Edina Public Schools
DEFINING EXCELLENCE

School Board Work Session
Tuesday, October 27, 2020, 5:00 PM
Virtual Meeting

I. **Determination of Quorum and Call to Order**

II. **Reports / Discussion**
   A. Board Meeting Protocols
   Presenter(s): Erica Allenburg, Board Chair

   B. Enrollment
   Description: This report provides enrollment and class size information for Edina Public Schools for the past school year, and was updated with October 1, 2020, student counts.
   Presenter(s): Dr. John Schultz, Superintendent; Dr. Randy Smasal, Assistant Superintendent

   C. Middle School Science Curriculum: Amplify
   Description: This report includes information about the new Science standards the Minnesota Department of Education has passed into statute and the recommended adjustments for implementation that MDE has created. It also includes a summary of the Middle Level Science Design Team process, including the experience of piloting Science curriculum materials at the middle level and the decision making process that has led to the recommendation to adopt the Amplify Science curriculum for use in Edina in grades 6-8.
   Presenter(s): Jody De St. Hubert, Director of Teaching and Learning

III. **Leadership Updates**
   COVID-19 Testing Ad Hoc Committee *(walked in, see Minutes)*

TITLE: 2020-2021 Enrollment and Class Size Information Report

TYPE: Discussion

PRESENTER(S): Dr. Randy Smasal, Assistant Superintendent; Greg Guswiler, Coordinator of Student Information Systems

BACKGROUND: This report provides enrollment and class size information for Edina Public Schools for the past school year, and was updated with October 1, 2020, student counts.

RECOMMENDATION: Accept the report and consider the listed recommendations.

PRIMARY ISSUE(S) TO CONSIDER: Consider whether any changes in program would be desirable for either retaining resident families and/or addressing Board strategic goals.

ATTACHMENTS: *Please note that links open best using a Chrome browser.*

1. Report

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Section I
Enrollment Information

The count considered to be "official" for the 2020-2021 school year was taken on October 1, 2020.

Students attending school in Edina include students who live in Edina, students who live in the city of Edina but whose homes are actually in a surrounding school district, students attending our schools through the "Minneapolis Transportation" program, and the Open Enrollment program.

Data in Section I highlights student enrollment information for the 2020-2021 school year includes the following:

Figure 1-1:   2020-2021 Student Enrollment by Building
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                Public
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Figure 1-15:   Comparison of Enrollment Changes in Near Districts for FY 21

Figure 1-1:   2020-2021 Student Enrollment by Building

EDINA PUBLIC SCHOOLS
OFFICIAL BUILDING ENROLLMENT

Fall 2020-2021
(October 1, 2020)

		KG	1	2	3	4	5	**Total**
20-21 Concord		111	109	118	121	122	118	**699**
20-21 Cornelia		84	99	89	88	96	95	**551**
20-21 Countryside		90	96	90	97	104	96	**573**
20-21 Creek Valley		92	91	97	93	98	105	**576**
20-21 Highlands		87	89	87	86	95	86	**530**
20-21 Normandale		127	107	106	105	103	103	**651**
Totals		**591**	**591**	**587**	**590**	**618**	**603**	**3580**

	6	7	8	9	10	11	12	**Total**
20-21 South View	333	333	303					**969**
20-21 Valley View	334	349	328					**1011**
20-21 Edina High School				666	692	666	654	**2678**
Totals	**667**	**682**	**631**	**666**	**692**	**666**	**654**	**4658**

Enrollment Comparison

	10/1/2019	**10/1/2020**
Grade K-5	**3659**	**3580**
Grade 6-8	**1982**	**1980**
Grade 9-12	**2696**	**2678**
Totals K-12	**8337**	**8238**

Preschool	300	129
Early Childhood Special Ed	132	119

The most significant enrollment declines over the past year were in Elementary (-79), while middle schools (-2) and high school (-18) had a very small and slight drop.

Figure 1-2:   Projected Daily Membership from 5/30/2020 vs. Actual 10/01/20

Grade	Projection From 5/30/20	Actual Enrollment on 10/01/2020	Difference
KG	585	591	+6
1	611	591	-20
2	605	587	-18
3	625	590	-35
4	649	618	-31
5	628	603	-25
6	688	667	-21
7	660	682	22
8	656	631	-25
9	680	666	-14
10	693	692	-1
11	648	666	18
12	661	654	-7

Projections were surpassed in grades 7 and 11. All other grade levels came in
below projections. In K one section was added at ND elementary school so although the
projection was met the projection did not include adding the additional section.

Figure 1-3:   2019-2020 vs. 2020-2021 Change in Enrollment by Grade Level

ACTUAL 19 vs. ACTUAL 20

Grade Level	Actual Enrollment 10/01/2019	Actual Enrollment 10/1/2020	Difference Actual FY 20 VS Actual FY 21
Kindergarten	579	591	12
Grade 1	592	591	-1
Grade 2	596	587	-9
Grade 3	629	590	-39
Grade 4	612	618	6
Grade 5	651	603	-48
Total K-5	**3659**	**3580**	-79
Grade 6	686	667	-19
Grade 7	641	682	41
Grade 8	655	631	-24
Total 6-8	**1982**	**1980**	-2
Grade 9	701	666	-35
Grade 10	660	692	32
Grade 11	666	666	0
Grade 12	669	654	-15
Total 9-12	**2696**	**2678**	-18
Total K-12	**8337**	**8238**	**-99**
Graduating Senior Class	**640**		
Incoming Kindergarten Class	**591**		

Actual year over year enrollments increased in grades K, 4, 7, and 10 from Oct. 2019 to Oct. 2020, while decreasing in grades 1, 2, 3, 5 ,6, 8, 9 and 12. Overall all actual enrollments (Oct. 1, 2020) are -79 in elementary, -2 in middle school and -18 in high school as compared to the previous year (Oct. 2019).

Figure 1-4:   2019-2020 vs. 2020-2021 Cohort Comparison

All Students Cohort Comparison

19-20 Grade	Number of Students	20-21 Grade	Number of Students	Difference
KG	579	1	591	12
1	592	2	587	-5
2	596	3	590	-6
3	629	4	618	-11
4	612	5	603	-9
5	651	6	667	16
6	686	7	682	-4
7	641	8	631	-10
8	655	9	666	11
9	701	10	692	-9
10	660	11	666	6
11	666	12	654	-12
12	669	NA	NA	NA

Figure 1-5: 2019-2020 vs. 2020-2021 Resident Cohort Comparison

Resident Students Cohort Comparison

19-20 Grade	Number of Students	20-21 Grade	Number of Students	Difference
KG	502	1	496	-6
1	524	2	494	-30
2	521	3	504	-17
3	528	4	522	-6
4	545	5	478	-67
5	501	6	523	22
6	548	7	541	-7
7	572	8	505	-67
8	522	9	500	-22
9	518	10	534	16
10	551	11	529	-22
11	539	12	546	7
12	556	NA	NA	NA

Figure 1-6:   2019-2020 vs. 2020-2021 Resident Enrollment

	2019-2020	2020-2021	Difference
Elementary	3143	2963	-180
Middle School	1612	1569	-43
High School	2197	2109	-88
Total	6952	6641	-311

Resident enrollment decreased over the past year by 311 students.
Note:
- Resident Graduating Seniors 2019-20:   525 (78.3% Market Share)
  - Resident Student Pool   702
- Resident Incoming Kindergarten 2020-21:   469 (80.4% Market Share)
  - Resident Student Pool   583

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Figure 1-7:   10 Year Resident Enrollment Trend
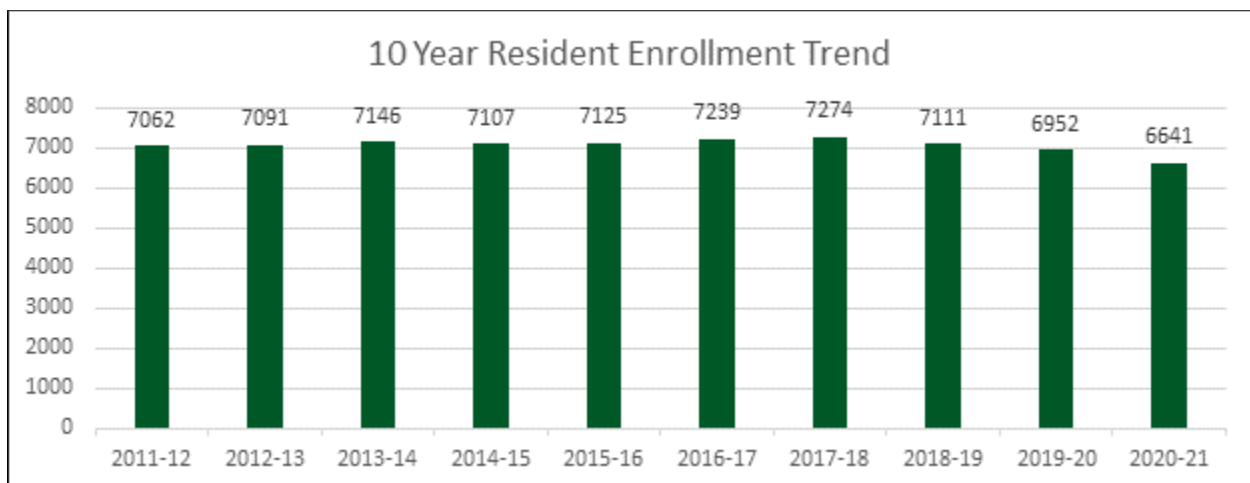
Resident enrollment increased by 212 students between the years of 2011-12 and 2017-18 and has declined by 633 students between the 3 years of 2017-2018 and 2020-2021.

Figure 1-8:   2019-2020 vs. 2020-2021 Open Enrollment

	2019-2020	2020-2021	Difference
Elementary	518	617	99
Middle School	370	411	41
High School	497	569	72
Total	1385	1597	212

Open enrollment has increased by 212 students over the past one year.

Figure 1-9:   10 Year Open Enrollment Trend
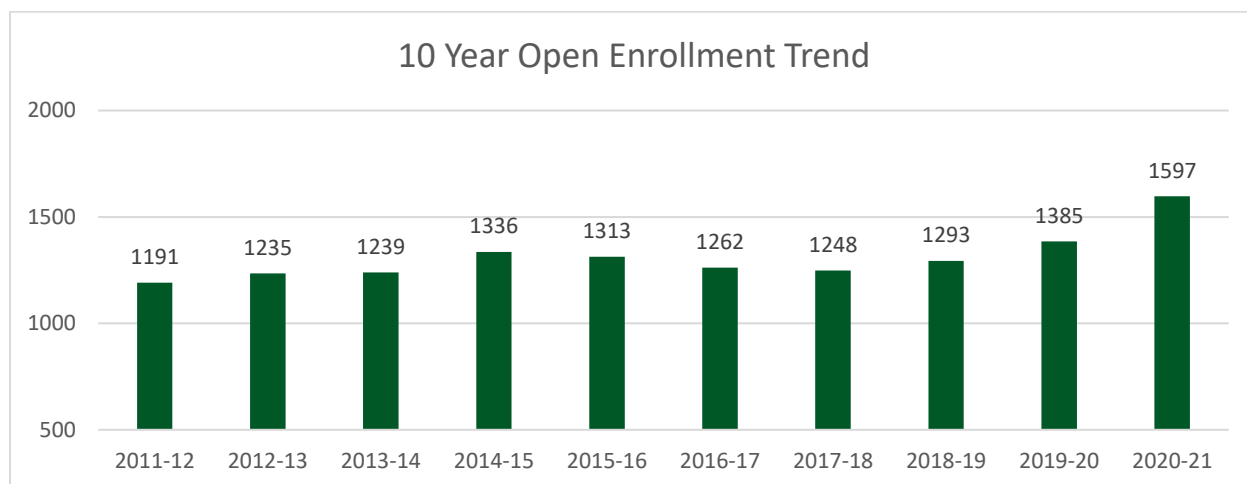
Open Enrollment increased by 406 students over the last 10 school years.

Figure 1-10:   2019-2020 vs. 2020-2021 Home School Districts of EPS Open Enrolled Students

Resident District	Open Enrollees	% of Total Open Enrollment	Open Enrollees	% of Total Open Enrollment	Difference
	2019-2020	2019-2020	2020-2021	2020-2021	
Minneapolis	503	36.32%	632	39.57%	129
Hopkins	192	13.86%	189	11.83%	-3
Richfield	253	18.27%	271	16.97%	18
St. Louis Park	97	7.00%	115	7.20%	18
Bloomington	133	9.60%	140	8.77%	7
Eden Prairie	71	5.13%	82	5.13%	11
Other	136	9.82%	168	10.52%	32
Total	1385	100%	1597	100.00%	212

In the past two years, the largest contributors to EPS open enrollment are the Minneapolis, Richfield and Hopkins communities respectively.
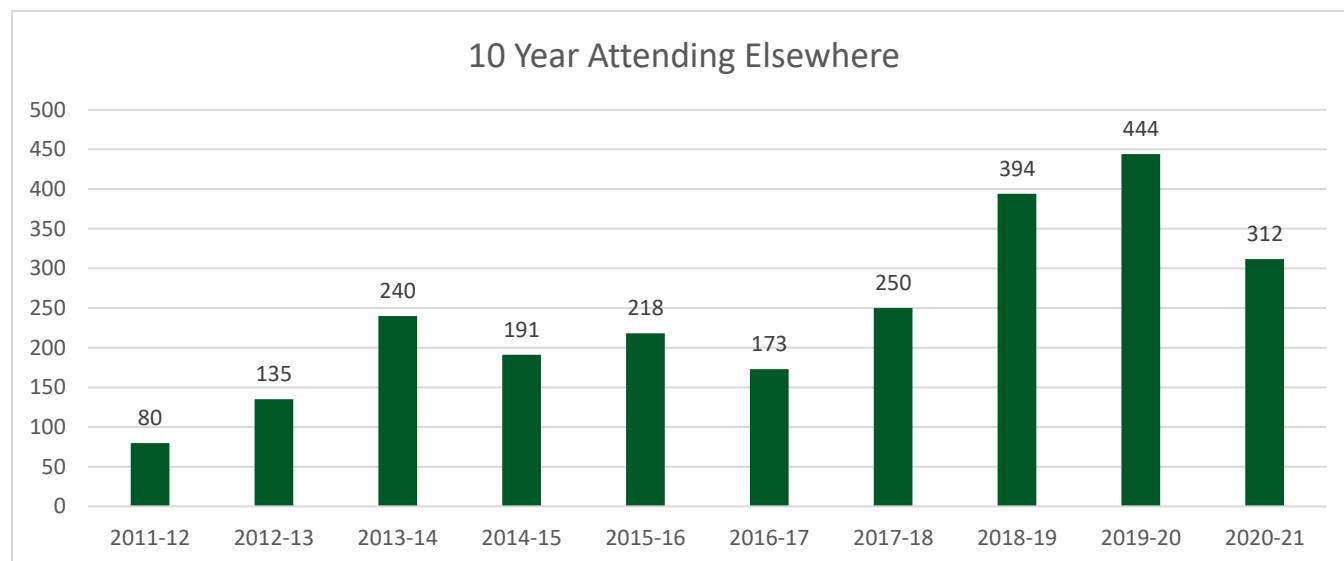
Figure 1-11:   2019-2020* vs. 2020-2021** Edina Public Schools Resident Students Attending Elsewhere

Other Public Schools	2019-2020*	2020-2021**	Difference
Seven Hills Preparatory Academy	50	49	-1
Minnetonka Public School District	41	46	5
Eagle Ridge Academy Charter School	51	42	-9
Hopkins Public School District	25	19	-6
Richfield Public School District	27	18	-9
Bloomington Public School District	33	17	-16
Intermediate School District 287	20	13	-7
Minneapolis Public School District	31	12	-19
Minnesota Transitions Charter School	18	9	-9
Eden Prairie Public School District	11	8	-3
Yinghua Academy	5	7	2
Orono Public School District	3	6	3
St. Louis Park Public School District	11	6	-5
Houston Public School District	8	6	-2
Lionsgate Academy	7	6	-1
SciTech Academy Charter School	8	6	-2
Districts with 5 or Fewer Edina Residents	95	42	-53
Total	444	312	-132

*2019-2020 Data taken from **EOY** 2019-2020 MDE's Residents Served Elsewhere Report. Oct. 1, 2019 was 335.
2020-2021 Data taken from Fall 2021 MDE's Residents Served Elsewhere Report (Note: This data requires that receiving schools have entered all necessary information.**)

Figure 1-12:   10 Year EPS Students Attending Elsewhere

10 Year Attending Elsewhere

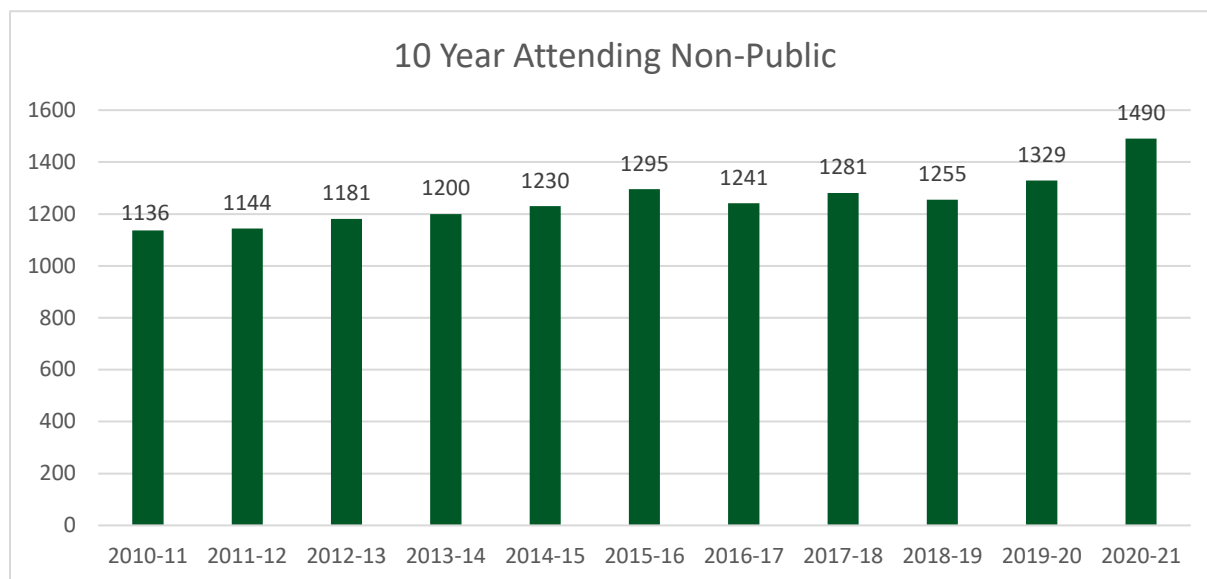| Year	Value
2011-12	80
2012-13	135
2013-14	240
2014-15	191
2015-16	218
2016-17	173
2017-18	250
2018-19	394
2019-20	444
2020-21	312

The number for 2020-21 was taken from the most recent MARSS state wide edit, to the state. Over the course of the year, this number for 2020-21 could continue to grow.

Figure 1-13:   2019-2020 vs. 2020-2021 Edina Public Schools Resident Students Attending Non Public

Non-Public Schools	2019-2020	2020-2021	Difference
Our Lady of Grace	350	413	63
Blake	201	208	7
Benilde St Margaret	192	195	3
Breck	156	173	17
Avail Academy	24	61	37
St Thomas Academy	47	50	3
Carondelet	34	46	12
Academy of Holy Angels	40	35	-5
Home School	28	30	2
Minnehaha Academy	27	27	0
Convent of the Visitation	20	25	5
Southwest Christian HS	12	21	9
Groves	23	20	-3
Holy Family Academy	12	18	6
Providence	10	18	8
St Paul Academy & Summit	17	17	0
Breakaway Academy	0	16	16
De La Salle	9	8	-1
Int. School of MN	9	7	-2
Bloomington Lutheran School	2	0	-2
King of Grace Lutheran	2	0	-2
Unknown	66	55	-11
Non-Public Schools with Less than 5 Students	13	47	34
Total	**1329**	**1490**	**161**

Figure 1-14:   10 Year EPS Student Attending Non-Public

10 Year Attending Non-Public

Year	Value
2010-11	1136
2011-12	1144
2012-13	1181
2013-14	1200
2014-15	1230
2015-16	1295
2016-17	1241
2017-18	1281
2018-19	1255
2019-20	1329
2020-21	1490

The number of EPS students attending non-public increased slightly over the last 9 years (193) and more significantly for fall of 20-21 (161).

Survey Results from Exiting Families: Click Here
Survey Questions used with Families: Click Here

Discussion of Exiting Family Survey Results:
- 228 exiting families were sent the exit survey.
- 131 responded (57% response rate)
- COVID and not enough face to face time was the primary reason (69 responses) cited for families leaving, followed by Curriculum (50 responses), Personalization (47 responses) and Culture and Climate (37 responses).
- Families cited local private (73 responses) and local parochial (29 responses) as the primary destinations.
- Avail Academy (15 students), Our Lady of Grade (14 students) and Benilde St. Margaret (13 students) were the top specific destination schools cited in the survey. Many others are listed with much smaller numbers.
- 38 families indicated their choice was permanent with the remaining families leaving their options open for a return.
- In these survey results, the majority of students leaving EPS are white (85%).
- Of the those who responded to the survey, we see a lower representation in G/T service (12.5%) and Students of Color (15%) leaving the district than what we would see in the district overall enrollment (G/T Service~18%, SOC~24%).
- Of those who responded to the survey, we see a consistent representation in Sp.Ed. (12.5%) as compared to the district overall enrollment in Sp.Ed. Services (~12%).

Figure 1-15: Comparison of Enrollment Changes in Near Districts for FY 21

District	Total Enrollment Decline From BY21 Budget Projection, # and %
Bloomington	-270 and -2.7%
Eastern Carver County Schools	-328 or -3.5%
Eden Prairie Schools	-87 or -1.0%
Edina Public Schools	-151 or -1.8%
Hopkins Schools	-113 or -2%
Mounds View Schools	-232 or -2%
Orono Schools	-116 or -4%
Wayzata Schools	-574 or -4.8%

Source: Association of Metropolitan School Districts (Draft 10/14/20)

Section II
Class Size Information

Elementary Class Size Guidelines	Desired Class Size Range	1 Hour Para Added for Three Students Over
Kindergarten	20-24	22
Grade 1	21-24	26
Grade 2	21-25	28
Grade 3	23-26	29
Grades 4-5	24-27	30
Grades 1-5 (CP)	28	N/A
Grade 1-5 (FI)	27	N/A

Secondary Class Size Guidelines	
Grade 6-9	27.2
Grades 10-12	30.9
Options Program	19-25

Elementary Staffing Guidelines
Elementary class size guidelines for Edina are calculated strictly on the basis of teacher/student ratio within the individual classroom. Specialist teachers and support staff are not calculated into the formula for determining average class size. A desired class size range is established for each elementary grade level. Ideally, each classroom class size would fall within this range.

Secondary Staffing Guidelines
Secondary school staffing is determined by an allocation of staffing hours per building, based on an average class size of 27.2 for grades 6-8 and 30.9 for grades 9-12. The class size range for the Options Program, located at the High School, will remain at 19-25 students. Principals determine the size of individual classes based on average daily membership enrollment data and needs of the building. Class size can vary based on the type of class and the number of hours that it is taught. Secondary schools do not receive additional paraprofessional help for large

classes. If the principal perceives that they have class size difficulties, she/he may discuss the matter with the superintendent and, ultimately the Board of Education, for additional hours to be added to their allocation.

Summary
The instructional size for kindergarten has been established as noted above. The instructional sizes at the remaining elementary levels, secondary instructional size staffing factors, and special education/ special programs staffing ratios remained the same as the 2019-2020 school year. The Options Program will maintain a class size range of 19-25 students.

Elementary and Secondary Class Size Averages by Grade Level or Department

Figures 2-1 through 2-3 provide a summary of the average class size by grade level or department for the elementary schools and secondary schools. The average number of students in each elementary grade level reflects enrollment as of October 1, 2020. The class size averages shown for the middle schools and the high school reflect actual enrollment by section provided by the District Media and Technology Services department on October 1, 2020.

Figure 2-1: 2020-2021 District Elementary Class Size Averages

ELEMENTARY	Total Students Scheduled	Total Sections	Average Class Size	Size Guideline Range
Kindergarten	**464**	**24**	**19.33**	**20-24**
Edina Virtual Academy	80	5	16.00	
Hybrid	384	19	20.21	
1st grade	**463**	**21**	**22.05**	**21-24**
Edina Virtual Academy	120	6	20.00	
Hybrid	343	15	22.87	
2nd grade	**418**	**20**	**20.90**	**21-25**
Edina Virtual Academy	84	5	16.80	
Hybrid	334	15	22.27	
3rd grade	**428**	**21**	**20.38**	**23-26**
Edina Virtual Academy	94	6	15.67	
Hybrid	334	15	22.27	
4th grade	**451**	**18**	**25.06**	**24-27**
Edina Virtual Academy	120	5	24.00	
Hybrid	331	13	25.46	
5th grade	**444**	**18**	**24.67**	**25-27**
Edina Virtual Academy	113	5	22.6	
Hybrid	331	13	25.46	
Total	**2668**	**122**	**21.02**	
Edina Virtual Academy	611	32	17.59	
Hybrid	2057	90	22.23	
CP	**261**	**12**	**21.75**	**28**
Edina Virtual Academy	30	2	15.00	
Hybrid	231	10	23.10	
Normandale	**651**	**27**	**24.11**	**27**
Edina Virtual Academy	123	6	20.50	
Hybrid	528	21	25.14	

At the elementary level, the average class size for Edina Virtual Academy sections is lower than for Hybrid sections.

Figure 2-2:   2020-2021 District Middle School Class Size Averages

Middle School	Scheduled	Sections	Class Size	Guideline Range
Art	1065	41	25.98	27.2
FACS	681	25	27.24	27.2
Health	297	12	24.75	27.2
English/Reading	2920	118	24.75	27.2
Mathematics	2044	94	21.74	27.2
Physical Educ.	1668	56	29.79	27.2
Science	1964	72	27.28	27.2
Social Studies	1942	72	26.97	27.2
STEM	1209	46	26.28	27.2
World Language	1814	71	25.55	27.2
Total	15604	607	25.71	
Music	1568	58	27.03	27.2

Middle schools are staffed lower (25.71) as compared to the overall allocation of 27.2 students per teacher.

Figure 2-3:   2020-2021 Edina High School Class Size Averages

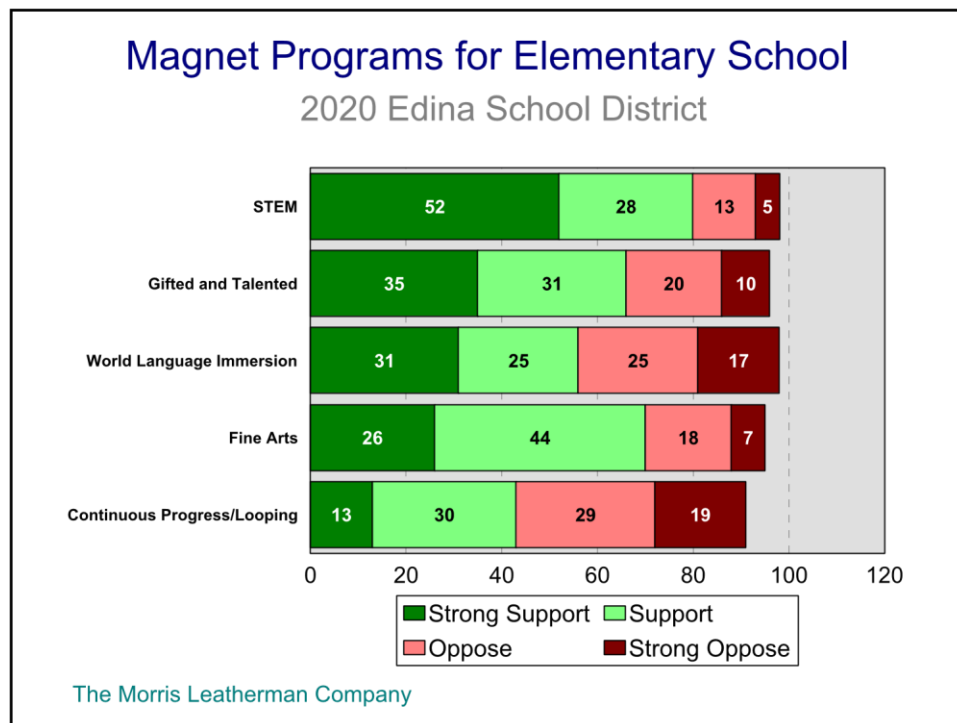| Edina High School	Total Scheduled	Total Sections	Average Class Size	Size Guideline Range
Art	334	15	22.27	30.9
Business Ed	308	11	28.00	30.9
FACS	223	9	24.78	30.9
Health	292	10	29.20	30.9
English/Reading	2535	87	29.14	30.9
Mathematics	2698	94	28.70	30.9
Physical Education	503	19	26.47	30.9
Science	2553	87	29.34	30.9
Social Studies	2916	98	29.76	30.9
STEM	165	6	27.50	30.9
World Language	1856	69	26.90	30.9
Totals	14383	505	28.48	30.9
**Music	1130	26	43.46	

The High School average class size is slightly lower (28.48) than what was allocated in staffing at 30.9 students per teacher.

Section III
Recommendations

Morris Leatherman Phone Survey Results Spring 2020

Question: The Edina Public Schools are exploring the possibility of creating a magnet elementary school. I am going to read you a list of potential magnet programs for an elementary school. For each of the following, tell me if you would strongly support it, somewhat support it, somewhat oppose it , or strongly oppose it. If you have no opinion, just say so....

- A Gifted and Talented School?
- A STEM -- Science, Technology, Engineering and Mathematics -- School?
- A continuous progress or looping school?
- Fine Arts school?
- World Language Immersion school?

Magnet Programs for Elementary School
2020 Edina School District

Program	Strong Support	Support	Oppose	Strong Oppose
STEM	52	28	13	5
Gifted and Talented	35	31	20	10
World Language Immersion	31	25	25	17
Fine Arts	26	44	18	7
Continuous Progress/Looping	13	30	29	19

The Morris Leatherman Company

Question: Which magnet program would you most support the District creating an elementary school for?
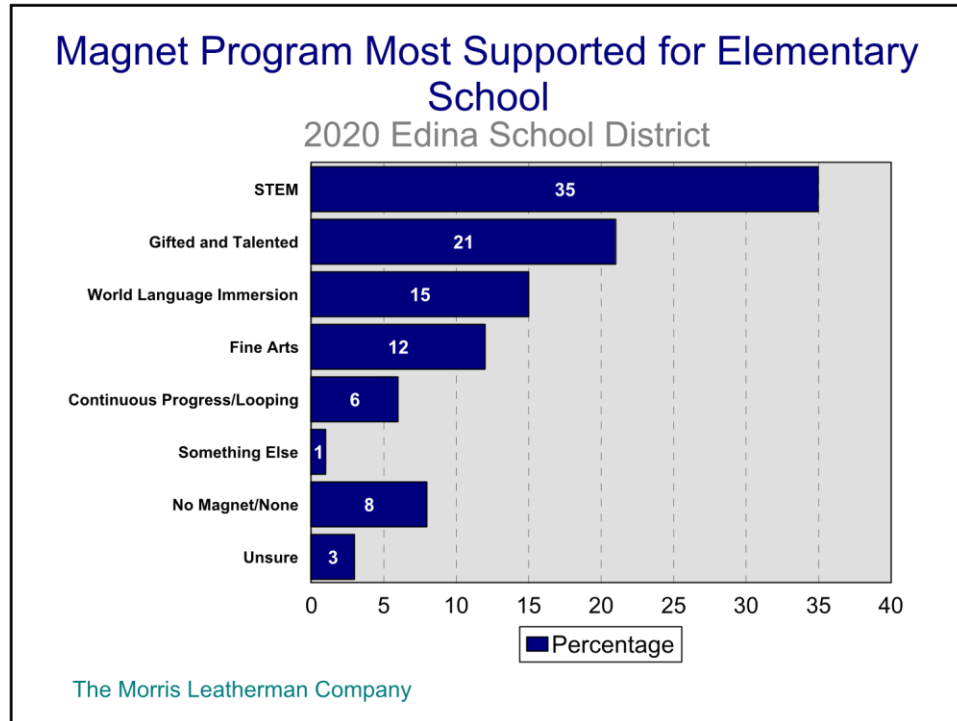
Enrollment Recommendations:
- Ensure allocated staffing and section/class size are consistent K-12 to maximize enrollment/staffing efficiency.
- Utilize last spring's Morris Leatherman Company survey to discuss curriculum programming options for the district in order to increase resident enrollment (market share), in particular at the elementary level.
- Collect exiting information continuously from departing families to understand what needs our district are not meeting.

Board Meeting Date: October 27, 2020 Work Session

TITLE: Science Curriculum Adoption Recommendation

TYPE: Discussion

PRESENTER(S): Jody De St. Hubert

BACKGROUND: This report includes information about the new Science standards the Minnesota Department of Education has passed into statute and the recommended adjustments for implementation that MDE has created. It also includes a summary of the Middle Level Science Design Team process, including the experience of piloting Science curriculum materials at the middle level and the decision making process that has led to the recommendation to adopt the Amplify Science curriculum for use in Edina in grades 6-8.

RECOMMENDATION: This report is for school board information and discussion.

PRIMARY ISSUE(S) TO CONSIDER: We are seeking board approval to adopt the Amplify Science Curriculum in grades 6 to 8.

ATTACHMENTS: *Please note that links open best using a Chrome browser.*

1. Report
2. Appendix items I
3. Appendix items II

Science Standards Information and Summary:

Resources:
MDE Science Page (https://education.mn.gov/MDE/dse/stds/sci/) (including timeline)

Information and Summary:

The Legislative requirements of the new Science standards include:
1. Standards that are general goals or summary descriptions of student learning.
2. K-8 Benchmarks specific to grade level.
3. Alignment with graduation requirements.
4. Career and college readiness goals.
5. The contributions of MN American Indians in connection to International Society for Technology in Education (ISTE).
6. A grounding in current research and national trends, including the Next Generation Science Standards (NGSS).

Currently 20 states have adopted the NGSS standards and 19 have adapted. Minnesota has adapted the NGSS standards in order to create MN Science Standards. Within the NGSS, there are three dimensions to learning science. The dimensions are combined to form each standard and the dimensions work together to help students build a cohesive understanding of science over time. The three dimensions are:

- cross cutting concepts (framework for scientific thinking across disciplines)
- science and engineering practices (standard behaviors that scientists and engineers use to explain the world or solve problems)
- disciplinary core ideas (fundamental scientific knowledge)

More information about these dimensions and NGSS can be found at
https://www.nextgenscience.org/
An important goal of three-dimensional science teaching is for students to engage in the process of solving a phenomena that provides pathways for students to engage in inquiry and problem solving.

The organization of the MN standards reflect the interconnectedness of science with an integration of the three dimensions. The standards are organized around the following 8 practices:
1. Asking questions and defining practices. (strong in past MN Science standards)
2. Developing and using models. (new approaches for MN)
3. Planning and carrying out investigations. (strong in past MN Science standards)
4. Analyzing and interpreting data. (strong in past MN Science standards)
5. Using mathematics and computational thinking. (new approaches for MN)
6. Developing explanations and designing solutions. (strong in past MN Science standards)
7. Engaging in argument from evidence. (in MN ELA standards)
8. Obtaining, evaluating, and communicating information. (in MN ELA standards)

Science Curriculum Review Process Update:

Since the 2018-2019 school year the Science Design team has been engaged in the Edina Curriculum Review Process in order to prepare for the changes in MN Science standards. Using a Guiding Change Document the teams determined the expected results that would be accomplished through the decision making curriculum review process.

During the 2019-2020 school year the team created Edina Science Guiding Principles in addition to a Science Materials Selection Rubric. The Middle Level Science Design Team used these documents as guides to move forward with curriculum evaluation. In addition they engaged in discussions with surrounding districts and curriculum review sources. The two curriculums they chose to pilot were STEMScopes and Amplify.

Middle Level Science Curriculum Pilot Information Gathering:

After the completion of each pilot period, pilot teachers engaged in conversations about their experiences. The information shared was captured in a table organized as pros and cons.

Internal Science Materials Discussion: STEMScopes

Pros	Cons
- There is a large bank of resources organized very well. - The resources are adaptable and flexible. - There are a lot of hands-on labs and experiences for students. - Pat (our sales rep) offered great customer support and help.	- The phenomena are not very engaging for students and in our opinion do not capture the true heart of a scientific phenomena. - Each of the lessons we interacted with or explored needed work and a decent amount of support. We felt that with a lot of time or energy, we would have the capacity to put together similar lessons/experiences for students. - The curriculum resources did not feel different enough than traditional science instruction. We felt a little bit like many of the labs and learning were labs that were classic science labs repackaged and reframed. As we learn about NGSS and the spirit of 3 dimensional learning, the lessons really should look and feel different. - Small example, but a detail worth noting as it was a symptom of a bigger concern, some of the suggested Enrichments/extensions did not seem to actually help students go deeper.

Internal Science Materials Discussion: Amplify

Pros	Cons
● Having a structure to build off of ● Online tools are helpful (very positive right now with online teaching) ● Storylines are overarching and complex. Lessons align with storyline ● Text allows us to teach reading strategies ● Text has many features (audio, note-taking) and using articles that are current as opposed to traditional texts ● The materials that we have been given is stuff that we can't create on our own (many teachers feel they can insert a lab using their own prior experience) ● The SIMS are incredible. ● The level of customer service is amazing. ● Slides for teachers to build off of is super helpful. ● Suggested labs/flextensions for each unit	● Not a lot of labs (act of science missing) ● Information dated from 6th grade launch unit (Mars rover) ● Equipment is not of high quality.

Internal Science Materials Selection Rubric: STEMScopes and Amplify

In completing the Science Materials Selection Rubric teachers objectively and individually reflected on the pilot experience with each curriculum. The average score in almost every category reflected Amplify as more closely aligned to the desired criteria. The total score for STEMScopes was 38 out of 56 and the total score for Amplify was 50/56.

Rate each criteria from 1 (= weak) to 4 (= strongest)				
Criteria (& Importance 1-3) 1 (=weak) & 3 (=strong)	STEM-Scopes Rating	STEMScopes Evidence	Amplify Rating	Amplify Evidence
Standards based (3) NGSS Aligned: ○ Storyline of phenomena that build upon each other. ○ Materials ask students to make connections with not only the practices but also the cross-cutting concepts and the core ideas. ○ Materials elicit direct, observable evidence of student progress in the three-dimensions, not just content knowledge. ○ Open-ended opportunities for students to discover rather than do Campbell soup science.	2.5	Storyline was not clearly present Labs and activities were similar to what we have done in the past Phenomena were not phenomenal	4	NGSS aligned New creation based on NGSS (not retrofitted) Compelling phenomena and storylines that drive each unit Clear use of cross-cutting concepts Clear use of practices of science Teacher support for implementing 3D standards

It looks different from what we have done for 15 years!			
MN Aligned (2) ● Includes the MN-specific benchmarks OR the content and structure to easily add those pieces.	3.5	Standards based Three dimensions were isolated and not connected	3	NGSS aligned, but not specifically MN-aligned. Will require adjustments to become fully aligned. Easy to identify areas of focus to become MN aligned.
Phenomena focused challenges/inquiries (3) ● Phenomena drives the learning ● Phenomena are connected to grade/grade-band core ideas ● Materials embed phenomena/problems across multiple lessons for students to build knowledge in the three dimensions ● Materials leverage students' prior knowledge/experiences related to the phenomena	2	Phenomena were not engaging, disjointed without a clear storyline, not compelling (ex. Ice melting, sugar falling)	4	Phenomena drive the learning. Phenomena are engaging, interesting, and compelling. Each activity drives the learner back to the anchor phenomenon for the unit. Ex: Engineering a solution for rescue workers when the power is out and they need energy for their batteries. 7th grade: Students learned about a person cured with a fecal transplant to convince a fictional senator to fund fecal transplant research.
Interdisciplinary (2) ● Overt, meaningful connections to ELA & Math standards.	3	Readings and resources that could be tied to ELA and math, but relied on the teacher to make the connections	4	Strong ELA connections Ex: Active reading with annotations, scientific writing Math connections are present as extended activities for each lesson
Teacher materials (3) ● Editable ● User-friendly for teachers who are not comfortable teaching science (K-5) ● Supports the use of student science notebooks (but not a workbook) ● Teacher overview of unit ○ List of equipment needs by unit/topic ○ Big picture view includes scientific background information and research (K-5) ○ General organized pacing guide/scope and sequence	3.5	Left things open to the teacher to decide what to use of the materials provided - would not lead to great alignment from this perspective Materials were easy to edit and use - though would prefer Google Docs to Google Slides which were favored by STEMScopes	4	Comprehensive teacher guide for full implementation (Ex. explanation of science pedagogy, specific questions to ask with teacher maneuvers based on student responses)

● Coherent/clear articulation of pacing/concepts ● Allows for vertical and horizontal alignment				

Differentiation/Personalization (2) (CONT. BELOW)
    Suggestions for extensions/enrichments, pursuing student-driven questions
    Simplified big ideas/essential questions for each unit
	3	Provided materials for teachers to draw from, but extensions and enrichments were not rigorous or deepen students understanding of concepts (ex. Make a poster, build a candle-holder)	3	Includes critical-juncture assessments where students take a mid-unit assessment, which will differentiate their experience based on student performance.
				
				Ability for students to pace faster.
				
				Includes flextensions, which are enrichments/extensions for students within the unit
				
				Many articles available for further learning.

Student materials (3 MS; 0 K-5) ● Ready to go handouts/materials for students	2.5	Provided easy to edit materials, but all materials needed to be adjusted for clarity and comprehension.	4	All materials provided in an easily-accessible online platform
Student thinking (3) ● CER embedded into the materials ● Has students acting as scientists, not just learning about science. Students have opportunities to collect and analyze data through experiments and simulations.	3	Lots of embedded CERs and language around scientific argumentation.	4	Strong use of scientific argumentation on formative and summative work within each unit.
Equipment/Materials (3) ● Non-consumables auxiliary resources provided with implementation ● Reasonable consumable materials (supplies, student notebooks, etc) cost that is budgeted for the entire length of the adoption (i.e. a budget that rolls over from year to year to purchase consumables for 10 years)	3	Materials were easily accessible and provided in kits Required many consumables Lots of hands-on experiments	3.5	All materials were provided within the kit provided for each unit. Each unit did not contain many hands-on experiments so few consumables were required.

Assessments (2 MS; 1 K-5) ● Ideally offers formative/summatives ● Assessment format mirrors the teaching	2.5	Included formative and summative assessments, but needed modifications for clarity and comprehension. Assessments were not well-rounded.	3	Assessment mirrors the progression of teaching. Many formatives embedded throughout with a critical juncture formative as an indicator of student progress. Also includes suggested instructional maneuvers based on student data. Some teachers reported summative assessments as lacking.
Assessment reporting (not rated) ● Assessments track achievement of individual benchmarks or standards ● Assessments can easily be integrated within Schoology/Seesaw ● Grade pass-back to Schoology and Infinite Campus	2.5	Assessments could be given in Schoology, but did not easily communicate with the gradebook in our limited experience.	2.5	Amplify can be embedded in Schoology Assessment questions are connected to standards but there is not currently an easy way to track achievement toward standards
Digital components (2) ● Access to online textbook/resources ● Simulations ● Video content	3	Digital resources were included, but reminded teachers of what they could find on their own without having publisher access.	4	Strong in all areas Video lessons - available in English and Spanish Fantastic simulations - much better than what is available online The Amplify library is robust and full of science-specific resources for students to access content. These resources are available in multiple languages.
MLs/SPED Considerations (not rated) ● Embed resources for students to build schema (MLs) ● Key vocabulary to pre-teach is highlighted, modifications strategies provided ● Text is provide at different reading levels ● Print materials available for students who need them	3	Provided leveled readings and translations.	4	Includes many tools and visuals to support exceptional learners. Scaffolding and next steps are listed in teacher overviews. Text is not provided at different levels, but can be translated, includes ability to have the text read to the student, key vocabulary is defined. Includes Spanish, and 11 other translations within the Amplify library (ex. Glossary and science articles).

				Unfortunately does not include Somali (yet).
Equity (3) ● Authentic representation of race and gender diversity ● CLRT teaching strategies embedded in instruction	1	No overt use of CLRT, but also did not have a chance to really delve into this aspect of STEMScopes	3	A variety of cultures and race are represented in the resources. CLRT strategies appear evident as they increase students iterating with the content, but it is not explicitly labeled as CLRT.
Total Points	**38/56**		**50/56**	

In addition to our internal review, the Middle Level Science Design Team explored outside input and external reviews.

External Science Materials Discussion: Amplify

The summary provided below is from five school districts and outlines their middle school experience with Amplify curriculum. The information shared was gathered in conversation with teachers and curriculum leaders in each district. The schools, their size, and their respective Niche ratings are:

School	Size	Niche Rating
Big Lake, MN	3,091	Above average
West Bend, WI	6,582	Above average
Madison Metropolitan, WI	27,000	Above average
Oshkosh, WI	9,876	Average
Waupun, WI	1,947	Average

The majority of the school districts are in Wisconsin. Wisconsin adopted the NGSS Science Standards in 2017 so the timeline for instructional shifts is different in our two states. Our closest neighbors in Minnesota such as Wayzata, Hopkins, and Minnetonka are still in the review and piloting process.

Summary from schools that are using Amplify:
1. Amplify provides a rigorous framework. Many teachers shared they have never seen students taking and writing science at such a high level.
2. The storyline and phenomena are engaging for students and it truly is NGSS aligned. Every lesson ties back to the phenomena and has felt authentic.

3. There is a lot of reading. Though, this isn't necessarily bad. The reading is strategically placed and given with different research based purposes, deepening student understanding.
4. Needs to be more hands on (some units in particular). However, the depth of science understanding students gain by taking part in the simulations would be nearly impossible in doing a traditional lab. Teachers who are experiencing this are able to add in their own hands on labs or use the flextensions.
5. Amplify has been very responsive to feedback. Many districts have shared feedback with Amplify and they have responded by fixing it.
6. Some districts reported that since adopting Amplify, they have never had such alignment across grades and schools. This has been a huge positive shift in their PLC collaboration.

Key Insights:
1. Coming up with the storylines and phenomena on our own would be extremely challenging on our own. Therefore, adopting a curriculum like Amplify would help shift teaching towards NGSS alignment much faster.
2. Adopting Amplify will ensure alignments across grades and district.
3. Perceived lack of hands on can be supplemented to round it out.
4. If we end up needing to have a virtual classroom next fall/year, using Amplify would be extremely helpful in continued learning and rigor for students.

External Science Materials Selection Rubric: Amplify and STEMScopes

EdReports show Amplify meeting expectations in all three gateway categories:

Alignment (to NGSS)	25 out of 26
Coherence & Scope	49 out of 56
Usability	46 out of 54

https://www.edreports.org/reports/overview/amplify-science-2018

EdReports show STEMScopes not meeting expectations. Due to the fact that it scored 4 out of 26 on alignment it did not receive a score for the additional gateways because it must first meet expectations for alignment.

https://www.edreports.org/reports/detail/ahJzfmVkcmVwb3J0cy0yMDY2MThyKQsSCVB1Ymxp
c2hlchhVDAsSBlNlcmllcxi7AQwLEgZSZXBvcnQYkQYM

6-8 Science Curriculum Adoption Recommendation: Amplify

General Overview:

We find ourselves in an unprecedented time. Schools are not what they were a few months ago. Science is a dynamic content area where standards and curriculum are simultaneously changing as we navigate new ways to interact with and engage students. In learning to do both at the same time, Amplify science has provided teachers with a solid outline of content as well as tools to engage students with vibrant text, hands on demonstrations, and a platform to record their observations, claims, and reasoning as they pursue new knowledge.

Amplify science provides well established storylines to guide student learning. The storylines start with a phenomenon to inspire curiosity in students. As per the Next Generation Science Standards, units are based on a 3-dimensional framework of science content, cross-cutting concepts and science practices. Amplify incorporates all three of these in each unit and cohesively builds on itself. Students regularly revisit the phenomenon while building their knowledge until students can produce their own Claim, Evidence, and Reasoning to explain the phenomenon.

Particular highlights of the program include captivating simulations for students to manipulate variables in a system that can't be recreated in a lab setting. Amplify also incorporates articles within each unit allowing for teachers to explicitly teach reading strategies while students learn about current scientific research. The articles are age-appropriate and accessible to students in multiple languages in addition to having the ability to be read-aloud for students who need these language accommodations.

Amplify science is primarily a digital based platform that allows it to be easily incorporated into many aspects of student learning. Teachers have benefited from a great support staff at Amplify science that is ready at a moments notice to answer specific questions teachers may have. Amplify science is compatible with Schoology which allows for streamlined integration into daily lessons. Teachers can easily post materials from Amplify science for students to access, while also having the additional bonus of having a program that can communicate directly with our gradebook huge time saving process.

For a short Amplify overview visit:

https://www.youtube.com/watch?v=7VM5H-MRauE&ab_channel=Amplify

For more specific information visit:

https://amplify.com/programs/amplify-science/

Talent Development Alignment:

Amplify Science fosters **critical and creative thinking for all learners** by having students make connections across concepts and make their own discoveries. In addition it is designed to give students an engaging, authentic experience that mirrors how scientists and engineers

actually work. Edina Middle School teachers, as well as teachers who have been using Amplify as their core curriculum in other districts note that the core concepts (phenomena) connected to simulations, the reading content, and the engagement of writing scientific arguments provides a rigorous well rounded experience that they have not been able to engage kids as deeply in until this point. The program also offers flexstensions in the form of videos, images, and additional digital simulations to deepen the understanding of science concepts and to **extend learning** for students who are interested and/or ready. Finally, Amplify can also be used in the compacted science courses to **accelerate learning**.

Next Steps:

In acknowledging the many positive data points that support the adoption of Amplify, there are additional steps to take to ensure an implementation that defines excellence. These steps include:

1. Continued Professional Development and support on implementation of the instructional shifts that Amplify and the new MN State Standards bring.
2. Targeted Professional Development on Amplify and the many components of the curriculum that will benefit all Edina students if understood and supported.
3. Creation of additional hands on lab experiences for students.
4. Ensure alignment of instruction and pathways at the elementary and high school level as they continue their review and implementation process.

We are currently positioned to move forward with each of these steps and our Edina Middle School Science teams are 100% ready to move forward with the Amplify adoption at this time. Amplify has proven to meet the standards, as well as the needs of our Edina learners.

6-8 Science Curriculum Implementation in Context of PreK-12 Science Review:

During the 2019-2020 school year the implementation of the compacted Science Pathway was first offered to our middle level students. It was determined that all middle level Science students would learn the same content and be assessed on the same standards, however, depending on the pathway learn at different rates. This implementation prompted the need for teachers to build Pathway 2 in a compacted method. Being a forward thinking team the Science team decided to build new courses to not only match Pathway 2 but also match new standards that would soon be adopted. This has created an immediate need for a curriculum resource to align with and deepen their beginning efforts.

The timeline presented for the Science Curriculum Review process in March 2020 was the following:

Elementary:
- K-5 Design Team is reviewing materials & field testing units this spring.
- Recommendation for materials purchase forthcoming in June.
- 2020-21: Elementary Implementation with "early adopters" only; District-wide training on pedagogical shift (Feb. 2021).
- 2021-22: Full K-5 implementation and ongoing PD.
  3rd graders will take the MCA-IV in 2024.

Middle School:

- 6-8 Design Team is reviewing materials & field testing units this spring.
- Recommendation for materials purchase forthcoming in June.
- 2020-21: Implementation in grades 6-8, including compacted science courses in grades 6 & 7.
- 2021-22: Implementation of grade 8 high school course (compacted science strand).

High School:

- 9-12 Design Team gathered stakeholder feedback on various course sequence models.
- 2020-21: Review materials for new course sequence, field test units, and make purchase recommendations by June.

Each timeline was created prior to COVID-19. The elementary team did not have the opportunity to decide on pilot materials or begin piloting, while the secondary teams have stayed close to their proposed timeline. The High School Science Design team will be meeting over the next month with Middle School 8th grade teachers in order to determine the 8th grade class offering for Pathway 2, as well as discuss the sequence of secondary course offerings. After gathering input and reviewing the process the Secondary team will determine an adjusted timeline for full implementation of standards. In addition the Elementary Science Design team will begin meeting to review the process and determine an adjusted timeline for implementation of standards as well.

Currently MDE has created [Science Standards Transition Timeline Alternatives](#) that will be taken into consideration to allow for more time for professional development, curriculum planning, staffing changes, and building collaboration. Even as adjustments are made, Edina will be prepared to implement the new MN State Science Standards as required in 2023-2024. With a solid foundation of understanding the organization of the MN standards centered around the previously listed 8 practices, each instructional level will incorporate alignment based on the skills and knowledge that students must obtain within the standards.

Appendix I
Amplify Adoption Preliminary Budget

Product	Price
Earth Science 6 year license	$58,996.00
Earth Science kits	$8,220.00
Life Science 6 year license	$61,060.00
Life Science kits	$7,610.00
Physical Science 6 year license	$55,126.00
Physical Science kits	$14,160

Professional Development	$.0

* Amplify is offering complimentary PD that is worth $3,200.

Shipping & Handling	$3,598.80
Total Cost	$208,770.80

*This budget is based on initial quotes and may need to be adjusted accordingly.

Appendix II
Science Curriculum Review Resources:

Edina Curriculum Review Process
Guiding Change Document
Edina Science Guiding Principles
Science Materials Selection Rubric

COVID-19 Testing Ad Hoc Committee

I, Erica Allenburg, as chair of the Edina Public Schools School District, have created an ad hoc committee to review the opportunities, practicality, challenges and feasibility of establishing a rapid COVID-19 testing infrastructure within the district.

Purpose: Knowing that rapid testing may inform one piece of a larger puzzle to determine the learning model during the COVID-19 pandemic, this temporary committee will meet to discuss the opportunities, practicality, challenges and feasibility associated with testing employees and students in the Edina Public Schools setting.

Scope: Complete a feasibility study, including financial cost, for rapid testing of students and employees for the COVID-19 virus in Edina Public Schools District. This scope includes an analysis but does not include decision making.

Key Dates: This committee is set to begin shortly after October 29th and have no more than three meetings before reporting its analysis back in report form to the Superintendent and then to the full school board no later than November 25th. If more time or meetings are needed, the co-chairs need to ask for more time before proceeding with any meetings.

Deliverables: A report containing the feasibility study containing tangible benefits and risks to the school district and needed resources to operate COVID testing.

- Review and analysis should include, but not be limited to: financial, legal (e.g. data privacy, liability, employee), equity, human resources limitations from both an administrative and management perspective, record-keeping, CDC and MDH guidelines and protocols, and Minnesota Department of Education protocols.

Members:

- Matthew Fox, Edina Public Schools, School Board Member (Co-Chair)
- Owen Michaelson, Edina Public Schools, School Board Member
- Julie Greene, Edina Public Schools, School Board Member
- Nicholas Kelley, PhD, Acting Public Health Administrator, City of Bloomington, MN, health liaison for Edina Public Schools (Co-Chair)
- Kelly Deweese, MPH, Public Health Specialist, Planner, City of Bloomington
- Nicole Tuescher, Director of Human Resources and Administrative Services (Co-Chair)
- Mary Heiman, Heath Services Coordinator
- Trevor Helmers, Rupp, Anderson, Squires & Waldspurger, P.A. Edina Public Schools Legal Counsel
- Sarah Prebil, Physician, Internal Medicine Abbott Northwestern, Community Member
- Al Tsai, Ph.D. Epidemiologist, Minnesota Department of Health, Community Member