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# **Jordan Public Schools Elementary**

**Inspection Date  
03-04-2020**

Room/Location	Time	Number of Occupants	CO2 (ppm)	CO (ppm)	RH (%)	Temp. (F)	Comments/Observations
Custodial Office	11:05 AM	1	1054	0	25	71	
Multi-Purpose Room	11:47 AM	65	1383	0	31	72	
60	11:49 AM	1	1087	0	24	72	
Cafeteria	11:50 AM	26	1004	0	29	71	
65	11:51 AM	28	1248	0	26	72	
66	11:52 AM	1	987	0	22	72	
68	11:53 AM	7	994	0	22	72	
80	11:54 AM	1	1006	0	22	72	
75	11:55 AM	2	1170	0	25	72	
77	11:56 AM	2	1125	0	24	73	
84	11:57 AM	5	1044	0	22	73	
86	11:59 AM	3	1059	0	23	73	
85	12:00 PM	24	1220	0	25	73	
83	12:02 PM	19	1274	0	26	73	
81	12:03 PM	1	1323	0	26	73	
79	12:04 PM	2	1179	0	24	73	
74	12:05 PM	24	1149	0	23	73	
73	12:07 PM	17	1084	0	23	73	
72	12:08 PM	16	1117	0	22	73	
71	12:09 PM	21	1089	0	23	73	
69	12:10 PM	25	1124	0	24	72	
67	12:11 PM	19	1034	0	23	72	Plants
49	12:12 PM	18	939	0	20	72	
48	12:14 PM	7	862	0	19	71	
50	12:16 PM	17	1028	0	23	72	
46	12:17 PM	29	962	0	21	71	
47	12:18 PM	1	799	0	19	71	
43	12:19 PM	1	786	0	19	71	Plants
44	12:20 PM	26	821	0	21	71	
42	12:21 PM	22	929	0	21	71	
41	12:22 PM	20	782	0	19	71	
38	12:24 PM	1	858	0	21	71	
39	12:25 PM	23	869	0	21	70	
36	12:27 PM	2	909	0	21	71	
35	12:28 PM	2	885	0	21	71	
30	12:29 PM	1	874	0	20	71	
28	12:30 PM	1	759	0	20	71	
29	12:31 PM	1	780	0	19	71	
26	12:32 PM	2	785	0	19	71	
Media Center	12:35 PM	15	799	0	20	71	
24	12:37 PM	1	816	0	21	71	
21	12:38 PM	1	781	0	19	71	
20	12:38 PM	1	901	0	19	71	
17	12:40 PM	4	942	0	21	71	
15	12:41 PM	15	790	0	19	71	
Main Office	12:42 PM	3	942	0	22	72	
Nurse's Office	12:43 PM	3	1079	0	23	72	
Music Room	12:44 PM	18	1221	0	24	72	
Gymnasium	12:46 PM	22	863	0	22	71	
92	12:48 PM	1	1242	0	27	71	
94	12:51 PM	18	1376	0	28	72	
95	12:52 PM	10	1359	0	27	72	Efflorescence
97	12:53 PM	25	1705	0	30	71	
98	12:54 PM	18	1466	0	30	72	
Outdoors	12:55 PM	1	416	1	45	39	

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## Summary of Concerns & Recommendations

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See below for IEA's list of concern areas and recommendations:

### **Indoor Air Quality Parameters/Guidelines**

IEA recorded area(s) with humidity levels outside the ASHRAE recommended range of 30-60%. Relative humidity levels identified in areas listed below were found to be outside these guidelines. Low humidity levels tend to dry mucous membranes which may result in increased susceptibility to irritation. An evaluation of the ventilation system controls, performance and operation is recommended. Low relative humidity is common in buildings during the heating season.

#### All Areas

IEA recorded area(s) with carbon dioxide measurements over 1,200 ppm in the building. IEA considers carbon dioxide measurements above 1,200 ppm as an indication of a possible ventilation issue. The air-handling system serving the location with these levels should be evaluated. Possible issues with air distribution and/or the control system may be the source for the carbon dioxide measurements.

Multi-Purpose Room	Music Room	65	81
83	85	92	94
95	97	98	

IEA did not record area(s) with temperatures outside the recommended range. During the heating season, ASHRAE recommends that temperatures be between 68° and 75°F. Evaluation of temperature controls and/or ventilation system performance and operation is recommended when temperatures are found outside the range.

IEA did not record any area(s) with elevated carbon monoxide levels. IEA considers carbon monoxide over 5 ppm to be a possible indication of ventilation and/or equipment issues. The systems and equipment in locations with elevated carbon monoxide should be assessed.

### **Odors**

Odors were not detected during the site visit in the building. The source for odors should be investigated. If the source for the odor cannot be easily identified, it is recommended that further investigation be conducted by a professional consulting service.

### **Water Stained Ceiling Concerns**

Water-impacted ceiling materials should be replaced when discoloration or water staining is observed. Water-impacted ceiling materials can be a source for microbial growth. The source for the moisture infiltration should be investigated and repaired.

### **Visible Fungal Growth Concerns**

Building materials with visible fungal growth should be removed and/or cleaned under controlled conditions, per the New York City Guidelines (<https://www1.nyc.gov/assets/doh/downloads/pdf/epi/epi-mold-guidelines.pdf>) or following the Institute of Inspection, Cleaning and Restoration (IICRC) S520 *Standard and Guide for Professional Mold Remediation* to prevent possible contamination of adjacent locations and impact to building occupants.

### **Efflorescence Concerns**

During the walkthrough, IEA identified area(s) with efflorescence. IEA recommends checking the area to note humidity levels and investigating moisture concerns in the area.

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### **Bubbling/Peeling Paint Concerns**

IEA did not observe any bubbling/peeling paint in area(s) throughout the building. Bubbling/peeling paint can be caused by moisture issues. IEA recommends investigating the cause and repairing the paint. IEA recommends ensuring that the paint is not lead-based prior to disturbance.

### **Condensation Concerns**

IEA did not locate any area(s) where condensation was forming. Condensation forming on interior sources may suggest a temperature or humidity issue within the space. Elevated humidity can be a source of microbial growth. Temperature differentials that cause condensation on surfaces can suggest a ventilation concern. The condensation can be deposited on surfaces can increase the likelihood for fungal growth and damage to building materials. Window condensation can occur during extreme cold outdoor temperatures.

### **Plants**

Plants in an occupied location can be a source of allergens to sensitized individuals due to the pollen and soil mold. It is recommended that plans be removed from locations occupied by sensitized individuals. If plants are to remain in the area, the following actions are recommended:

- Water plants from the bottom to aid in preventing fungal growth on the soil surface
- Do not locate plants on top of air unit ventilators, if present in a room, to prevent soil and leaves from falling into the units.
- Do not locate plants near air supply diffusers, this will limit air currents over the plants and may prevent pollen or mold spores from becoming airborne.

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### **Taxidermy**

IEA did not observe any area(s) with taxidermy mounts present. Individuals with allergies or asthma may be sensitive to dust, animal fur, dander, body fluids, and feces and may have a reaction when exposed to these allergens. IEA recommends using an alternative to animals if allergen symptoms are found by occupants within the classroom.

### **Live Animals**

During the walkthrough, IEA did not observe any live animals. Prior to having animals, the District Nurse should be consulted to verify children's allergies. Consult parents about potential allergies in a take-home note with students or during parent-teacher conferences. IEA recommends that sensitive students are located away from the animal and that cages are regularly cleaned.

**Poor Airflow**

Poor airflow was identified in area(s) of the building during the site visit. If the building is occupied, air handling systems should be set to operate in “occupied” mode. If poor airflow is identified while systems are in “occupied” mode, a ventilation and controls assessment is recommended.

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**Poor Housekeeping**

Area(s) identified by IEA as having poor housekeeping (excessive clutter, excessive dust/debris on horizontal surfaces, etc.) were documented within the building. Poor housekeeping can limit building maintenance from conducting a proper regular cleaning of the area. This can result in elevated potential for allergen issues in sensitized individuals due to dirt and debris loading. Poor housekeeping can also allow for pest (insects and rodents) issues in the space.

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**Structural Failure**

IEA did not observe any area(s) in which external and/or internal structural failure was present. IEA would note these items as pre-cautionary and recommends that they are examined by a licensed engineer.

**Blocked Air Diffusors**

IEA did not observe blocked air diffusors in the rooms visited. Blocked supply and return on the units can limit efficient air exchange within the occupied space.