WIRELESS NETWORK ARCHITECTURE

**Components Used for Monitoring the Nursery:**

1. **Wireless Access Points (WAPs)**:
   * Provide Wi-Fi coverage throughout the nursery for staff, parents, and monitoring devices.
   * Ensure seamless connectivity across indoor and outdoor areas.
2. **Monitoring Devices**:
   * **Video Cameras**:
     + Monitor children and staff for security and safety.
     + Connect wirelessly to the network for live streaming and recording.
   * **Environmental Sensors**:
     + Monitor temperature, humidity, CO2 levels, and air quality.
     + Transmit data wirelessly to a central monitoring system.
3. **Network Infrastructure**:
   * **Router and Firewall**:
     + Provide secure internet access and protect against unauthorized access.
   * **Switches**:
     + Connect wired devices such as computers and printers.
     + Support Power over Ethernet (PoE) for powering cameras and sensors.
4. **Central Monitoring System**:
   * Collect and analyze data from monitoring devices.
   * Provide real-time monitoring and historical data analysis.
   * Enable remote access for management and troubleshooting.
5. **Backup and Redundancy**:
   * Uninterruptible Power Supplies (UPS) for critical equipment.
   * Backup internet connections (e.g., 4G/5G) for continuous operation.
6. **Security Measures**:
   * Encryption (e.g., WPA2/WPA3) to secure wireless communications.
   * Access control mechanisms for protecting sensitive data.

**Illustrative Architecture:**

Here’s a simplified diagram illustrating how these components can be interconnected in a Wireless Network Architecture for a nursery:

**Architecture Overview:**

* **Wireless Access Points**: Deployed strategically for comprehensive coverage.
* **Monitoring Devices**: Cameras and sensors integrated into the network.
* **Network Infrastructure**: Router, switches, and firewall ensure connectivity and security.
* **Central Monitoring System**: Collects and analyzes data for real-time oversight.
* **Backup and Redundancy**: UPS and backup internet connections ensure continuity.
* **Security Measures**: Encryption and access controls protect data and network integrity.
* 