

This document is to provide understanding of how the ventilation system at Mt View 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 Mt View's Ventilation System

- All classrooms have ventilation systems that supply fresh outside air. Air circulates through the room, is then drawn into ducting and exhausted outside by a fan on the roof. Air is not shared between classrooms (Rooms 9-12 share air).

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, ventilator fans can be set to "high", 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. **Fan On:** Staff commonly turn the unit ventilators fan off in classrooms 13-17 because of noise or temperature. Unit ventilator fans must always be on to supply fresh outside air, and circulate air in the room, even in warmer temperatures when cooling is being used.
3. **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. Classrooms 13-18 have unit ventilators under the windows. Ensure items are not obstructing air flow, in front of, on or within 2ft of the unit ventilator.
 - c. RM 10, Studio, Nest, LRC: There are return vents low on the wall near the hall door. Ensure these are not obstructed.
4. **Small Enclosed Spaces:** Small enclosed spaces with poor ventilation where a person remains unmasked for extended periods of time can be higher risk for areolozized

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. Mtl Health
- b. Phils Office
- c. Principal's Office
- d. Campus Stewards Office
- e. RM 10, Studio, Nest, LRC

Detailed Space Specific Ventilation Descriptions and Instructions

- **Classrooms 1-8:** These classrooms have a common HVAC unit that provides fresh air to all classrooms. This unit takes fresh outside air, heats it as needed, then supplies the room from vents along the hallway wall. Air circulates in the room, and then leaves through 3 exhaust vents above the coat rack area. Air is exhausted outside and does not recirculate. The air supply always uses 100% outside air, and classrooms do not mix air. If additional ventilation is desired windows and doors can be opened.
- **Rooms 9-12 (RM 10, Studio, Nest, LRC):** These rooms run on a closed loop system, and does not have a dedicated supply of fresh outside air. Air is supplied from the room returned to the HVAC unit, filtered, heated if needed and then recirculated into the room. There are return vents low on the wall near the hall door. Ensure these are not obstructed. If these rooms are used by more than 5 people the windows or doors should be opened to increase fresh air supply.
- **Classrooms 13-18:** These classrooms have their own HVAC unit located underneath the windows. Fresh outside air is drawn in from directly outside, filtered, heated if needed, and then blown into the room. The air moves around the room, is drawn back in through a vent at the bottom of the HVAC unit, mixed with the fresh outside air, filtered, and then recirculated. Air is exhausted through vents above the shelves next to the hall doors. Air also vents through doors, windows and leaks in the building construction. The fan on these units is designed to run at all times to circulate air. If additional outside air is desired, the most effective method is to increase the fan speed. Opening doors and windows can be done to increase ventilation as well.
- **Library:** A unit ventilator operates the same as in classrooms 13-18. This space also has a roof top HVAC unit that operates the same as rooms 9-12. Turning the ventilator fan to high or opening doors can increase ventilation.
- **Work Room:** This space uses the same HVAC unit as the library.
- **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 near the floor. Part of the air is exhausted outside and the rest returned to the supply, is filtered and recirculated. The large space dilutes aerosolized particles similar to being outside. 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 its own HVAC unit, doors, and windows. It is exhausted outside through the hood fan above the stove, doors and windows.
- **Office:** The office air is supplied by doors and windows. There are no fans or mechanical means to circulate air. Windows or doors should be opened slightly to increase ventilation.
- **MTL Health, Phils Office:** This space has air supply but no exhaust. The door should be kept open to provide ventilation. If the space is used by unmasked staff, the space should be ventilated for 20 min prior to other users entering.
- **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.