### UNIT 3

NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### TECHNOLOGICAL SYSTEMS

### INTERACTIONS

## Coffee Anyone?

Use information from the website <http://www.howstuffworks.com/coffee-maker.htm> to research and complete questions regarding the parts and functions of a coffeemaker. You may only use Sections 1-5 of this website and the diagram found on the next page.

Identify the important parts and indicate what they do.

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|  | **Part Name** | **Subsystem (see below)** | **Function Served** |
| 1 | Warming Plate |  |  |
| 2 | Shower Head |  |  |
| 3 | Bucket (Reservoir) |  |  |
| 4 | White Tube |  |  |
| 5 | Drip Area |  |  |
| 6 | Orange Hot-Water Tube |  |  |
| 7 | Orange Cold-Water Tube |  |  |
| 8 | Switch |  |  |
| 9 | Resistive Heat Element |  |  |
| 10 | Heat Conductive Grease |  |  |
| 11 | Temperature Sensor |  |  |
| 12 | Thermal fuse |  |  |
| 13 | One-Way Valve |  |  |
| 14 | Filter and Basket |  |  |
| 15 | Carafe |  |  |
| 16 | Signal Lamp |  |  |

What subsystem does each part belong to? Write the letter of the appropriate subsystem next to each of the parts listed above.

(T) Fluid Transportation System

(F) Filtering System

(H) Heating System

(S) Structural System



Describe how two of these subsystems **interact** with one another.

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Describe how each of the subsystems is **connected** to other subsystems.

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Give an example of how the malfunction of one of these subsystems could affect the function and quality of the entire system.

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**Draw** and **label** a diagram of a subsystem within a system of the coffee maker.