

September 27, 2023

Mr. Nicholas Crupi, CEFM  
Director, Buildings and Grounds  
Scotch Plains - Fanwood Public Schools  
512 Cedar Street  
Scotch Plains, NJ 07076

Dear Mr. Crupi,

This report outlines findings from [ESMCorp's](#) September 21, 2023 Indoor Air Quality monitoring at each of the 8 Scotch Plains-Fanwood Schools. This assessment was conducted as part of the Scotch Plains – Fanwood Schools routine preventative indoor air quality program to ensure acceptable air quality for students, staff and visitors.

The purposes of this inspection were the following:

- Determine if air quality parameters including fresh air supply, volatile organic compounds, carbon monoxide, temperature and humidity were within expected ranges.
- Determine if the school is in general compliance with current guidelines by the State of New Jersey and the CDC with respect to ventilation in classrooms for reducing COVID-19 transmission risk.

The inspections, data analysis and report were conducted by Mr. Richard A. Lynch, MBA, CIH, CIEC and Dr. Richard M. Lynch, Ph.D., CIH of Environmental Safety Management Corporation.

## Executive Summary

The September 2023 routine Indoor Air Quality Assessment of the Scotch Plains – Fanwood schools revealed that fresh air supply was within normal ranges in 82% of the 214 rooms inspected in accordance with PEOSHA, CDC and NJ Department of Education guidelines for COVID-19 transmission risk reduction in each of the 8 schools inspected. There were no musty odors, no widespread visible water damage, and no visible mold contamination observed. There were no elevations in carbon monoxide. Temperature and relative humidity were within normal ranges given outdoor conditions at each of the schools. Recommendations for inspecting unit ventilator fan speed and damper position in specific classrooms as well as for encouraging teachers to open windows whenever feasible, are contained at the end of this report.

## **I. Evaluation Criteria**

According to the CDC “regardless of the level of community transmission, it is critical that schools use and layer prevention strategies, following district policies and procedures for COVID-19 transmission risk reduction. Recent [State of NJ Department of Health updated guidance for K-12 Schools \(October 7, 2022\)](#), continue to recommend layered strategies for prevention of COVID-19 transmission in schools. The focus has shifted from an individual case-based response strategy to a transmission mitigation

strategy, where the risk of the whole school community, including the risk of interruptions to learning, is considered.

#### Heating Ventilation, Air Conditioning Systems

The NJDOH and CDC recommended that schools “Improve [ventilation](#) to the extent possible to increase circulation of outdoor air, increase the delivery of clean air, and dilute potential contaminants. This can be achieved through several actions.

- Bring in as much outdoor air as possible.
- Ensure Heating, Ventilation, and Air Conditioning (HVAC) settings are maximizing ventilation.
- Filter and/or clean the air in the school by improving the [level of filtration](#) as much as possible.
- Use exhaust fans in restrooms and kitchens.

For mechanically ventilated schools, The [NJ PEOSHA Indoor Air Quality Standard](#) requires that HVAC systems be inspected and maintained in accordance with manufacturer specifications and that damaged components be repaired. According to the standard, when indoor air levels of carbon dioxide exceed 1,000 parts per million the employer inspect the system to ensure that it is operating as it should NJAC 12:100-13.3. The standard also requires that when indoor air temperatures cannot be maintained between 68-79°F during the heating season, that the HVAC system be inspected. This is based upon the ASHRAE 55 standard which recommends that air temperatures be maintained between 68-72°F during the heating season, 74-78°F during the cooling season and 68-79°F during the transition seasons; all ideally at 30-60% relative humidity.

In non-mechanically ventilated buildings the PEOSHA standard requires that the employer “Assure that buildings without mechanical ventilation are maintained so that windows, doors, vents, stacks, and other portals designed or used for natural ventilation are in operable condition (NJAC 12: 100-13.3-6). In naturally ventilated classrooms (rooms with no mechanical ventilation systems such as unit ventilators, or rooftop air handlers), it is recommended that windows be opened to the maximum extent possible given temperature and security concerns. (Villers et al “[SARS-CoV-2 Aerosol Transmission in Schools: The Effectiveness of Different Interventions](#)”, and Lynch “[Review 2 SARS-CoVo2 Aerosol Transmission in Schools: The effectiveness of Different Interventions](#)” Rapid Reviews COVID-19 MIT Press September 19, 2021. Recently, the New Jersey Department of Health has established a program to assist schools to receive free portable HEPA filtered air purifiers for non-mechanically ventilated classrooms and other areas including nurses offices where “medically fragile students” frequent. More information on this program can be found at this [link](#).

## **II. Methods**

Based upon the above, the following methods were observed:

1. A visual inspection of a representative sample of classrooms within each building was conducted for indications of air quality concerns including water damage, musty odors, air flow and general cleanliness.
2. Carbon Dioxide (CO<sub>2</sub>) was measured as an indicator of fresh air supply in each of the representative areas evaluated at the center of the room, and where accessible, at the discharge of unit ventilators, using a TSI Q-Trak 7575 IAQ Monitor.
3. Volatile Organic Compounds (VOC's), Carbon monoxide, temperature and relative Humidity were also measured.

### III. Findings and Results

#### General Observations

- Approximately 214 classrooms throughout the district were inspected and monitored during normal occupancy by students and staff.
- Classrooms were occupied by an average of 7 to 14 students at the time of assessment.
- Unit ventilators in over 96% of classrooms throughout the district were operating at the time of inspection.
- Windows were closed in most classrooms in each building. On average zero (0) of 2-7 windows were open in each classroom at the time of inspection.
- There were no indications of unusual accumulations of dust or debris in any areas.
- There were no mold-like or musty odors present, and no evidence of unusual mold growth in the areas inspected.

#### Air Monitoring Findings

- Outdoor air was measured to contain approximately 354 to 420 parts per million carbon dioxide with temperature at 69 to 77°F. Relative humidity ranged between 30 to 46% over the inspection period.
- The average carbon dioxide level in all classrooms monitored was 820 parts per million; lower than to the PEOSHA guideline of 1000 ppm and the ASHRAE guideline of 700 ppm above outdoor levels.
- There were no elevations in carbon monoxide detected in any of the classrooms monitored.
- Temperature and relative humidity were within the PEOSH recommended range in most areas tested, averaging 72@ 47% RH, and considered normal.
- Eighteen percent (18%) of classrooms contained elevated carbon dioxide levels exceeding 1,000 parts per million, suggesting a need to open windows whenever feasible, and to inspect unit ventilator fan speed and/or outdoor air damper position as described in the PEOSHA indoor air quality standard.

A summary of inspection findings and air quality results is displayed in Table #1 below.

**Table #1 – Q1 Air Quality Summary September 2023 - Scotch Plains Fanwood Schools**

	Total Rooms inspected	Average CO2 levels (center of room)	Average Temperature (°F)	Average Relative Humidity (%)	Average number of windows open	Average number of windows present	Average number of students present
<b>Scotch Plains - Fanwood High School</b>	62	772	72	48	0	4	11
<b>Evergreen Elementary</b>	20	862	71	50	0	4	12
<b>Coles Elementary</b>	18	736	71	47	1	5	7
<b>Terrill Middle School</b>	21	1149	74	46	1	7	14
<b>McGinn Elementary</b>	17	720	75	44	1	3	10
<b>Malcolm E. Nettingham Middle School</b>	33	815	72	44	0	4	12
<b>School One Elementary</b>	24	683	73	43	0	2	13
<b>Brunner Elementary</b>	19	923	70	52	0	5	14
Total	214	-	-	-	-	-	-
Average	27	820	72	47	0	4	12

Detailed classroom findings and recommendations are contained on Table #2 at the end of this report.

#### IV. Conclusions and Recommendations

The September 2023 routine Indoor Air Quality Assessment of the Scotch Plains – Fanwood schools revealed that fresh air supply was within normal ranges in a large majority of the 214 rooms inspected throughout the 8 schools in accordance with PEOSHA, CDC and NJ Department of Education guidelines for COVID-19 transmission risk reduction. There were no musty odors, no widespread visible water damage, and no visible mold contamination observed. There were no elevations in carbon monoxide or volatile organic compounds. Temperature and relative humidity were with normal ranges given outdoor conditions at each of the schools.

##### Recommendations

1. Unit ventilators and rooftop HVAC systems in particular classrooms as shown in school-specific Tables at the end of this report should be inspected for airflow rates and/or fresh air damper position.
2. Teachers should be encouraged to open as many windows as is feasible given outdoor temperature and humidity conditions, keep unit ventilators running, and operate supplemental air filters in classrooms, nurse offices and trailers where provided by the district.

Thank you for the opportunity to assist you with the evaluation. Our next routine air quality monitoring will be scheduled for December 2023. Please contact me with any questions at (856)764-3557.

Sincerely,

*Richard A. Lynch*

Richard A. Lynch, MBA, CIH, CIEC

Certified Industrial Hygienist

NJ Licensed Indoor Environmental Consultant

[www.esmcorp.com](http://www.esmcorp.com)

Reviewed and Authorized:

*Richard M. Lynch*

Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM

NJ Licensed Indoor Environmental Consultant

President, ESMCorp

[rlynch@esmcorp.com](mailto:rlynch@esmcorp.com)

School Name **Scotch Plains - Fanwood High School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 Scott Street  
 Fanwood, NJ 08025  
 Tel: (908) 784-0557  
 Fax: (908) 784-0558  
 www.esmcorp.com

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	360	0	69	46	0	-	
176	no	no	no	yes	1	25	2	8	413	0	71	48	0	373	
259	no	no	no	yes	1	28	0	8	468	0	70	46	0	416	
164	no	no	no	yes	6	21	1	11	496	0	72	45	0	430	
277	no	no	no	yes	24	24	1	4	502	0	72	49	0	472	
165	no	no	no	yes	2	24	0	11	525	0	70	48	0	466	
122	no	no	no	yes	0	24	0	0	537	0	73	45	0	roof	
175	no	no	no	yes	0	24	0	4	538	0	71	47	0	483	
102	no	no	no	yes	1	14	0	0	544	0	71	49	0	roof	
252	no	no	no	yes	0	26	2	8	559	0	71	47	0	437	
279	no	no	no	yes	24	25	3	8	573	0	76	44	0	443	
nurse	no	no	no	yes	3	5	0	2	573	0	72	52	0	534	
207	no	no	no	yes	1	22	0	0	575	0	73	45	0	roof	
156	no	no	no	yes	0	25	0	8	602	0	71	50	0	530	
101	no	no	no	yes	12	24	0	0	620	0	69	52	0	roof	
129	no	no	no	yes	1	24	0	0	627	0	72	46	0	roof	
255	no	no	no	yes	1	24	0	8	630	0	71	48	0	505	
210	no	no	no	yes	1	24	1	2	636	0	73	46	0	roof	
171	no	no	no	tes	0	23	0	8	640	0	71	49	0	575	
275	no	no	no	yes	20	24	1	12	648	0	75	46	0	512	
222	no	no	no	yes	2	20	0	2	658	0	72	47	0	roof	
media center	no	no	no	yes	35	100	0	0	664	0	72	47	0	roof	
264	no	no	no	yes	0	25	0	8	691	0	71	49	0	688	inspect unit ventilator for damper position and fan speed
236	no	no	no	yes	0	10	0	0	700	0	72	45	0	roof	
157	no	no	no	yes	1	22	1	8	717	0	71	48	0	610	
266	no	no	no	yes	0	26	1	8	719	0	72	48	0	703	inspect unit ventilator for damper position and fan speed
152	no	no	no	yes	1	25	0	16	726	0	70	49	0	512	

School Name **Scotch Plains - Fanwood High School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 Scott Street  
 Fanwood, NJ 08025  
 Tel: (908) 784-0557  
 Fax: (908) 784-0558  
 www.esmcorp.com

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	360	0	69	46	0	-	
128	no	no	no	yes	0	24	0	0	731	0	72	46	0	roof	
271	no	no	no	yes	1	25	0	11	731	0	73	47	0	700	inspect unit ventilator for damper position and fan speed
131	no	no	no	yes	24	24	0	0	740	0	72	46	0	roof	
212	no	no	no	yes	16	20	0	2	740	0	74	47	0	roof	
238	no	no	no	yes	18	24	0	0	750	0	73	48	0	roof	
223	no	no	no	yes	20	25	0	0	756	0	72	48	0	roof	
231	no	no	no	yes	16	25	0	2	757	0	72	47	0	roof	
177	no	no	no	yes	1	25	0	8	760	0	72	49	0	785	inspect unit ventilator for damper position and fan speed
267	no	no	no	yes	0	25	0	8	764	0	73	48	0	633	
258	no	no	no	yes	0	24	0	4	773	0	70	52	0	608	
202	no	no	no	yes	16	24	1	2	776	0	73	47	0	roof	
204	no	no	no	yes	16	22	0	0	794	0	74	47	0	roof	
158	no	no	no	yea	0	16	0	8	803	0	71	54	0	799	inspect unit ventilator for damper position and fan speed
111	no	no	no	yes	30	30	0	0	804	0	72	49	0	roof	
133	no	no	no	yes	24	24	0	0	814	0	73	48	0	roof	
237	no	no	no	yes	20	24	0	0	834	0	73	50	0	roof	
139	no	no	no	yes	23	24	0	2	843	0	73	49	0	roof	
211	no	no	no	yes	20	22	0	0	848	0	73	48	0	roof	
136	no	no	no	yes	24	24	0	0	861	0	74	48	0	roof	
137	no	no	no	yes	20	20	0	2	863	0	73	50	0	roof	open windows
141	no	no	no	yes	24	24	0	1	879	0	74	48	0	roof	open windows
233	no	no	no	yes	16	25	0	0	883	0	73	47	0	roof	open windows
274	no	no	no	yes	12	24	0	8	885	0	73	50	0	750	open windows
215	no	no	no	yes	24	24	0	2	907	0	74	48	0	roof	open windows, inspect rooftop ventilator for damper position and fan speed
235	no	no	yes	yes	20	25	0	0	933	0	73	47	0	roof	open windows, inspect rooftop ventilator for damper position and fan speed, replace water damaged ceiling tile
281	no	no	no	yes	13	25	0	8	949	0	74	52	0	812	open windows, inspect unit ventilator for damper position and fan speed

School Name **Scotch Plains - Fanwood High School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 SCOTT STREET  
 FANWOOD, NJ 08025  
 TEL: (201) 784-0557  
 FAX: (201) 784-0558  
 WWW.EMCORP.COM

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	360	0	69	46	0	-	
242	no	no	no	yes	24	24	0	0	950	0	73	50	0	roof	inspect rooftop ventilator for damper position and fan speed
278	no	no	no	yes	20	24	0	4	962	0	74	45	0	700	open windows
245	no	no	no	yes	24	25	0	0	975	0	73	47	0	roof	inspect rooftop ventilator for damper position and fan speed
150	no	no	no	yes	6	24	0	8	984	0	72	48	0	715	open windows
247	no	no	no	yes	24	24	0	0	1010	0	74	48	0	roof	
276	no	no	no	yes	20	24	0	12	1098	0	73	47	0	856	open windows, inspect unit ventilator for damper position and fan speed
173	no	no	no	yes	0	30	0	4	1125	0	71	53	0	1085	open windows, inspect unit ventilator for damper position and fan speed
261	no	no	no	yes	0	24	0	9	1235	0	72	50	0	1140	open windows, inspect unit ventilator for damper position and fan speed
256	no	no	no	yes	1	24	0	4	1350	0	71	52	0	1300	open windows, inspect unit ventilator for damper position and fan speed
282	no	no	no	yes	15	25	0	8	1385	0	73	53	0	1450	open windows, inspect unit ventilator for damper position and fan speed
Average					11	25	0	4	772	0	72	48	0	678	

School Name **Evergreen Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 Scott Street  
 Riverside, NJ 08075  
 Tel: (609) 764-3557  
 Fax: (609) 764-3558  
 www.esmcorp.com

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	415	0	74	45	0	-	
131	no	no	no	yes	0	26	0	4	627	0	71	48	0	470	
142	no	no	no	yes	2	4	0	2	639	0	72	49	0	roof	
141	no	no	no	yes	3	12	0	6	650	0	72	52	0	518	
143	no	no	no	yes	2	4	0	4	662	0	72	49	0	roof	
nurse	no	no	no	na	2	4	0	2	701	0	72	48	0	-	
118	no	no	no	yes	11	22	0	2	704	0	71	51	0	610	
128	no	no	no	yes	22	24	0	6	712	0	71	48	0	564	
114	no	no	no	yes	19	24	0	2	749	0	72	48	0	roof	
124	no	no	no	yes	11	15	0	6	778	0	71	51	0	662	
117	no	no	no	yes	0	25	0	2	782	0	71	50	0	roof	
120	no	no	no	yes	13	25	0	5	845	0	70	53	0	725	
media center	no	no	no	yes	20	50	0	8	858	0	71	51	0	823	
129	no	no	no	yes	17	24	0	6	903	0	72	46	0	691	open windows
104	no	no	no	yes	21	24	0	4	942	0	70	51	0	652	open windows
127	no	no	no	yes	22	26	0	4	944	0	72	49	0	722	open windows
112	no	no	no	yes	0	16	0	2	961	0	72	51	0	roof	open windows
135	no	no	no	no	20	24	1	4	984	0	71	53	0	-	reactivate unit ventilator
106	no	no	no	yes	22	25	3	4	1030	0	70	53	0	764	
107	no	no	no	yes	19	24	0	4	1086	0	73	53	0	746	open windows
110	no	no	no	yes	20	24	0	4	1675	0	72	53	0	1593	open windows, inspect unit ventilator for damper position and fan speed
				Average	12	21	0	4	862	0	71	50	0	734	



School Name **Coles Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 BODDY STREET  
 RIVERVIEW, NJ 08075  
 TEL: (201) 764-3557  
 FAX: (201) 764-3558  
 WWW.ESM-CORP.COM

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	399	0	74	32	0	-	
129	no	no	no	yes	0	21	0	4	566	0	69	42	0	roof	
107	no	no	no	yes	1	24	0	3	567	0	72	46	0	479	
130	no	no	no	yes	3	10	0	2	596	0	69	45	0	roof	
133	no	no	no	yes	3	12	0	2	600	0	67	44	0	roof	
142	no	no	no	yes	1	21	4	8	615	0	72	47	0	543	
144	no	no	no	yes	0	21	3	4	615	0	72	47	0	535	
media center	no	no	no	yes	1	50	0	4	617	0	70	41	0	roof	
145	no	no	no	no	1	20	3	4	637	0	72	48	0	-	reactivate unit ventilator
148	no	no	no	yes	1	25	0	4	637	0	72	51	0	596	
110	no	no	no	yes	0	24	4	4	707	0	73	44	0	559	
139	no	no	no	yes	0	24	4	4	710	0	72	46	0	537	
121	no	no	no	yes	21	23	0	4	711	0	73	36	0	486	
113	no	no	no	yes	22	25	0	8	804	0	73	48	0	634	
136	no	no	no	yes	1	24	0	8	853	0	72	56	0	635	open windows
134	no	no	no	yes	0	24	0	4	975	0	70	60	0	813	open windows
115	no	no	no	yes	21	24	0	4	980	0	72	50	0	621	opwn windows
118	no	no	no	yes	21	24	4	4	1012	0	73	50	0	725	
119	no	no	no	yes	23	24	0	8	1043	0	73	40	0	925	open windows, inspect unit ventilator for damper position and fan speed
Average					7	23	1	5	736	0	71	47	0	622	-

School Name **Terrill Middle School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 Scott Street  
 Riverside, NJ 08075  
 Tel: (201) 794-0557  
 Fax: (201) 794-0558  
 www.esmcorp.com

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	389	1.1	74	36	0	-	
11	no	no	no	yes	4	12	0	7	623	0	77	47	0	387	
MCB	no	no	no	yes	20	24	1	7	641	0	74	43	0	554	
8	no	no	no	yes	1	24	2	12	782	0	75	42	0	590	
15	no	no	no	no	2	24	2	8	787	0	76	45	0	-	reactivate unit ventilator
5	no	no	no	yes	20	25	1	7	795	0	77	40	0	590	
13	no	no	no	yes	17	26	0	8	853	0	77	41	0	730	open windows
7	no	no	no	yes	1	24	1	10	907	0	75	44	0	707	
2	no	no	no	yes	16	24	3	7	937	0	77	51	0	650	
1	no	no	no	yes	20	24	0	7	940	0	77	44	0	736	open windows, inspect unit ventilator for damper position and fan speed
26	no	no	no	yes	20	25	0	7	1070	0	74	44	0	800	open windows, inspect unit ventilator for damper position and fan speed
25	no	no	no	yes	20	25	3	7	1100	0	73	48	0	835	open windows, inspect unit ventilator for damper position and fan speed
nurse	no	no	no	no	5	2	0	5	1135	0	76	46	0	973	open windows, inspect unit ventilator for damper position and fan speed
14	no	no	no	yes	20	24	0	7	1230	0	76	45	0	860	open windows, inspect unit ventilator for damper position and fan speed
32	no	no	no	yes	5	26	0	7	1315	0	70	55	0	984	open windows, inspect unit ventilator for damper position and fan speed
40	no	no	no	yes	22	27	0	4	1320	0	70	52	0	1230	open windows, inspect unit ventilator for damper position and fan speed
29	no	no	no	yes	16	26	0	8	1347	0	71	48	0	1030	open windows, inspect unit ventilator for damper position and fan speed
22	no	no	no	yes	24	24	0	4	1400	0	70	44	0	1188	open windows, inspect unit ventilator for damper position and fan speed
35	no	no	no	yes	25	26	0	4	1400	0	70	49	0	1070	open windows, inspect unit ventilator for damper position and fan speed
21	no	no	no	yes	24	24	0	4	1500	0	78	47	0	1572	open windows, inspect unit ventilator for damper position and fan speed
36	no	no	no	yes	1	25	0	4	1650	0	70	46	0	1650	open windows, inspect unit ventilator for damper position and fan speed
20	no	no	no	yes	20	24	0	4	2402	0	71	47	0	2500	open windows, inspect unit ventilator for damper position and fan speed
Average					14	23	1	7	1149	0	74	46	0	982	-

School Name **McGinn Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 80271 Street  
 Riverdale, NJ 08075  
 Tel: (201) 784-2587  
 Fax: (201) 784-2588  
 www.esmcorp.com

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	420	0	75	34	0	-	
106	no	no	no	yes	0	15	0	3	497	0	75	38	0	roof	
108	no	no	no	yes	1	25	0	4	515	0	75	38	0	roof	
104	no	no	no	yes	0	26	0	3	545	0	75	38	0	525	
116	no	no	no	yes	10	25	0	4	654	0	75	45	0	500	
151	no	no	no	yes	20	25	0	4	657	0	73	45	0	roof	
118	no	no	no	yes	18	24	0	4	687	0	76	45	0	578	
124	no	no	no	yes	21	25	2	4	690	0	76	45	0	521	
150	no	no	no	yes	21	25	0	2	715	0	73	47	0	roof	
149	no	no	no	yes	20	25	0	2	722	0	73	47	0	roof	
133	no	no	no	yes	1	24	4	4	732	0	75	45	0	648	
129	no	no	no	no	1	24	2	4	733	0	76	43	0	-	reactivate unit ventilator
130	no	no	no	yes	1	25	2	2	753	0	75	43	0	582	
media center	no	no	no	yes	3	50	0	2	755	0	73	45	0	roof	
120	no	no	no	yes	15	25	0	4	857	0	76	45	0	694	open windows
134	no	no	no	yes	0	24	0	4	887	0	75	43	0	611	open windows
121	no	no	no	yes	18	25	0	4	918	0	75	45	0	796	open windows
117	no	no	no	yes	20	25	0	3	931	0	74	45	0	695	open windows
Average					10	26	1	3	720	0	75	44	0	615	

School Name **Malcolm E. Nettingham Middle School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 SCOTT STREET  
 PRINCETON, NJ 08507  
 Tel: (609) 794-0557  
 Fax: (609) 794-0558  
 WWW.ESM-CORP.COM

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	354	0	77	30	0	-	
119e	no	no	no	yes	0	25	0	1	396	0	72	43	0	roof	
119f	no	no	no	yes	2	25	0	1	411	0	71	44	0	roof	
102	no	no	no	yes	0	40	0	8	450	0	71	43	0	420	
114	no	no	no	yes	0	24	3	4	501	0	73	48	0	405	
110	no	no	no	yes	0	28	0	4	505	0	72	48	0	430	
119d	no	no	no	yes	10	25	0	0	510	0	71	43	0	roof	
101	no	no	no	yes	3	50	0	0	535	69	72	45	0	roof	
215	no	no	no	no	0	4	0	2	542	0	73	41	0	-	reactivate unit ventilator
301	no	no	no	yes	1	16	0	6	585	0	72	41	0	436	
119b	no	no	no	yes	24	25	0	0	585	0	71	43	0	roof	
210	no	no	no	yes	22	24	0	4	630	0	72	44	0	445	
201	no	no	no	yes	0	24	0	8	649	0	73	44	0	555	
203	no	no	no	yes	24	26	0	5	698	0	72	43	0	431	
nurse	no	no	no	yes	4	4	0	0	704	0	72	47	0	roof	
219	no	no	no	yes	0	24	0	6	725	0	73	38	0	484	
120	no	no	no	yes	12	12	0	1	746	0	73	48	0	roof	
103	no	no	no	yes	0	24	0	4	757	0	72	47	0	566	
108	no	no	no	yes	20	20	0	2	763	0	73	44	0	542	
315	no	no	no	yes	10	10	0	2	765	0	73	42	0	450	
113	no	no	no	yes	12	24	0	5	806	0	72	47	0	664	
207	no	no	no	yes	14	24	0	4	829	0	72	45	0	-	
104	no	no	no	yes	20	24	0	4	832	0	72	47	0	685	
107	no	no	no	yea	22	22	0	3	873	0	73	43	0	590	open windows
316	no	no	no	yes	18	24	0	6	881	0	73	43	0	530	open windows
319	no	no	no	yes	24	24	0	6	900	0	74	43	0	527	open windows
117	no	no	no	yes	20	24	0	4	955	0	73	42	0	692	open windows
206	no	no	no	yes	20	22	0	4	1011	0	72	47	0	600	open windows, inspect unit ventilator for damper position and fan speed

School Name **Malcolm E. Nettingham Middle School**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



21 SCOTT STREET  
 RIVINGTON, NJ 08075  
 Tel: (609) 794-0557  
 Fax: (609) 794-0558  
 WWW.ESM-CORP.COM

General Observations									Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	354	0	77	30	0	-	
303	no	no	no	yes	20	24	0	5	1050	0	73	43	0	654	open windows, inspect unit ventilator for damper position and fan speed
311	no	no	no	yes	24	24	0	4	1191	0	73	44	0	760	open windows, inspect unit ventilator for damper position and fan speed
216	no	no	no	no	20	24	0	6	1225	0	73	46	0	-	reactivate unit ventilator, open windows
116	no	no	no	yes	16	26	0	5	1249	0	73	36	0	823	open windows, inspect unit ventilator for damper position and fan speed
313	no	no	no	yes	20	20	0	4	1267	0	74	45	0	897	open windows, inspect unit ventilator for damper position and fan speed
307	no	no	no	no	1	24	0	4	2380	0	74	53	0	-	reactivate unit ventilator, open windows
Average					12	23	0	4	815	2	72	44	0	572	

School Name **School One Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



211 820TH STREET  
 PLAINFIELD, NJ 08075  
 TEL: (609) 784-0557  
 FAX: (609) 784-0558  
 WWW.ESMPCORP.COM

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	407	0	72	37	0	-	
210	no	no	no	yes	1	24	0	2	523	0	73	40	0	roof	
202	no	no	no	yes	3	10	0	2	544	0	70	40	0	roof	
107	no	no	no	yes	0	6	0	1	555	0	71	45	0	roof	
101	no	no	no	yes	1	24	0	2	573	0	76	37	0	roof	
103	no	no	no	yes	1	24	0	2	592	0	75	38	0	roof	
102	no	no	no	yes	6	13	0	2	601	0	75	37	0	roof	
109	no	no	no	yes	18	24	0	2	607	0	73	45	0	roof	
112	no	no	no	yes	16	26	0	3	622	0	72	43	0	roof	
104	no	no	no	yes	20	24	0	2	625	0	73	44	0	roof	
208	no	no	no	yes	1	24	0	3	625	0	72	41	0	roof	
106	no	no	no	yes	18	24	0	2	635	0	73	44	0	roof	
105	no	no	no	yes	17	24	0	2	637	0	73	43	0	roof	
203	no	no	no	yes	23	24	0	2	644	0	71	41	0	roof	
108	no	no	no	yes	19	24	0	3	656	0	72	48	0	roof	
212	no	no	no	yes	6	15	0	2	669	0	72	43	0	roof	
209	no	no	no	yes	22	25	0	2	677	0	73	43	0	roof	
110	no	no	no	yes	13	23	0	2	687	0	73	44	0	roof	
130T	no	no	no	yes	17	24	0	4	711	0	71	47	0	621	
211	no	no	no	yes	20	21	0	2	732	0	73	43	0	roof	
204	no	no	no	yes	22	24	1	2	761	0	71	43	0	roof	
201	no	no	no	yes	19	24	0	2	764	0	72	41	0	roof	open windows
media center	no	no	no	yes	1	50	0	0	789	0	72	40	0	roof	open windows
205	no	no	no	yes	22	24	0	2	1034	0	72	47	0	roof	open windows, inspect rooftop ventilator for damper position and fan speed
206	no	no	no	yes	21	24	0	2	1118	0	73	47	0	roof	open windows, inspect rooftop ventilator for damper position and fan speed
Average					13	23	0	2	683	0	73	43	0	621	

School Name **Brunner Elementary**  
 Inspection Type **Mold/Air Quality Inspection**  
 Date of inspection **9/21/2023**



21 SCOTT STREET  
 RIVERVIEW, NJ 08075  
 TEL: (201) 794-3557  
 FAX: (201) 794-3558  
 WWW.ESM-CORP.COM

Inspected by: **Mr. Richard A. Lynch, MBA, CIH, CIEC**

Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**

Location	General Observations								Average Room Measurements				Supply Measurements		
	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	413	0	71	40	0		
119	no	no	no	yes	0	24	0	4	574	0	69	52	0	510	
129	no	no	no	yes	2	6	0	2	642	0	68	54	0	roof	
125	no	no	no	yes	7	12	0	2	653	0	69	52	0	roof	
124	no	no	no	yes	5	12	0	4	654	0	69	51	0	roof	
127	no	no	no	yes	12	16	0	3	676	0	68	53	0	roof	
media center	no	no	no	yes	0	50	0	4	703	0	69	51	0	roof	
107	no	no	no	yes	19	25	0	6	748	0	74	45	0	581	
113	no	no	no	no	18	25	1	4	762	0	70	52	0	-	reactivate unit ventilator
nurse	no	no	no	na	4	4	0	4	788	0	70	50	0	na	
111	no	no	no	yes	20	24	0	4	880	0	70	51	0	630	open windows, inspect unit ventilator for damper position and fan speed
105	no	no	no	yes	22	24	0	3	950	0	70	50	0	780	open windows, inspect unit ventilator for damper position and fan speed
206	no	no	no	yes	21	24	0	4	996	0	70	51	0	654	open windows, inspect unit ventilator for damper position and fan speed
210	no	no	no	yes	18	22	2	8	1033	0	69	54	0	725	open windows, inspect unit ventilator for damper position and fan speed
208	no	no	no	yes	20	22	0	8	1054	0	70	51	0	805	open windows, inspect unit ventilator for damper position and fan speed
121	no	no	no	yes	18	22	0	7	1100	0	68	55	0	1003	open windows, inspect unit ventilator for damper position and fan speed
201	no	no	no	yes	20	20	0	4	1156	0	70	55	0	945	open windows, inspect unit ventilator for damper position and fan speed
207	no	no	no	yes	20	20	0	8	1337	0	70	55	0	1044	open windows, inspect unit ventilator for damper position and fan speed
203	no	no	no	yes	22	24	0	4	1404	0	69	54	0	1278	open windows, inspect unit ventilator for damper position and fan speed
118	no	no	no	yes	20	24	0	4	1420	0	70	59	0	1379	open windows, inspect unit ventilator for damper position and fan speed
Average					14	21	0	5	923	0	70	52	0	861	