

This document is to provide understanding of how the ventilation system at Lincoln Elementary functions, and how it will operate during the COVID-19 pandemic. It is based on strategies from the "District Wide" plan to minimize COVID-19 risk. Maintenance staff inspected every room and all HVAC components of this building. Included in this document is a summary of the ventilation system, how the ventilation will operate during COVID-19, key action items for staff, and detailed space specific ventilation descriptions and instructions.

### Summary of Lincoln's Ventilation System

- There are several different ventilation system designs throughout the school. Most rooms utilize a common rooftop HVAC unit that provides fresh outside air, filters then recirculates existing air. Other rooms such as 123 and 124 have operable windows that can be used to introduce fresh air and increase ventilation.

### Ventilation Operation During COVID-19

- The maximum supply of fresh outside air allowing for 70°F will be used, beginning 1 hour prior to students arriving and end 1 hour after students leave. The temperature and air mixture is controlled remotely by facilities. The fan is controlled in the room. Staff should always have the fan on.
- The building temperature will be kept at 68°F minimum 3 hours before and after students are present. This is controlled remotely by facilities.
- To increase ventilation, doors and or windows can be opened. This can be done during breaks to accelerate ventilation with minimal disruption to "Flush" the room.
- Windows in the modular classrooms should be opened 3 inches to increase ventilation.
- HVAC filters have been upgraded to MERV-11.
- Maintenance staff will inspect equipment for proper operation twice per month.

### Key Action Items for Staff

1. **Masks:** Wearing masks is the single most effective measure for air quality in the school during the COVID-19 pandemic, followed by the operational blueprint, and then HVAC ventilation measures (See Corvallis School District COVID-19 Air Quality Plan - District Wide).
2. **Keep Clear:** To ensure proper ventilation HVAC equipment such as vents, heaters, fans, and radiators should not be obstructed, or have items stored on or within 2ft.
  - a. Exhaust vents above coat racks: Do not block with items on the shelves.
  - b. Room 151 relies on the return vent in 149. Ensure the door is open and nothing is blocking the vent. Alternatively, windows in 151 can be opened.
3. **Small Enclosed Spaces:** Small enclosed spaces with poor ventilation where a person remains unmasked for extended periods of time can be higher risk for aerosolized COVID-19. Staff should increase air circulation by opening windows, doors, reduce the number of people utilizing the space, and ventilate for 20 min between users.
  - a. Home Court (RM143, 142)
  - b. Counselors Office (RM 129A,B)
  - c. Principal's Office

d. Assistant Principal's Office (127)

**Detailed Space Specific Ventilation Descriptions and Instructions**

- **Classrooms (157 165), (145 146 149 151 152 153 154), (113 118 122):** These classrooms have a common HVAC unit. Outside air is drawn from directly outside, combined with return air, filtered and then blown into the room. The air moves around the room, returns through vents to the HVAC unit, part is mixed with the fresh outside air, filtered, some air is exhausted and some is filtered and recirculated. The return fan runs at all times to circulate air. Additional ventilation can be accomplished by opening doors if desired.
- **Class room 151:** This room does not have its own exhaust ventilation. It utilizes the exhaust vent in classroom 149. For proper ventilation the door between 151 and 149 must remain open. Alternatively, this door can be shut if the windows are opened 3 inches.
- **Classrooms 117 123 124:** Air is supplied from doors and windows, and is passively circulated by the radiant heat under the windows. For proper air circulation items and furniture should not be within 2 ft of the baseboard heater. Air is exhausted by doors and windows. Windows should be opened slightly to increase ventilation during the COVID-19 pandemic.
- **Library:** classrooms have a common HVAC unit. Outside air is drawn from directly outside, combined with return air, filtered and then blown into the room. The air moves around the room, returns through vents to the HVAC unit, part is mixed with the fresh outside air, filtered, some air is exhausted and some is filtered and recirculated. The return fan runs at all times to circulate air. Additional ventilation can be accomplished by opening doors if desired.
- **Boys and Girls Restroom 147 148:** Air is supplied from a HVAC unit on the roof. Air is exhausted through doors and windows. Windows should be opened slightly to increase ventilation.
- **Restrooms:** Air is supplied from the doorway and exhausted by a vent and fan in the ceiling.
- **Home Court 142 143:** These rooms are connected by a pass through vent and do not have ventilation. If multiple people are to use this space additional ventilation such as opening doors, or portable air purifiers should be used. The space should be ventilated for 20 min between users.
- **Gym:** Air is drawn in from outside, filtered, heated, and then distributed to the gym through vents in the ceiling. Air circulates around the room, then is drawn into vents in the floor. If the gym is to be used for physical activities or by more than 15 people, Facilities should be notified to increase the percentage of outside air.
- **Hallways:** Air is drawn in passively when doors are opened and then passively exhausted outside through doorways.
- **Restrooms:** Exhaust fans draw air from the doorway, through the space, and then exhaust outside through ductwork to the roof.

- **Kitchen:** The kitchen air is supplied by doors, and windows. It is exhausted outside through the hood fan above the stove, doors and windows.
- **Modular Classrooms:** Each modular classroom has its own individual Ventilator located on a wall outside. Air is drawn in from directly outside, heated, and then blown into the room. The maximum amount of outside air is set manually by Facilities. The air moves around the room, then vents outside through doors and windows or is drawn back into the Ventilator, heated, and recirculated. During the pandemic, two windows should be opened three inches to increase ventilation. District approved portable air purifiers will also be provided by Facilities.