out.
3. For more ideas on how to use the MatchCards, and for keeping a notebook for review, see the Instructor's Guide.
4. The complete Technology Unit Study provides the student worksheets, answer key, and teaching activities for this and 5 other objectives. See the website for more information.