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Instructions for Systems and System Models

Pairs (Go Fish, Memory, Old Maid)

Go Fish

- 1. Deal 5 cards to each player
- 2. Players take turns asking another player for a match from a card that they are holding
- 3. If the other player does not have a match they say "Go Fish." Asking player picks up from pile
- 4. Play continues until all cards are used.
- 5. The player with the most matches wins.

Memory

- 1. Match all of the cards with their pair
- 2. Pick 10 pairs, shuffle them and place them face down in a 4x5 grid.
- 3. Players pick turns turning over 2 cards to try and find pairs. If a match is discovered, that player keeps the pair and gets another turn. The player with the most "matches" at the end wins.

Old Maid

- 1. For 8 players, deal all the cards out, for 4 players find all the matches and remove the duplicates. Then deal all the cards out.
- 2. The goal is to collect a match or pair of cards. The person left of the dealer goes first, they pick a random card from the hand of the person to their right. If they can make a match they put it down face up.
- 3. Play continues until all the matches have been made. The person holding the "You crashed the system" card when all the matches have been made is the loser of the game.

| <u>System</u> : | |
|-----------------|---|
| | <u>Input</u> : Gasoline |
| | <u>Output</u> : Movement |
| | <u>Parts</u> : Engine, Seats, Frame, Wheels, Windows |
| | |
| <u>System</u> : | |
| | Input: Electrical energy stored in a battery |
| | <u>Output</u> : Light |
| | <u>Parts</u> : Batteries, wires, switch, bulb |



| Input: Electricity |
|--|
| <u>Output</u> : Light and Sound |
| <u>Parts</u> : Screen, wires, plug, speakers |
| |
| |
| <u>Input</u> : Solar Energy |
| <u>Output</u> : Life |
| <u>Parts</u> : Bodies of Water, Land, Mountains, Life |
| |



| <u>System</u> : | |
|-----------------|--|
| | <u>Input</u> : Mechanical energy / strumming |
| | <u>Output</u> : Sound energy |
| | <u>Parts</u> : strings, wooden body, knobs |
| | |
| <u>System</u> : | |
| <u>System</u> : | <u>Input</u> : food as energy |
| System: | Input: food as energy Output: movement, thoughts, offspring |



| <u>System</u> : | |
|-----------------|--|
| | Input: up and down movement Output: cutting ability Parts: blades, handles |
| <u>System</u> : | |
| | Input: electrical energy Output: sound energy Parts: wires, plug, ear piece |



| <u>System</u> : | |
|-----------------|---|
| | <u>Input</u> : Pressing a key |
| | <u>Output</u> : sound energy |
| | <u>Parts</u> : keys, tiny soft hammers, strings |
| <u>System</u> : | |
| | <u>Input</u> : Electrical energy |
| | <u>Output</u> : Heat energy |
| | <u>Parts</u> : Wires, heat coils, lever, timer |



| <u>System</u> : | |
|-----------------|--|
| | Input: energy from plants Output: movement and offspring |
| | <u>Parts</u> : gills, fins, scales, eyes, tail |
| | |
| <u>System</u> : | |
| <u>System</u> : | <u>Input</u> : Solar energy |
| <u>System</u> : | Input : Solar energy Output : Electrical energy |
| <text></text> | Input: Solar energy Output: Electrical energy Parts: solar cells, wires, a stand |







| <u>System</u> : | |
|-----------------|---|
| | Input: movement from the wind Output: movement of the ship Parts: sails, rope, wheel, cabin, anchor |
| <u>System</u> : | |
| | Input: water, sunlight, CO2 Output: Oxygen, Glucose Parts: leaves, roots, stem |







| <u>System</u> : | |
|-----------------------------|--|
| | <u>Input</u> : a spark, fuel, oxygen |
| | <u>Output</u> : light and heat |
| | <u>Parts</u> : logs, flames |
| | |
| <u>System</u> : | |
| | <u>Input</u> : money |
| CALLED CALLED CALLED CALLED | <u>Output</u> : money |
| | <u>Parts</u> : cash, cards, slots to hold cards and cash a structure of the second structure of |





