



SCIENCE & TECHNOLOGY

PRESENTATION TO THE BOARD OF EDUCATION

NOVEMBER 30, 2023

DR. TERESA MCGRATH

DISTRICT COORDINATOR



OVERVIEW



Science/Technology Program
Overview K-12



AP Science Exam Data



Budget



GREAT THINGS ARE HAPPENING!

ELEMENTARY SCIENCE



ELEMENTARY PLTW- NEW UNITS ADOPTED

Kindergarten	First	Fourth	Fifth
Sunlight and Weather	Light and Sound	Earth: Human Impact and Natural Disasters	Earth's Water and Interconnected Systems
Living Things: Needs and Impacts		Earth: Past, Present, and Future	Ecosystems: Flow of Matter and Energy
Pushes and Pulls		Energy: Conversion	Matter: Properties and Reactions
		Organisms: Structure and Function	Patterns in the Universe

Required Labs implemented in grades 3, 4, 5, 6, 7

EXCITING UPDATES

Scheduling efficiencies resulted in two changes:

- 1) All second-grade classes in the district are supported by the science lab weekly
- 2) Mr. O'Brien is supporting all district Kindergarten classes

Fifth Grade Science exam, computer-based, will be given for the first time on May 2 at Munsey Park and May 3 at Shelter Rock.





SECONDARY 7-12



Project Lead
the Way



Science
Research



Robotics Club

ENGINEERING PATHWAY- PLTW

Course	Introduction to Engineering	Aerospace Engineering	Principles of Engineering	Computer Integrated Manufacturing
Enrollment	64	34	29	22
Weighting	none	0.25	0.25	0.25
Credit from RIT	Yes	No	Yes	Yes

SCIENCE RESEARCH

Course	Introduction to Science Research	Advanced Science Research I/II	STS Prep
Enrollment	34	49	14
Science Fairs	6	9	6 + Regeneron
Writing Competitions /Scholarships	8	13	23

ROBOTICS CLUB

Advisors appointed Nov. 16

Student announcements have begun

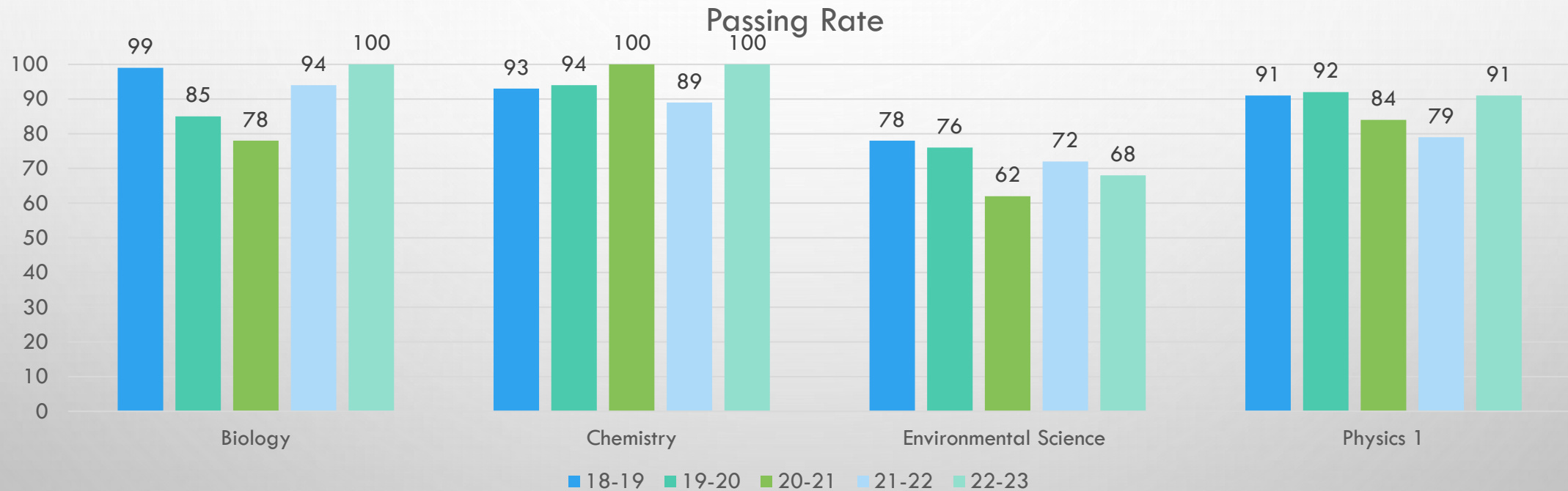
Hoping to compete in at least one competition this year



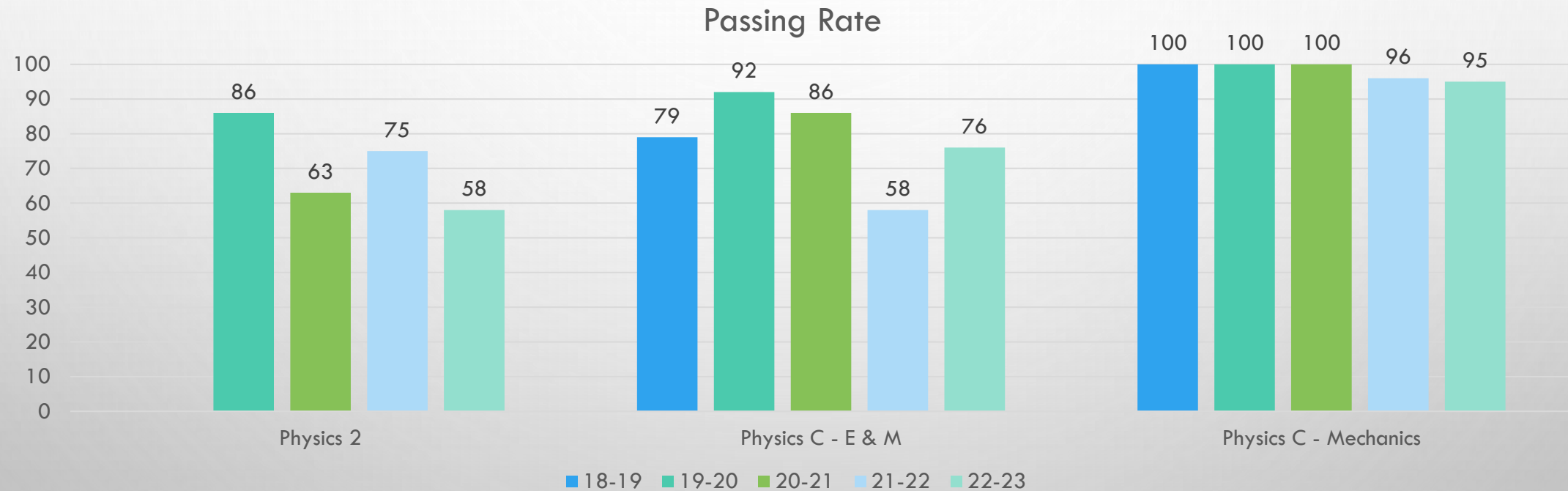
DATA

ADVANCED PLACEMENT SCIENCE EXAMS

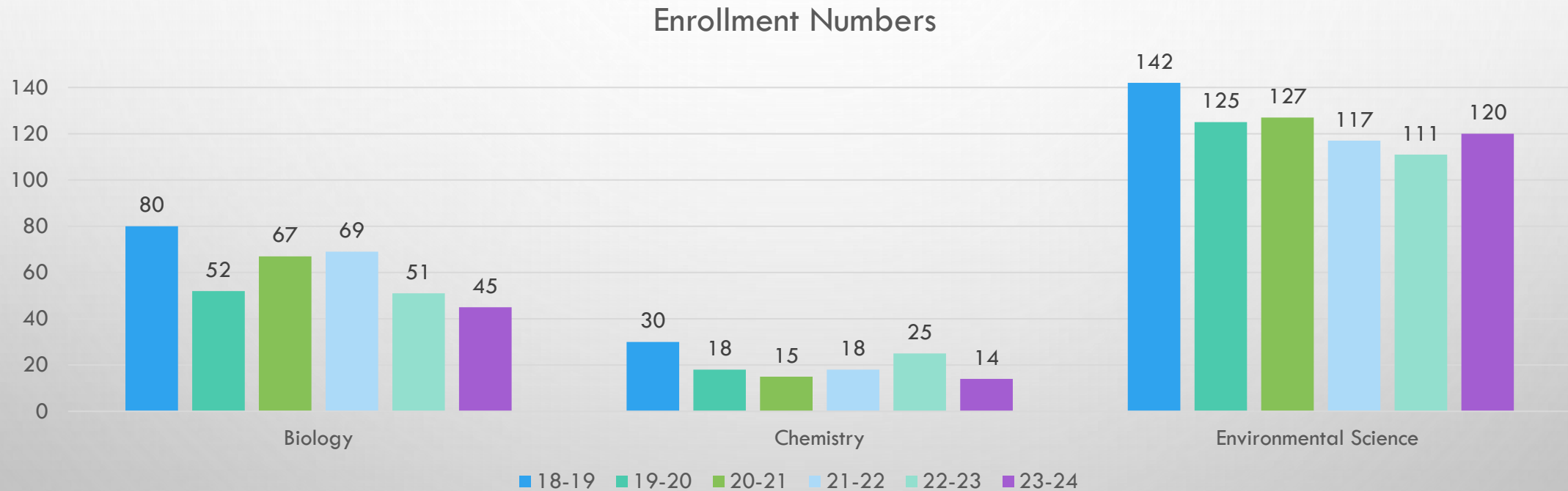
AP SCIENCE EXAMS – 5 YEAR COMPARISON



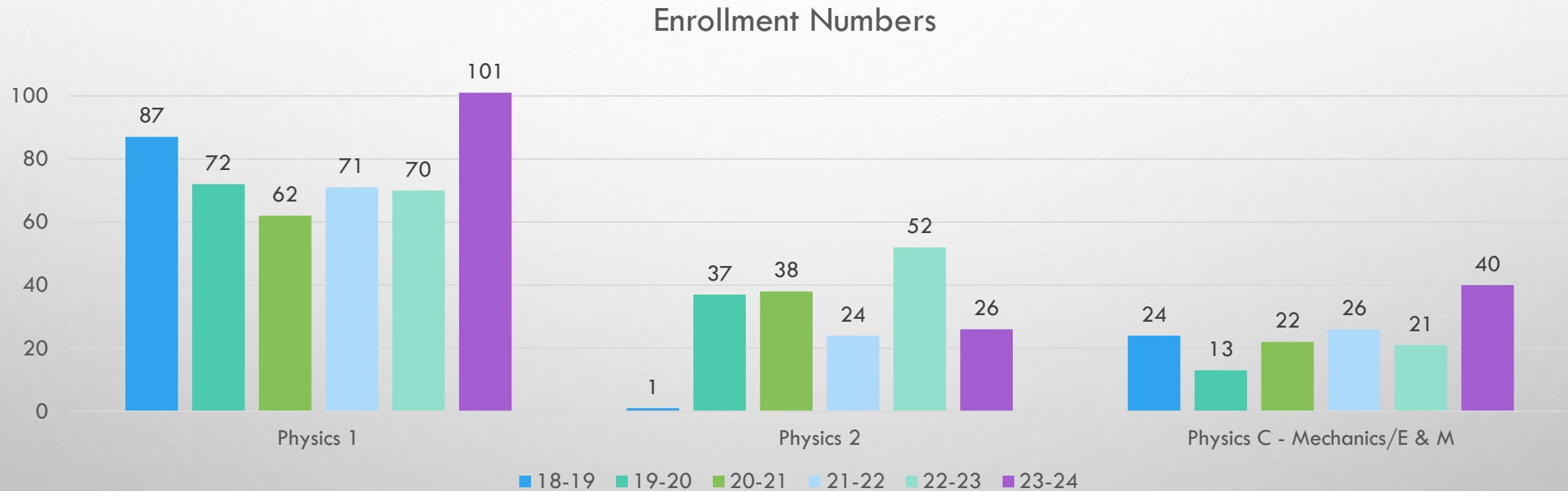
AP SCIENCE EXAMS – 5 YEAR COMPARISON



AP SCIENCE EXAMS – 5 YEAR COMPARISON



AP SCIENCE EXAMS – 5 YEAR COMPARISON



CURRENT BUDGET OVERVIEW

BREAKDOWN OF FTE

29.2 FULL TIME FTE

- 2.0 TEACHER ASSISTANTS
- 27.2 TEACHERS

SALARY TOTAL: \$3,229,207

E	L	N	O
MANHASSET UFSD			
TECHNOLOGY & SCIENCE BUDGET TRACKING			
2023.2024			
Description	Budget	Expensed YTD	Balance
TECHNOLOGY & SCIENCE	\$ 166,758.56	\$ 105,698.31	\$61,060.25
Equipment - Technology - MS	\$ 500.00	\$ -	\$500.00
Equipment - Instructional Technology-STEM	\$ 3,135.00	\$ -	\$3,135.00
Repair/Service - Equipment - Technology	\$ 500.00	\$ -	\$500.00
Student Particip. Fees - Technology-STEM	\$ 4,800.00	\$ 3,200.00	\$1,600.00
Supplies - Instructional Technology - MS	\$ 4,100.00	\$ 862.26	\$3,237.74
Supplies -Technology - STEM	\$ 50,550.00	\$ 41,945.88	\$8,604.12
Equipment - Instructional - Science - HS	\$ 10,287.00	\$ 9,751.20	\$535.80
Repair/Service - Equipment - Science - MP	\$ 400.00	\$ -	\$400.00
Repair/Service - Equipment - Science - SR	\$ 400.00	\$ -	\$400.00
Repair/Service - Equipment - Science - MS	\$ 1,000.00	\$ -	\$1,000.00
Repair/Service - Equipment - Science - HS	\$ 1,935.00	\$ -	\$1,935.00
Miscellaneous Contractual - Science - MP	\$ 200.00	\$ -	\$200.00
Miscellaneous Contractual - Science - SR	\$ 300.00	\$ -	\$300.00
Miscellaneous Contractual - Science - MS	\$ 250.00	\$ -	\$250.00
Miscellaneous Contractual - Science - HS	\$ 4,500.00	\$ -	\$4,500.00
Student Particip. Fees - PLTW	\$ 950.00	\$ 950.00	\$0.00
Student Particip. Fees - PLTW	\$ 950.00	\$ 950.00	\$0.00
Student Particip. Fees - Science - MS	\$ 1,625.00	\$ 950.00	\$675.00
Student Particip. Fees - Science - HS	\$ 21,600.00	\$ -	\$21,600.00
Textbooks - Science - MP	\$ 1,200.00	\$ 1,084.22	\$115.78
Textbooks - Science - SR	\$ 800.00	\$ 133.90	\$666.10
Textbooks - Science - MS	\$ -	\$ -	\$ -
Textbooks - Science - HS -- \$2000 ORIGINAL BUDGET	\$ 2,500.00	\$ 2,495.90	\$4.10
Supplies - Instructional - Science - MP	\$ 13,199.45	\$ 11,923.65	\$1,275.80
Supplies - Instructional - Science - SR	\$ 10,457.75	\$ 7,195.11	\$3,262.64
Supplies - Instructional - Science - MS	\$ 3,500.00	\$ 1,187.47	\$2,312.53
Supplies - Instructional - Science - HS	\$ 26,426.00	\$ 22,375.36	\$4,050.64
Copier Lease - Science \$674.00 - ORIGINAL BUDGET	\$ 693.36	\$ 693.36	\$0.00
TECHNOLOGY & SCIENCE TOTAL:	\$ 166,758.56	\$ 105,698.31	\$61,060.25

BUDGET BREAKDOWN 23-24

Category	Budget
Supplies	\$108,233
Equipment	\$13,922
Participation	\$29,925
Repair/Service	\$4,235
Textbooks	\$4,000
Contractual	\$5,150
Total Budget	\$165,465

ELEMENTARY BUDGET ITEMS 23-24

Description	School	Amount
Robotics Materials for 1 class	Munsey Park	\$3090
PLTW Units for K and 1	Munsey Park	\$3295
PLTW Units for K and 1	Shelter Rock	\$2710
PLTW Units for 4 and 5	Munsey Park	\$1600
PLTW Units for 4 and 5	Shelter Rock	\$1600
Total	Both Elementary Schools	\$12,295

SECONDARY BUDGET ITEMS 23-24

Description	Course	Amount
Upgrade of Microcontrollers	Engineering, PLTW	\$27,900
Robotics Supplies from VEX*	Robotics Club	\$35,965
Dissecting Microscopes	Science Research	\$6,012
Compound Microscopes	Living Environment	\$3,740
Remove Chemicals, BOCES contract	Science Research	\$4,500
Table Saw	Engineering/PLTW	\$2000
Total (23-24 budget only)	All Secondary	\$44,152

* Pre-purchased with fund balance, 22-23

PROPOSED BUDGET 24-25

REQUESTING ADDITION OF 1.8 FTE

BUDGET IMPACT: \$135,016*

0.8 MS TECHNOLOGY

INCREASE TO FULL SCHEDULE FOR SECOND
MIDDLE SCHOOL TEACHER.

1.0 TEACHER ASSISTANT (RESEARCH)

SUPPORT GROWING RESEARCH PROGRAM.

A	B	C	D	E	F	G	H	I	J
	2022-2023	2022-2023		2023-2024		2024-2025		Budget Increase/Decrease Req-Current	Budget Increase/Decrease SDifference/Current
TECHNOLOGY & SCIENCE	Budget	Expenditure		Budget		Requested Budget		\$ Difference	% Difference
Equipment - Technology - MS	\$500.00	\$ -		\$500.00		\$500.00		\$ -	0%
Equipment - Instructional Technology-STEM	\$3,135.00	\$1,588.60		\$3,135.00		\$3,135.00		\$ -	0%
Repair/Service - Equipment - Technology	\$500.00	\$ -		\$500.00		\$500.00		\$ -	0%
Student Particip. Fees - Technology-STEM	\$3,200.00	\$3,200.00		\$4,800.00		\$4,800.00		\$ -	0%
Supplies - Instructional - Technology - MS	\$8,000.00	\$3,577.99		\$4,100.00		\$4,100.00		\$ -	0%
Supplies - Technology - STEM	\$43,040.00	\$74,903.65		\$50,550.00		\$21,500.00		-\$29,050.00	-57%
								\$ -	0%
Equipment - Instructional - Science - HS	\$4,275.00	\$3,552.72		\$10,287.00		\$7,000.00		-\$3,287.00	-32%
Repair/Service - Equipment - Science - MP	\$400.00	\$400.00		\$400.00		\$400.00		\$ -	0%
Repair/Service - Equipment - Science - SR	\$400.00	\$ -		\$400.00		\$400.00		\$ -	0%
Repair/Service - Equipment - Science - MS	\$2,600.00	\$275.00		\$1,000.00		\$1,000.00		\$ -	0%
Repair/Service - Equipment - Science - HS	\$5,000.00	\$ -		\$1,935.00		\$1,935.00		\$ -	0%
Miscellaneous Contractual - Science - MP	\$200.00	\$ -		\$200.00		\$200.00		\$ -	0%
Miscellaneous Contractual - Science - SR	\$200.00	\$ -		\$200.00		\$200.00		\$ -	0%
Miscellaneous Contractual - Science - MS	\$250.00	\$ -		\$250.00		\$250.00		\$ -	0%
Miscellaneous Contractual - Science - HS	\$700.00	\$ -		\$4,500.00		\$700.00		-\$3,800.00	-84%
Student Particip. Fees - PLTW	\$950.00	\$950.00		\$950.00		\$950.00		\$ -	0%
Student Particip. Fees - Science - MS	\$1,850.00	\$1,744.49		\$1,625.00		\$1,625.00		\$ -	0%
Student Particip. Fees - Science - HS	\$18,500.00	\$19,225.96		\$21,600.00		\$21,600.00		\$ -	0%
Textbooks - Science - MP	\$1,200.00	\$13,280.03		\$1,200.00		\$1,200.00		\$ -	0%
Textbooks - Science - SR	\$800.00	\$12,640.34		\$800.00		\$800.00		\$ -	0%
Textbooks - Science - MS	\$ -	\$ -				\$ -		\$ -	0%
Textbooks - Science - HS	\$14,217.30	\$14,927.33		\$2,000.00		\$5,165.68		\$3,165.68	158%
Supplies - Instructional - Science - MP	\$22,644.25	\$23,274.19		\$13,199.00		\$14,744.72		\$1,545.72	12%
Supplies - Instructional - Science - SR	\$21,044.25	\$20,706.97		\$10,458.00		\$13,099.72		\$2,641.72	25%
Supplies - Instructional - Science - MS	\$3,500.00	\$1,704.18		\$3,500.00		\$3,500.00		\$ -	0%
Supplies - Instructional - Science - HS	\$26,426.00	\$28,348.59		\$26,426.00		\$30,000.00		\$3,574.00	14%
Copier Lease - Science	\$674.00	\$673.44		\$674.00				-\$674.00	-100%
TECHNOLOGY & SCIENCE TOTAL:	\$185,155.80	\$225,923.48		\$166,139.00		\$140,255.12		-\$25,883.88	-16%

*INDIVIDUAL INSURANCE COVERAGE

24-25 FTE'S WILL BE DETERMINED AFTER STUDENT REQUESTS ARE
REVIEWED ON FEBRUARY 15

BUDGET BREAKDOWN 24-25

Category	Total Budget	Compare to 23-24
Supplies	\$86,945	-\$21,288
Equipment	\$10,635	-\$3,287
Participation	\$29,925	Same
Repair/Service	\$4,235	Same
Textbooks	\$7166	+\$2666
Contractual	\$1,350	-\$3,900
Total Budget	\$140,255	-\$25,210

ELEMENTARY BUDGET ITEMS 24-25

Item and Description	School	Amount
Weather Station	Munsey Park	\$1000
Weather Station	Shelter Rock	\$1000
Microscopes	Munsey Park	\$1864
Microscopes	Shelter Rock	\$1864
PLTW Units for First Grade	Munsey Park	\$928
PLTW Units for First Grade	Shelter Rock	\$928
Additional PLTW kits and supplies for existing units	Munsey Park	\$2883
Additional PLTW kits and supplies for existing units	Shelter Rock	\$3713
Total	Both Elementary Schools	\$14,180

SECONDARY BUDGET ITEMS 24-25

Budget Item	Description	Amount
Textbooks, 15 th Edition	AP Physics C	\$5,166
Conferences, AP Institutes	Department Wide	\$7,250
BOCES Workshops	Department Wide	\$6000
Equipment - Engineering	Technology	\$3135
Curriculum Writing	Life Science: Biology, Earth and Space Science, Organic Chemistry (elective), Applied Physics 2: The Thermo-Electro-Magnetic World	\$13,147
Science Equipment	Science Research, additional Microscopes to support growing program	\$6000
Total	All Secondary	\$40,698



THANK YOU

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