

2022 STATEWIDE ASSESSMENTS RESULTS Science

Presented by:
Rick Cohen
Kathleen Henn

Measuring
Our
Student
Learning

Tuesday, November 15, 2022

Edgar Middle School



Suzy Azevedo
Principal

Neyda Evans
Assistant
Principal



Differential between EMS and State Science Proficiencies 2019 to 2022

Grade	2019% Prof. State	2019% Prof. Metuchen	Differential	2022% Prof. State	2022% Prof. Metuchen	Differential
5 2022 n=164	29.3	49.7	20.4	25.5	37.2	11.7
8 2022 n=171	19.8	42.2	22.4	15.6	30.4	14.8



Grade 5: Science Proficiencies Content and Skill Categories

	Earth & Space Science			Life Science			Physical Science			Investigating Practices			Sensemaking Practices			Critiquing Practices		
State	58	31	11	60	29	12	54	37	9	55	37	7	60	29	11	55	33	12
Metuchen	47	38	15	39	41	20	37	48	15	39	46	15	40	44	16	38	41	21

Key: % below expectations
 % near/met expectations
 % above expectations



Science Performance Glows

- Grade 5
 - Metuchen outperformed the state in all skill and content categories
 - Strongest Content Area: Physical Science
 - Strongest skill area: Critiquing Practices (All Areas- performed with 1% point in each category - Investigating, Sensemaking, and Critiquing)



Science Performance Grows

- Grade 5
 - Weakest content area is Earth & Space Science
 - Weaker performance of Hispanic (n not large enough in other minority groups to make a conclusion) and economically disadvantaged students



Grade 8: Science Proficiencies Content and Skill Categories

	Earth & Space Science			Life Science			Physical Science			Investigating Practices			Sensemaking Practices			Critiquing Practices		
State	62	34	4	70	23	7	67	27	6	63	32	5	71	23	5	63	30	8
Metuchen	42	47	11	53	31	16	49	39	13	47	43	10	56	34	11	44	38	18

Key: % below expectations
 % near/met expectations
 % above expectations



Science Performance Glows

- Grade 8
 - Metuchen outperformed the state in all skill and content categories.
 - Strongest content area: Earth & Space Science.
 - Strongest skill area: Critiquing practices.



Science Performance Grows

- Grade 8
 - Weakest content area is Life Science, which was taught to this cohort during the 20-21 school year.
 - Weakest Skill is Sensemaking Practices.
 - Weaker performance in minority and economically disadvantaged students.



Science Strategies for Success

- Emphasize hands-on phenomena based instruction.
- Continue to develop real-world problem solving through implementation of STEM projects.
- Incorporate Climate Change into various instructional units and into STEM projects. The NJDOE is emphasizing the importance of Climate Change instruction.
- Provide ongoing opportunities for students to develop sense-making skills through Claim-Evidence-Reasoning and modeling activities.
- Assess students in all content areas in Grade 8. Remediate as data suggests is necessary.
- Provide students practice with scenario based questions.

Metuchen High School

**Edward C. Porowski,
Principal**

**Brian Stike,
Assistant Principal**





Differential between MHS and State Science Proficiencies 2019 to 2022

	2019% Prof. State	2019% Prof. Metuchen	Differential	2022% Prof. State	2022% Prof. Metuchen	Differential
Grade 11 2022 n=175	27.3	47.1	19.8	29.0	52.0	23.0



Science Proficiencies Content and Skill Categories

	Earth & Space Science			Life Science			Physical Science			Investigating Practices			Sensemaking Practices			Critiquing Practices		
State	54	35	12	56	29	15	56	30	14	55	35	10	55	29	16	56	30	14
Metuchen	31	46	23	31	42	27	34	41	25	30	50	19	31	37	32	33	46	21

Key: % below expectations
 % near/met expectations
 % above expectations



Science Performance Glows

- Grade 11
 - Metuchen improved passing performance by nearly 5% since 2019 despite pandemic impacts.
 - Metuchen increased the differential versus the state performance during that time.
 - Metuchen outperformed the state in all skill and content categories.
 - Content areas are fairly consistent with Life Science being slightly stronger.
 - Strongest skill area: Sensemaking Practices is noticeably stronger.



Science Performance Grows

- Grade 11
 - Continue to address to improve performance for all students, especially those that fall below proficiency levels.



Science Strategies for Success

- Emphasize hands-on phenomena based instruction.
- Continue to develop real-world problem solving through implementation of STEM projects.
- Incorporate Climate Change into various instructional units and into STEM projects. The NJDOE is emphasizing the importance of Climate Change instruction.
- Provide ongoing opportunities for students to develop sense-making skills through Claim-Evidence-Reasoning and modeling activities.
- Assess students in all content areas in Grade 8. Remediate as data suggests is necessary.

Thank you!