



Do Your Classrooms Meet Recommendations for COVID19?

Basic Recommendations:

Increase Outside Air

Natural Ventilation

Mechanical Ventilation

Better Filtration

Ionization



Natural Ventilation:

Weather Dependent

Reliant on Pressure Differences

Limited by Code Requirements

Not a Permanent Solution

Not Possible for Interior Spaces

16 Classrooms

28 Offices



Filtration:

Needs Mechanical Ventilation

47 Classrooms without

91 Offices without

MERV 13 Filters

Where Equipment Allows

Portable Air Purifiers with HEPA Filter

UV and Ionization options available

\$600 - \$800 per room plus options



Needlepoint Bipolar Ionization:

Needs Mechanical Ventilation

Shown Effective Against COVID19

Portable Air Purifiers as Alternative

No Ozone or Low Ozone

Example Costs: \$1,000 per Classroom

\$3,000 per Media Center

\$6,000 per ES Multi-purpose Room

\$10,000 Per HS Gymnasium



Short Timeframe Recommendations:

Damper Adjustments to Increase Outside Air

Filter Upgrades

Needlepoint Bipolar Ionization Technology

Portable Air Purifiers



2021 Recommendations:

New Mechanical Ventilation Where Missing

New Unit Ventilators for Classrooms where missing - \$45,000/room

New HVAC for Interior Classrooms where missing - \$40,000/room

New HVAC for Offices where missing - \$40,000/room

New HVAC for Interior Offices where missing - \$40,000/room

Upgrade Exhaust Ventilation

New Restroom exhaust fans where missing - \$85,000

Replace exhaust fans for Classrooms and other spaces - \$1,200,000

Replace Other Outdated Equipment