Elizabeth SCHOOL DISTRICT

To: Elizabeth School Board of Directors
From: William Dallas, Assistant Superintendent
CC: Dan Snowberger, Superintendent
Jaimee Glazebrook, Assistant to the Board of Directors

Date: April 22, 2024

RE: K-8 Grade Science Resource Adoption

This letter is to formally recommend Discovery Education Science to the Elizabeth School District Board of Directors for adoption as kindergarten through 8th grade science resources. Following a lengthy review of multiple potential science resources that included teachers completing trials of the resources in classrooms with students and the use of a multifaceted decision analysis process, Discover Education Science resources was chosen as the preferred resource for both elementary and middle school. Following this selection, a recommendation was provided to the Board Curriculum Review Committee in March, which resulted consensus support of a formal recommendation.

This recommendation is for a five-year adoption that includes the technology book for K-8, Mystery Science for K-5, laboratory kits K-8, one year of perishable laboratory consumables, and printing/copying permission for all materials.

This recommendation includes the following specifics and estimated costs:

First Year Only Costs (Total $53,959)

- Elementary and middle school laboratory kits with one year of consumable supplies - $29,309
- 12 hours of professional learning - $8,400
- K-8 classroom set of consumables (Estimate of 650 books) - $16,250
    - K-2 classrooms – one-one consumable ratio
    - 3-8 classrooms – one set (25) per classroom

Reoccurring Costs (Total $27,237)

- K-8 technology book registration and Mystery Science elementary resources - $27,237

Included with this memorandum is a copy of the decision analysis process for your review, along with a summary of public comments provided after a 30-day window.

Sincerely,

William Dallas

William Dallas, Ph.D.
Assistant Superintendent of Curriculum and Instruction
Elizabeth School District

Decision Analysis (What course of action do I take?)

Type of Situation	Decisions
Typical Pitfall	Jumping to alternatives
Process	*Decision Analysis*
Steps	1. State the decision 2. Establish and classify the objectives 3. List alternatives 4. Evaluate alternatives 5. Consider the risks 6. Trust your work

Decision Analysis	To make a decision or recommendation	- What are we trying to decide? - What is important to consider in selecting an alternative? - Are some objectives more important than others? - What choices or alternatives do we have? - Does this alternative meet the more important objectives? - How well does this alternative meet each of the other objectives? - What are the risks with each alternative? - Which alternative should we choose?	- What is the compelling need this decision or recommendation is addressing? - Who was involved in making this decision or recommendation? - What criteria were used to make this decision or recommendation? - Which criteria were judged as more important than others? - What other options were considered? - What are the risks associated with implementing the recommended option? - What are the risks with implementing the other options?

Decision Analysis (What course of action do I take?)

Decision Statement: What are we trying to decide? _____Recommendation Science Resource Adoption_____

Objectives 1. **What results do we want or need?** 2. **What resources are available?** 3. **What restrictions exist?** 4. **What is important to consider in choosing an alternative?**	**Establish and Classify Objectives** 1. **Which objectives are mandatory? Of these, how will we measure these** 2. **Which wants are most important—give it a ten (10)? Compared to the most important wants, how important is each other want—give it a 1-10**	**Alternatives: What Choices are available?** • Against the **Musts** –Does this alternative meet this MUST? Yes or NO • Against the **Wants** – How well does this alternative meet this want? Which alternative best meets the want? (Give it a ten.) Compared to the top performer, how well do the others meet the want? (0-10)			
		Alternative One [redacted] (Grades K-8)	**Alternative Two** Discovery Ed Science (Grades K-8)	**Alternative Three** [redacted] (Grades K-5)	**Alternative Four** [redacted] (Grades 6-8)
Alignment to the NGSS		MS - 336 ES - 240	MS - 354 ES -367		
There are well-established elements of Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts in lessons.	10	MS - 10 ES - 5	MS - 9 ES - 10	2	5
Units fit together coherently and build on each other.	7	MS - 10 ES - 8	MS -10 ES - 10	8	3
Lessons demonstrate connectivness to a variety of science disciplines.	3	MS - 10 ES - 7	MS - 8 ES - 9	2	7
Lessons provide grade-appropriate connections to math, ELA, Social Studies, and STEM.	7	MS - 8 ES - 9	MS -10 ES - 10	4	2
Lessons provide opportunities to construct and use specific elements of the crosscutting concepts to make sense of the phenomena or design solutions.	10	MS - 8 ES - 5	MS -10 ES - 10	3	4

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Instructional Supports		MS - 278 ES - 226	MS - 341 ES -336		146
Instructional supports engage students in authentic and meaningful scenarios that reflect the practice of science and engineering as experienced in the real world.	6	MS - 10 ES - 6	MS - 10 ES - 10	5	6
Instructional supports provide a deeper understanding of the practices, disciplinary core ideas, and crosscutting concepts by identifying and building on students' prior knowledge.	9	MS - 7 ES - 7	MS - 9 ES - 10	8	6
Instructional supports provide opportunities for students to express, clarify, justify, interpret, and represent their ideas.	5	MS - 10 ES - 10	MS - 7 ES - 7	6	5
Instructional supports provide guidance for teachers to support differentiated instruction in the classroom.	7	MS - 7 ES - 4	MS - 10 ES - 10	4	7
Monitoring Student Progress		MS - 278 ES -226	MS - 182 ES -179		220

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Assessments are aligned to the three-demisional learning.	7	MS - 8 ES - 7	MS - 10 ES - 8	X	8
Lessons or unit support elicits direct, observable evidence of students' performance of practices connected with their understanding of core ideas and cross-cutting concepts.	9	MS - 10 ES - 8	MS - 10 ES -10	X	7
Includes aligned rubrics and scoring guidelines that provide guidance for interpreting student performance along with three dimensions to support teachers in (a) planning instruction and (b) providing ongoing feedback to students.	3	MS - 9 ES - 9	MS - 8 ES -5	X	10
Resources include pre-, formative, summative, and self-assessment measures that access three-dimensional learning.	5	MS - 8 ES - 4	MS - 10 ES - 10	X	7

Decision Analysis (What course of action do I take?)

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Resources provide multiple opportunities for students to demonstrate the performance of practices connected with their understanding of disciplinary core ideas and crosscutting concepts and receive feedback.	3	MS - 10 ES -7	MS - 6 ES - 8	X	7
School Preferences		MS - 187 ES - 140	MS - 386 ES -393		149
Ease of navigation.	10	MS - 10 ES -5	MS - 10 ES -10	X	6
Pacing (Viability of Curriculum)	6	MS - 6 ES - 4	MS - 8 ES - 7	x	6
Flexibility	8	MS - 3 ES - 2	MS - 8 ES - 7	x	10
Prep time	10	MS - 7 ES - 5	MS - 9 ES -7	x	2
Hands-on activities	8	MS - 7 ES - 3	MS - 7 ES -10	x	7
Access to lab resources	5	MS - 8 ES - 7	MS - 8 ES - 9	x	5

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		[redacted] (Grades K-8)	Discovery Ed Science (Grades K-8)	[redacted] (Grades K-5)	[redacted] (Grades 6-8)
	Total Score	MS - 1,079 ES - 832	MS - 1,263 ES -1,275		792

Consider the Risks and Benefits -- If we choose this alternative, what could go wrong and what could go right?

Alternative	Risks	Benefits
Alternative One: Discover Education	• Financial sustainability • Training after year 1 • Fidelity of implementation	• Familiar to students and teachers in K-5 (Mystery Science) • High degree of alignment to NGSS • Strong vertical alignment • Customizable for teacher independence
Alternative Two: [redacted]	• Financial sustainability • Training after year 1 • Fidelity of implementation	• Aligns with literacy resources (K-5) • Alignment with NGSS • Slightly more costly over five years

Trust your work --- Pick a winner: Which alternative provides the best balance of benefit and risk? Which Alternative should we choose?

_____Discovery Education Science Resources _____