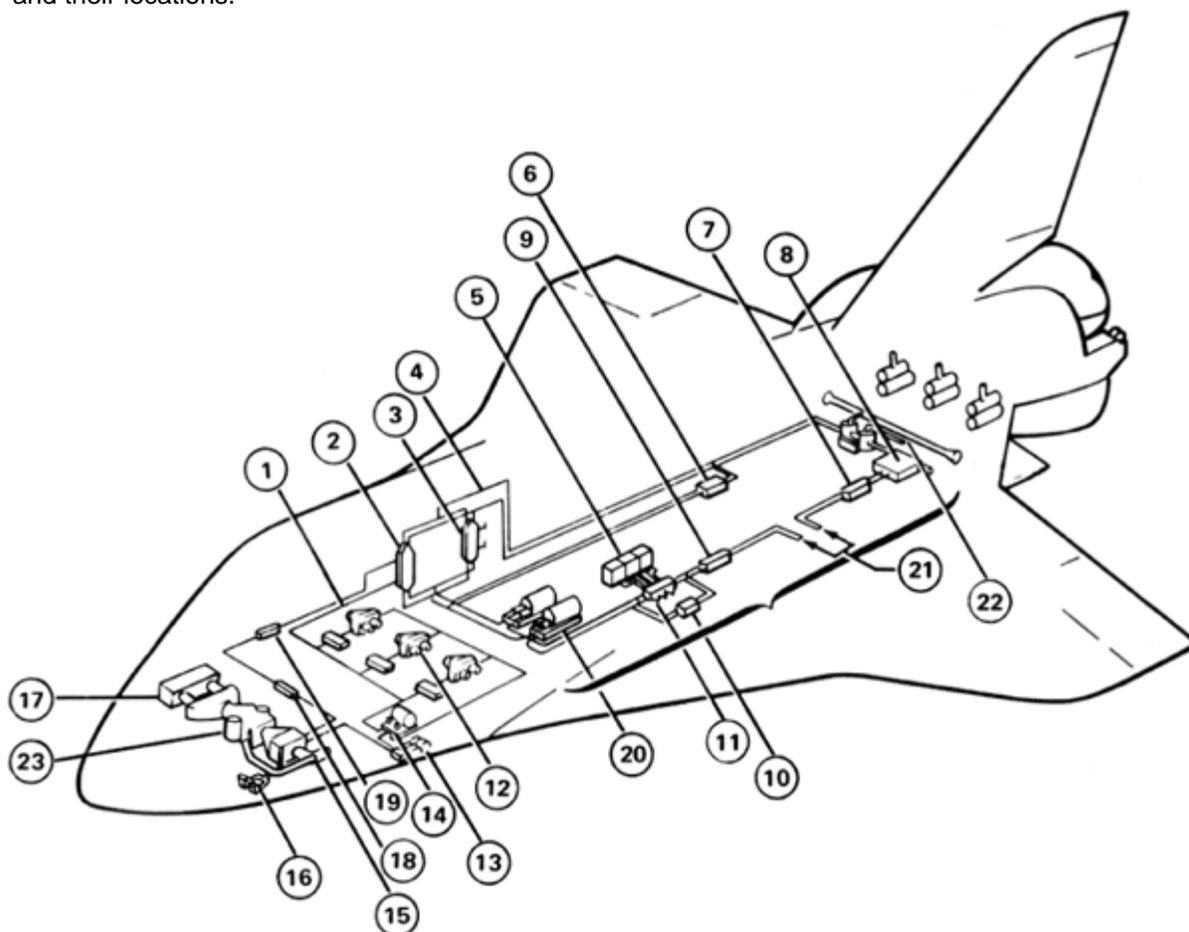


## ANSWER KEY: ECLSS Diagram

### Directions:

Label the following diagram to become more familiar with 23 ECLSS individual components on the orbiter and their locations.



- |   |  |
|---|--|
| 1. Water coolant loops  | 13. Inertial measurement units heat exchanger and fans |
| 2. Interchanger heat exchanger  | 14. Water pumps  |
| 3. Payload heat exchanger   | 15. Cabin air-to-water heat exchanger                  |
| 4. Freon-21 coolant loops   | 16. Humidity water separators                          |
| 5. Fuel cell power plants   | 17. Cabin fans and check valve assemblies              |
| 6. Aft avionics bay and cold plates                                   | 18. Potable water chiller heat exchanger               |
| 7. Ground support equipment heat exchanger                            | 19. Liquid-cooled garment heat exchanger               |
| 8. Ammonia boiler   | 20. Freon-21 coolant pumps                             |
| 9. Hydraulic heat exchangers to radiators                             | 21. To radiators                                       |
| 10. Midbody cold plates   | 22. Flash evaporators                                  |
| 11. Fuel cell heat exchanger to Freon-21 coolant loops                | 23. Carbon dioxide absorber                            |
| 12. Avionics bays 1, 2, and 3A heat exchangers, fans, and cold plates |  |

**Directions:**

Label the following diagram to become more familiar with the 4 ECLSS subsystems and their functions.

**1. Atmospheric Revitalization and Pressure Control System (ARPCS)****2. Active Thermal Control System****3. Food, Water, and Waste Subsystem**