

Brighton Area Schools
Board of Education
Regular Meeting
Monday, March 23, 2009
7 PM - BECC

A G E N D A

- I. Call to Order**
- II. Pledge of Allegiance**
- III. Roll Call**
- IV. Approval of Agenda**
- V. Recognition**
 - A. Michelle Madden**
 - B. Student Athletes, Winter Season**
 - C. Scranton Middle School "Morning Show" - Tom Nisbet**
- VI. Call to the Public**
 - A. Comment Card**

Time extended to provide individuals an opportunity to address the Board of Education. Time allotment is up to 30 minutes, individuals may speak for three minutes each. Individuals must identify themselves by name and address. The Board may hear issues, but is not required to answer questions or make statements and will refer most issues on to the Superintendent.
- VII. Old Business**
- VIII. Consent Agenda**
 - A. Bills of February 28-March 12, 2009**
 - B. Bills of March 19, 2009**
 - C. Minutes of March 9, 2009**
 - D. Minutes of March 12, 2009**
- IX. New Business**
 - A. Curriculum**
 - 1. K-5 Science Curriculum**
 - B. Finance**
 - 1. Director of Finance Position**
 - C. Human Resources**
 - D. Other**
 - 1. High School Research Team Report, Special Education**
 - 2. Resolution to Dissolve Renaissance Alternative School**
 - 3. Schools of Choice 2009/2010**
 - 4. Resolution, LESA Consortium for Copier Equipment**
 - 5. Acceptance of Donation**
- X. Communications and Reports**
 - A. From Superintendent**
 - B. From Board**
 - C. Announcements**

This is a meeting of the Board of Education in public for the purpose of conducting the School District's business and is not to be considered a public community meeting. There is time for public participation during the meeting as indicated in agenda item "Call to the Public."

Minutes

I. Call to Order

The meeting was called to order by President Anderson at 7:02 p.m.

II. Pledge of Allegiance

III. Roll Call

Members present: William Anderson, Joe Carney, Jay Krause, Cheryl Leach, Beth Minert, Joyce Powers and Greg Rassel.

Also present: Interim Superintendent Riutta, Assistant Superintendent Maria Bolen, Interim Assistant Superintendent Peggy Moyer, Executive Director of Curriculum Baiba Jensen, Attorney William McCrie, staff, press and visitors.

IV. Approval of Agenda

Moved by Leach, supported by Krause to approve the agenda as presented. Voice vote: 7 ayes. Motion carried.

V. Recognition

VI. Call to the Public

Noreen Owens, SOC parent from Hartland, addressed the Board concerning savings from closing Miller. She also asked that an outside committee be convened to conduct an analysis of the district and make recommendations concerning district efficiencies.

Bob Brown addressed the Board concerning school boundaries for attendance areas.

Nancy DeWolf addressed the Board concerning the recommendation to close Miller. She does not want to see a neighborhood elementary building closed.

Lisa Bozio addressed the Board concerning the closing of Miller, the replication of the Miller program at other buildings, schools of choice and that more families are being disrupted with the configuration of 5/6 and 7/8 buildings.

Courtney Bellanti addressed her concerns of the financial data presented for Miller and Lindbom. She also stated that an outside committee should study the schools and make recommendations to the Board.

Mrs. Alraid addressed the Board concerning closing of Miller and replicating the program at all the elementary schools.

Mrs. Cardoni addressed the Board concerning there needs to be more of an effort to communicate with parents.

Keith Williams, Hornung parents, addressed the inconsistency with staff wage increases and the district's deficit. He also stated that the 5/6 and 7/8 configurations causes disruption to many families. There is more of a financial savings if Lindbom is closed rather than Miller.

Steve Siddal addressed the Board questioned the data used in the Elementary Research Team's recommendation to closed a building.

Jodi Cook addressed the Board with her concerns related to the closing of a building.

Kelly Lovelady addressed the Board concerning closing a building.

Kelly Moustakeas addressed the Board with her issues such as transportation, extended day program, science center, VMI program, and moving costs that need to be resolved regarding the closing of Miller.

Jack Money asked that a building not be closed and that community members work with the district in addressing the deficit.

Jason Stanza addressed the Board concerning the closing of any building.

Mary Beth Wenzel stated that the Research Team had to consider academic and financial items before recommending that a building be closed. She further stated that academics had to come first.

Kelly Moustakeas asked the Trustees not to rush their decision in considering the Research Team's recommendation.

John Conely addressed the Board concerning the operational revenues and expenditures. He suggested that the budget be in order before the closing of a school.

Scott Turner indicated that he would close Lindbom and redistrict to keep the kindergarten program at Miller.

Gaylyn Ray Brown suggested the sooner a school district addresses early childhood problems and institutes interventions, special education costs can be reduced.

Sanford Ross suggested that closing Lindbom would increase class sizes throughout the district. Miller teachers will be relocated throughout the district's elementary buildings and still be teaching kindergarten.

Barry Goode, President of BEA and a member of the Leadership Team, stated it was his opinion that Leadership Team would have a say in reviewing the recommendation to close a building. He further suggested that the district's deficit is not due to employee wages, health care but rather due to inadequate funding levels from the state. In addition, he stated that cost savings haven't been proven and staffing efficiencies haven't occurred for years. It was his opinion that the sister school concept should be in place for the 2010 school year.

John Conely addressed the Board regarding Barry Goode's statements.

Steve Popa asked the Board to make the best decision possible and take sufficient time to make the decision.

VII. Old Business

VIII. Consent Agenda

A. Bills of February 13-27, 2009

Moved by Powers, supported by Rassel to approve the bills as presented. Voice vote: 7 ayes. Motion carried.

B. Minutes of February 23, 2009

Moved by Rassel, supported by Carney to approve the minutes as presented. Voice vote: 7 ayes. Motion carried.

IX. New Business

A. Other

1. 5/6 and 7/8 Reconfiguration Report and Recommendation

The Board received an update on the 5/6 and 7/8 reconfiguration recommendation. Mr. Brenner reviewed academic teams, encore classes, building logistics, lunch periods, staffing levels (55.83 currently and reduced to 51 FTE for 2009/10 school year.), student enrollment projections, and fine arts.

Mrs. Minert asked about moving costs and outside equipment for fifth grade students. It was reported that the Sinking Fund is \$3.3 million.

Mrs. Powers is concerned at less art and physical education at this level but would support the reconfiguration.

Mr. Vecchioni reviewed the 7/8 configuration and stated that the current staffing level is 47.64 and the 2009/10 year would increase staffing by .5 FTE which would give the 7/8 building 2 counselors, 1 media and 1 tech support position. The staffing ration for all core content classes would be 30:1 ratio. He also discussed the mock scheduling process, common core electives, transportation savings, special education costs and projected student enrollments.

Moved by Rassel, supported by Krause to adopt the 5/6 and 7/8 building reconfiguration recommendations as presented. Voice vote: 7 ayes. Motion carried.

2. Elementary Research Team Recommendation

Mrs. Riutta addressed the Board concerning the Elementary Research Team's recommendation, the purpose of the Research Teams, and the budget deficit.

Mrs. Minert shared her concerns about the recommendation to close Miller.

Moved by Rassel, supported by Carney to adopt the K-4 building configuration and close the Miller Early Childhood Center. Roll call vote: 6 ayes, 1 nay-Minert. Motion carried.

Meeting recessed at 9:30 p.m.
Meeting reconvened at 9:45 p.m.

3. Resolution, LESA Consortium Agreement for Copier Equipment

Mr. Liu presented the LESA Consortium Agreement for copier equipment. The consortium provides the mechanism to obtain machines and contract services at more favorable rates. The agreement will be placed on the March 23, 2009 agenda for Board consideration.

B. Finance

1. Financial Statements, February 2009 - All Funds

Assistant Superintendent Maria Bolen presented a draft of the financial statements so that the Board will have "real time" monthly budget information on each fund.

2. Cash Flow Borrowing

Mrs. Bolen reported that there were no purchasers of the district's \$9.2 million borrowing note. The district requested advances on its state aid payments for March and April to address cash flow needs. The plan to participate in the Michigan Municipal Bond Authority's next borrowing opportunity occurs in early April. The resolution to participate in the MMBA was presented for Board consideration.

Moved by Rassel, supported by Leach to adopt the Resolution as presented. Voice vote: 7 ayes. Motion carried.

3. Deficit Reduction Plan

The first draft of the Deficit Reduction Plan was presented for review and discussion. There is a \$323,000 savings for the 2008/09 year. The district will continue to explore the sister school concept and other avenues to reduce the deficit.

Moved by Rassel, supported by Carney to adopt the conceptual Deficit Reduction Plan as presented. Voice vote: 7 ayes. Motion carried.

C. Curriculum

1. Resolution, LATEC

The LATEC Resolution expires June 30, 2010 but the agreement requires that a successor agreement be in place by February 28, 2009. The agreement has been presented to the county superintendents for review and has been submitted to legal counsel for review.

Moved by Krause, supported by Rassel to adopt the LATEC Resolution which extends the time line for negotiating a successor agreement from February 28, 2009 to April 30, 2009. Voice vote: 7 ayes. Motion carried.

D. Human Resources

1. Leave Request - Moved by Leach, supported by Minert to approve the general leave of absence received from Jennifer Ziewacz for the 2009/10 school year. Voice vote: 7 ayes. Motion carried.

2. Resignation - Moved by Powers, supported by Krause to accept the resignation Erin Mastroianni effective June 30, 2009 with appreciation for her service to Brighton Area Schools. Voice vote: 7 ayes. Motion carried.

3. Resignations for Retirement Purposes - Moved by Powers, supported by Rassel to accept the retirement resignations of Norm Lampi, Kathy Brownlee and Mary Ann Herek with regret and appreciation of their service to the Brighton Area Schools. Voice vote: 7 ayes. Motion carried.

X. Communications and Reports

A. From Superintendent

1. Mrs. Riutta reminded the Board of the March 25, 2009 Livingston County School Board Association Dinner meeting.
2. Moved by Rassel, supported by Krause to reschedule the regular April 14, 2009 Board meeting to April 16, 2009 at 7 p.m. in the Board Room at BECC, 125 S. Church Street. Voice vote: 7 ayes. Motion carried.

3. The Board will conduct a work session on March 12, 2009 for the purpose of meeting with Mike Wilmot, Michigan Leadership Institute, regarding the Superintendent Search process.

B. From Board

1. Joe Carney, Jay Krause and Beth Minert will be in Lansing for the Legislative Breakfast.
2. The Finance and Human Resource Committees' minutes were enclosed in the Board packet.

C. Announcements

Meeting adjourned at 10:17 p.m.

Date Approved:

Approved by:

William R. Anderson, President

Elizabeth Minert, Secretary

(Sheri Lohmiller, Recorder)

Brighton Area Schools
Board of Education
Special Meeting
Thursday, March 12, 2009
7 PM - BECC

Minutes

I. Call to Order

The meeting was called to order by President Anderson at 7:05 p.m. Members present: William Anderson, Joe Carney, Jay Krause, Cheryl Leach, Beth Minert, Joyce Powers and Greg Rassel. Also present: Interim Superintendent Riutta, staff, press and visitors.

II. Pledge of Allegiance

III. Call to the Public

No comments.

IV. Work Session, Superintendent Search

Mike Wilmot, Michigan Leadership Institute, reviewed the proposed search time line with the Board.

The first step in the process is to identify the stakeholders and hold open forums to solicit points of pride for the district to use in the search process and further, to provide the opportunity for public input on the qualities the community would like to see used in developing the superintendent search profile. Forums will be scheduled with the stakeholders on March 23, 2009 beginning at 8:00 am. Mr. Wilmot will compile the information gathered at the forums and present the information to the board.

Mr. Wilmot reviewed the search process including advertising the position, acceptance of applications, review of the applications, development of interview questions, interview schedules, site visits and final selection.

The Board discussed the time line and the search process.

Moved by Leach, supported by Carney to adjourn.

Meeting adjourned at 8:10 p.m.

Date Approved:

Approved by:

William R. Anderson, President

Elizabeth Minert, Secretary

(Sheri Lohmiller, Recorder)

V.



TO: Trustees, Board of Education
FROM: Bonnie P. Riutta, Interim Superintendent of Schools
RE: Recognition
DATE: March 18, 2009

Shining Stars

Michelle Madden

Michelle a teacher at Scranton Middle School and Girls Assistant Softball Coach, was elected by the Michigan Softball Coaches Association in February as Assistant Coach of the year. She is a Brighton Alum and has spent the last twenty years as Assistant Coach with Coach Pam Lee Campbell.

Winter Student Athletes

James Koss-Senior, 3rd Place in State Competition, Boy's Bowling

Girl's Ski Team Qualified for States and Placed 9th

Carrie Fisher
Chrissy Fisher
Louise Gentner
Stephanie Haselhuhn
Sophia Shinsky
Margaret Smith
Ashton Street

Cameron McCrie-Senior, State Qualifier Boy's Ski

Girl's Gymnastics Qualified for States and Finished 12th

Alexandra Geddis-McCrie - Freshman
Kendra Hardy - Freshman
Marina Moretti - Sophomore
Meredith Robinson - Freshman
Emily Rose - Freshman
April Szuma - Junior
Tiffeny Wysocki - Senior

Boy's Swimming, Qualified for States

Ryan Buck - Senior
John Childers - Senior
Andrew Graetzel - Senior
Michael Griffith - Junior
Matt Lloyd - Sophomore
Jacob Lunau - Junior
Jared Price - Junior

Boy's Wrestling, Qualified for States

Travis Hernandez - Senior
Kenneth Richmond - Junior, 8th in state
Grant Pizzo - Senior, 2nd in state

Scranton Middle School's "Morning Show"

Tom Nesbitt has started a Scranton Middle School "Morning Show". He will be present to share this unique program that features our students and their communication skills.

VIII.A.B.C.D.



TO: Trustees, Board of Education
FROM: Bonnie P. Riutta, Interim Superintendent of Schools
RE: Consent Agenda
DATE: March 18, 2009

The bills of February 28-March 12 and March 19, 2009 and the minutes of March 9 and 12, 2009 are presented for your consideration under the Consent Agenda.

The bills of March 19 will be sent via email after the 3:00 pm check run due the number of days before the next scheduled meeting which will be April 16.

Motion

Moved by:
Supported by:

To approve the consent agenda as presented.

Voice vote:
____ Ayes
____ Nays

Check Register

Feb 28 through Mar 12, 2009

BRIGHTON AREA SCHOOLS
ACCTS PAYABLE CHECK REGISTER FOR
02/28/09 THROUGH 03/12/09

CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202491	MISC EXP	2	120.00	2-1-293-5992-000-200-0000	SUP STATE MEET EXP	TIM MCINNIS
202492	MISC EXP	2	250.00			BRIGHTON ATHLETICS
ACCT TOTAL			370.00			
202489	TOBO EDUCATIONAL	1	7500.00	1-1-232-3150-000-000-0000	SUPR OFC- PROF SVC	SUPT INTERIM/FEB
ACCT TOTAL			7500.00			
202483	CITY OF BRIGHTON	1	89.24	1-1-261-3830-000-000-0000	WATER & SEWAGE	HS CONCESSION STAND
202483	CITY OF BRIGHTON	1	401.30			1010 STATE ST/LIND
202483	CITY OF BRIGHTON	1	2234.22			620 S 7TH ST/HS/FEB
202483	CITY OF BRIGHTON	1	552.87			125 S CHURCH/BEOC
202483	CITY OF BRIGHTON	1	403.41			125 S CHURCH/SLOAN
202483	CITY OF BRIGHTON	1	1224.88			850 SPENCER RD/MILLR
ACCT TOTAL			4905.92			
202483	CITY OF BRIGHTON	1	248.94-	1-1-261-3831-000-000-0000	BUS UTILITIES	5899 BORDERLINE DR
ACCT TOTAL			248.94-			
202484	DTE ENERGY	1	102.34	1-1-261-5520-000-000-0000	ELECTRICITY	7878 BRIGHTON RD
ACCT TOTAL			102.34			
202486	KIMBALL MIDWEST	106641	53.43	1-1-271-5730-000-000-0000	BUS REPR PARTS	BUS REPR PARTS
202486	KIMBALL MIDWEST	106641	46.80			BUS REPR PARTS
202486	KIMBALL MIDWEST	106641	7.17-			LESS DISC
202486	KIMBALL MIDWEST	106641	212.61			BUS REPR PARTS
202486	KIMBALL MIDWEST	106641	7.69-			LESS DISC
ACCT TOTAL			297.98			
202490	U S POSTMASTER	1	3000.00	1-2-192-1000-000-000-0000	PREPAID - POSTAGE	BULK MAIL DEP 3/09
ACCT TOTAL			3000.00			
202488	MONROE FINANCIAL	1	205.00	1-2-451-0500-000-000-0000	GARNISHMENT	GARNISHMENT 03/13
202481	A.F.S. ASSIGNEE OF	1	85.37			GARNISHMENT 03/13
202482	KRISPEN S CARROLL	1	439.48			CHAPTER 13 W/H 03/13
ACCT TOTAL			729.85			
202487	LIVINGSTON CTY UNITED	1	954.08	1-2-451-0850-000-000-0000	UNITED WAY	FEB UNITED WAY
ACCT TOTAL			954.08			
202485	PENNY DRAPER	2	300.00	2-1-331-7912-000-000-0000	FUNDRAISER EXP PAC	BCPA MUSICJUDGE 3/15
ACCT TOTAL			300.00			
GRAND TOTALS			17911.23			

Check Register

Mar 13 through Mar 19, 2009

BRIGHTON AREA SCHOOLS
ACCTS PAYABLE CHECK REGISTER FOR
03/13/09 THROUGH 03/19/09

CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202536	MIDWEST ILLUMINATION	M96144	5976.00	4-1-456-6220-000-006-0000	ENRGY PROJ-CONSTR	LIGHTING RETROFIT#18
202536	MIDWEST ILLUMINATION	M96144	119.52-			LESS DISC
ACCT TOTAL			5856.48			
202563	FOOD SERV STDNT REF	2	15.00	2-0-161-0000-000-000-0000	FOOD SALES-PUPILS	CATHERINE GECOSKY
ACCT TOTAL			15.00			
202538	NEXTEL COMMUNICATIONS	2	19.08	2-1-297-3410-000-000-0000	TELEPHONE EXP FS	FS/BROWDER CELL 2/10
ACCT TOTAL			19.08			
202518	GCS SERVICE INC	2	822.58	2-1-297-4120-000-000-0000	REP/MAINT EQUIP FS	FS EQ REPR/OVEN/HS
202518	GCS SERVICE INC	2	234.62			FS EQ REPR/WARMER/HS
202515	DELWOOD SUPPLY	2	176.00			FS EQ REPR/HOSES
ACCT TOTAL			1233.20			
202516	FONTANA BROTHERS INC	2	111.40	2-1-297-5610-000-000-0000	FOOD	FOOD
202553	VAN EERDEN FOODSERVICE	2	2366.20			FOOD
202553	VAN EERDEN FOODSERVICE	2	912.70			FOOD
202553	VAN EERDEN FOODSERVICE	2	3180.89			FOOD
202553	VAN EERDEN FOODSERVICE	2	7.48-			FOOD
202553	VAN EERDEN FOODSERVICE	2	3110.21			FOOD
202553	VAN EERDEN FOODSERVICE	2	11.86-			FOOD
202510	COCA-COLA BTLG CO OF	2	2310.65			FOOD
202553	VAN EERDEN FOODSERVICE	2	1292.02			FOOD
202553	VAN EERDEN FOODSERVICE	2	6281.95			FOOD
202553	VAN EERDEN FOODSERVICE	2	3707.13			FOOD
202553	VAN EERDEN FOODSERVICE	2	1136.01			FOOD
202553	VAN EERDEN FOODSERVICE	2	416.76			FOOD
202553	VAN EERDEN FOODSERVICE	2	5060.40			FOOD
202553	VAN EERDEN FOODSERVICE	2	140.40			FOOD
202553	VAN EERDEN FOODSERVICE	2	953.18			FOOD
202553	VAN EERDEN FOODSERVICE	2	1073.37			FOOD
202553	VAN EERDEN FOODSERVICE	2	1379.03			FOOD
202510	COCA-COLA BTLG CO OF	2	522.80			FOOD
202524	HUNGRY HOWIE'S PIZZA	2	297.00			FOOD
202524	HUNGRY HOWIE'S PIZZA	2	297.00			FOOD
202522	HAV-A-BAR INC	2	130.88			FOOD
202522	HAV-A-BAR INC	2	112.92			FOOD
202522	HAV-A-BAR INC	2	208.88			FOOD
202522	HAV-A-BAR INC	2	61.56			FOOD
202522	HAV-A-BAR INC	2	198.16			FOOD
202522	HAV-A-BAR INC	2	69.88			FOOD
202522	HAV-A-BAR INC	2	78.96			FOOD
202522	HAV-A-BAR INC	2	119.76			FOOD
202522	HAV-A-BAR INC	2	239.08			FOOD
202522	HAV-A-BAR INC	2	200.48			FOOD
202504	BIG APPLE BAGELS	2	783.84			FOOD

BRIGHTON AREA SCHOOLS
ACCTS PAYABLE CHECK REGISTER FOR
03/13/09 THROUGH 03/19/09

CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
						03/19/09
202524	HUNGRY HOWIE'S PIZZA	2	286.00	2-1-297-5610-000-000-0000	FOOD	FOOD
202504	BIG APPLE BAGELS	2	325.68		FOOD	FOOD
202497	AUNT MILLIE'S BAKERIES	2	1504.65		FOOD-3ACCTS-2/28	
ACCT TOTAL			38850.49			
202544	SMITH DAIRY PRODUCTS	2	2476.46	2-1-297-5611-000-000-0000	MILK	MILK 2/7
202544	SMITH DAIRY PRODUCTS	2	2335.62			MILK 2/14
202544	SMITH DAIRY PRODUCTS	2	1545.43			MILK 2/21
202544	SMITH DAIRY PRODUCTS	2	2555.21			MILK 2/28
ACCT TOTAL			8912.72			
202553	VAN EERDEN FOODSERVICE	2	41.93	2-1-297-5640-000-000-0000	DISPOSABLES FS	DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	98.04			DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	186.84			DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	41.93			DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	257.05			DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	54.03			DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	108.06			DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	41.93			DISPOSABLES FS
202553	VAN EERDEN FOODSERVICE	2	699.29			DISPOSABLES FS
202509	CLARK PRODUCTS INC	2	1191.14			DISPOSABLES FS
202509	CLARK PRODUCTS INC	2	2720.24			DISPOSABLES FS
ACCT TOTAL						
202553	VAN EERDEN FOODSERVICE	2	22.07	2-1-297-5993-000-000-0000	SUPP SANITATION FS	SUPP SANITATION FS
202553	VAN EERDEN FOODSERVICE	2	44.14			SUPP SANITATION FS
202553	VAN EERDEN FOODSERVICE	2	22.07			SUPP SANITATION FS
ACCT TOTAL			88.28			
202503	BANK OF NEW YORK MELLO	3	112.50	3-1-511-7410-000-005-0000	DUES AND FEES	05 AGENT FEE-5/24/09
ACCT TOTAL			112.50			
202564	MISC EXP	2	125.00	2-1-293-5992-000-200-0000	SUP STATE MEET EXP	BRIGHTON ATHLETICS
ACCT TOTAL			125.00			
202521	HARTLAND CONSOLIDATED	1	89.30	1-1-113-5110-031-026-0000	HS ENGLISH TCH SUP	HS 1/28 SUB-MERRILL
ACCT TOTAL			89.30			
202543	SAFETY-KLEEN CORP	1	181.50	1-1-127-4120-031-550-0000	MAINT AUTO SHOP	HS AUTO SHOP 2/13
ACCT TOTAL			181.50			
202532	LIVINGSTON ESSENTIAL	1	390.00	1-1-127-5110-031-521-0000	SUPPLIES CHILD CARE	CHILD CARE/TOKENS
ACCT TOTAL			390.00			

BRIGHTON AREA SCHOOLS
ACCTS PAYABLE CHECK REGISTER FOR
03/13/09 THROUGH 03/19/09

03/19/09

CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202501	AUTO VALUE BRIGHTON	107701	251.28	1-1-127-5110-031-550-0000	SUPPLIES AUTO SHOP	SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	57.74			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	10.82			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	7.40			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	16.90			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	89.95			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	89.95			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	18.46			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	51.16			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	22.47			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	42.19			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	29.94			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	40.99			SUPPLIES AUTO SHOP
202501	AUTO VALUE BRIGHTON	107701	549.35			SUPPLIES AUTO SHOP
ACCT TOTAL						
202521	HARTLAND CONSOLIDATED	1	8400.00	1-1-127-8210-031-000-0000	TUITION/VCC PROGRAMS	SHARED TUITION 08-09
202523	HOWELL PUBLIC SCHOOLS	1	9000.00			SHARED TUITION 08-09
ACCT TOTAL			17400.00			
202528	KATHLEEN KRYZA'S	1	1728.00	1-1-221-3120-000-802-0000	C/S SPEAKER IDEIA	LESA 9/18-3/24 PMT#2
ACCT TOTAL			1728.00			
202523	HOWELL PUBLIC SCHOOLS	1	758.54	1-1-221-5110-000-802-0000	SUPPL & MAT'L	IDEIA IDEA 9/15-4/17 FOOD
ACCT TOTAL			758.54			
202539	OFFICE EXPRESS INC	1	31.15	1-1-226-5910-000-000-0000	SUPT INST-OFC SUP	SUPT INST-OFC SUP
ACCT TOTAL			31.15			
202539	OFFICE EXPRESS INC	1	31.15	1-1-232-5910-000-000-0000	SUPR OFC-OFC SUPP	SUPR OFC-OFC SUPP
ACCT TOTAL			31.15			
202538	NEXTEL COMMUNICATIONS	1	19.08	1-1-241-4120-021-000-0000	SCRANT EQ R/M PRIN	SCR/NISBET CELL 2/10
ACCT TOTAL			19.08			
202534	MICHIGAN PUBLIC SCHOOL	1	.40	1-1-252-2820-000-000-0000	BSO - RETIRE	FEB RETIRE ROUNDING
ACCT TOTAL			.40			
202549	UMBAUGH	1	500.00	1-1-252-3190-000-000-0000	BSO-OTH PROF SVC	CONTINUINGDISCLOSURE
202527	INFINISOURCE INC	1	3045.00			COBRA CONTR-3/14/10
202527	INFINISOURCE INC	1	225.00			COBRACOLLECTION-3/14
ACCT TOTAL			3770.00			

BRIGHTON AREA SCHOOLS
ACCTS PAYABLE CHECK REGISTER FOR
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CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202539	OFFICE EXPRESS INC	1	18.49	1-1-252-5910-000-000-0000	BSO - SUPPLIES	BSO - SUPPLIES
ACCT TOTAL			18.49			
202538	NEXTEL COMMUNICATIONS	1	3047.05	1-1-261-3410-000-000-0000	TELEPHONE	PHONES-2/10 INV
202495	AT&T	1	2224.45			BRIGHTON SCHOOLS 3/7
202506	BROADWING COMM., LLC	1	1824.59			PHONE SERV/FEB
202506	BROADWING COMM., LLC	1	1834.25			PHONE SERV/MAR
202495	AT&T	1	25.87			BOILER ALARM 3/7
ACCT TOTAL			8956.21			
202495	AT&T	1	1195.00	1-1-261-3410-000-000-1000	TELEPHONE-TECHNOLOGY	WCRESA/MAR
202538	NEXTEL COMMUNICATIONS	1	116.48			TECH/6 PHONES-2/10
202495	AT&T	1	224.00			T1 LINE/MAR
ACCT TOTAL			1535.48			
202529	KROGER CO	1	3131.29	1-1-261-4124-000-000-0000	CONTR SERV GRNDS	BUS GARAGE DR MNT/08
ACCT TOTAL			3131.29			
202554	VEOLIA ES SOLID WASTE	108331	3979.01	1-1-261-4125-000-000-0000	CONT SRV CUSTODIAL	RUBBISH&RECYCLE/MAR
ACCT TOTAL			3979.01			
202538	NEXTEL COMMUNICATIONS	1	251.89	1-1-261-4127-000-000-0000	TELEPHONE REP/MAINT	EQUIP CHRGS 2/10
ACCT TOTAL			251.89			
202535	MI SCHOOLS ENERGY COOP	1	82870.06	1-1-261-5510-000-000-0000	HEATING FUEL	FEB NATURAL GAS
ACCT TOTAL			82870.06			
202535	MI SCHOOLS ENERGY COOP	1	64712.97	1-1-261-5520-000-000-0000	ELECTRICITY	ELECT/11 METERS/JAN
202513	DTE ENERGY	1	242.00			STREET LIGHTING/FEB
ACCT TOTAL			64954.97			
202539	OFFICE EXPRESS INC	108171	67.68	1-1-261-5910-000-000-0000	MAINT OFF SUP	MAINT OFF SUP
202539	OFFICE EXPRESS INC	108171	54.33			MAINT OFF SUP
ACCT TOTAL			122.01			
202496	ARAMARK UNIFORM	112031	182.76	1-1-261-5992-000-000-0000	MAINT SUP	MAINT&GRNDS/UNIFORMS
202501	AUTO VALUE BRIGHTON	107751	68.37			MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	354.94			MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	17.19			MAINT SUP
202496	ARAMARK UNIFORM	112031	1401.88			MAINT&GRNDS/UNIFORMS
202525	IDN-HARDWARE SALES INC	108061	297.22			MAINT SUP
202525	IDN-HARDWARE SALES INC	108061	414.01			MAINT SUP

BRIGHTON AREA SCHOOLS
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CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202525	IDN-HARDWARE SALES INC	108061	297.20	1-1-261-5992-000-000-0000	MAINT SUP	MAINT SUP
202525	IDN-HARDWARE SALES INC	108061	32.28		MAINT SUP	MAINT SUP
202525	IDN-HARDWARE SALES INC	110901	302.37		MAINT SUP	MAINT SUP
202525	IDN-HARDWARE SALES INC	110901	750.75		MAINT SUP	MAINT SUP
202511	COMPLETE BATTERY SOURC	107901	13.20		MAINT SUP	MAINT SUP
202511	COMPLETE BATTERY SOURC	107901	34.57		MAINT SUP	MAINT SUP
202511	COMPLETE BATTERY SOURC	107901	33.82		MAINT SUP	MAINT SUP
202511	COMPLETE BATTERY SOURC	107901	19.08		MAINT SUP	MAINT SUP
202511	COMPLETE BATTERY SOURC	107901	68.77		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	8.97		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	48.99		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	36.28		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	25.69		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	48.74		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	4.88		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	52.82		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	22.17		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	47.91		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	95.82		MAINT SUP	MAINT SUP
202501	AUTO VALUE BRIGHTON	107751	15.79		MAINT SUP	MAINT SUP
ACCT TOTAL			4696.47			
202515	DELMWOOD SUPPLY	113341	1130.73	1-1-261-5996-000-000-0000	HVAC SUP	HVAC SUP/HAWK
ACCT TOTAL			1130.73			
202505	BRIGHTON FORD-MERCURY	1	25.00	1-1-271-4130-000-000-0000	BUS REPAIR	BUS/GLASS REPR
202507	CAPITAL CITY INTERNATL	1	413.16			BUS TOW/#35/FEB
202505	BRIGHTON FORD-MERCURY	1	227.00			BUS/GLASS REPR
202505	BRIGHTON FORD-MERCURY	1	45.00			BUS/GLASS REPR
ACCT TOTAL			710.16			
202540	OVERHEAD DOOR CO	1	134.00	1-1-271-4190-000-000-0000	GARAGE REPAIR	REPR BUS WASH/MAR
ACCT TOTAL			134.00			
202512	CONTINENTAL LINEN	106571	35.00	1-1-271-4910-000-000-0000	GARAGE RENTALS	UNIFORM RENTAL 2/11
202512	CONTINENTAL LINEN	106571	35.00			UNIFORM RENTAL 3/4
202512	CONTINENTAL LINEN	106571	35.00			UNIFORM RENTAL 2/18
ACCT TOTAL			140.00			UNIFORM RENTAL 2/25
202546	STATE ELECTRONICS CO	106751	70.00	1-1-271-4911-000-000-0000	TRANS CONTR SERV	BUS RADIO/BATTERY
202546	STATE ELECTRONICS CO	106751	569.00			BUS RADIO
202546	STATE ELECTRONICS CO	106751	65.00			BUS RADIO REPR
ACCT TOTAL			704.00			

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CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202533	LUBRICOTE CORP	1	78.00	1-1-271-5710-000-000-0000	BUS/GAS-OIL-GREASE	BUS/GREASE
ACCT TOTAL			78.00			
202511	COMPLETE BATTERY SOURC	106731	300.00	1-1-271-5720-000-000-0000	TIRES/TUBES/BATTERIE	TRANSP/BATTERIES
202502	BACHMAN TRUCK TIRE	106711	180.00			BUS TIRES
202517	GCR TIRE CENTERS	106721	1482.00			BUS TIRES
ACCT TOTAL			1962.00			
202520	HANS AUTO ELECTRIC INC	106631	302.72	1-1-271-5730-000-000-0000	BUS REPR PARTS	BUS REPR PARTS
202530	LAWSON PRODUCTS INC	106651	183.02			BUS REPR PARTS
202520	HANS AUTO ELECTRIC INC	106631	238.91			BUS REPR PARTS
202556	WEILLER AUTO & TRUCK	1	1352.30			BUS REPR PARTS
202520	HANS AUTO ELECTRIC INC	106631	154.45			BUS REPR PARTS
202520	HANS AUTO ELECTRIC INC	106631	238.91			BUS REPR PARTS
202493	A & L PARTS PLUS	106601	31.48			BUS REPR PARTS
202530	LAWSON PRODUCTS INC	106651	1.70-			LESS DISC
202493	A & L PARTS PLUS	106601	300.19			BUS REPR PARTS
202550	UNITY SCHOOL BUS PARTS	106691	222.76			BUS REPR PARTS
202550	UNITY SCHOOL BUS PARTS	106691	5.57			BUS REPR PARTS
202547	TRANSPORTATION ACCESS-	106681	27.36			BUS REPR PARTS
202547	TRANSPORTATION ACCESS-	106681	19.97			BUS REPR PARTS
202493	A & L PARTS PLUS	106601	134.61			BUS REPR PARTS
202545	SOUTHWEST BRAKE & PART	106671	30.18			BUS REPR PARTS
202545	SOUTHWEST BRAKE & PART	106671	268.36			BUS REPR PARTS
202493	A & L PARTS PLUS	106601	41.94			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	14.03			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	95.30			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	31.64			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	46.56			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	80.24			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	15.51			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	34.76			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	8.97			BUS REPR PARTS
202501	AUTO VALUE BRIGHTON	106591	55.24			BUS REPR PARTS
202493	A & L PARTS PLUS	106601	172.73			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	243.11			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	182.45			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	9.80			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	374.61			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	16.28			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	454.27			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	376.03			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	845.78			BUS REPR PARTS
202507	CAPITAL CITY INTERNATL	106611	226.39			BUS REPR PARTS
202508	CARDINAL BUS SALES &	1	214.04			BUS REPR PARTS
202493	A & L PARTS PLUS	106601	96.56			BUS REPR PARTS
202493	A & L PARTS PLUS	106601	869.16			BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	165.00			BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	269.04			BUS REPR PARTS

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CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202494	A PARTS WAREHOUSE	105131	36.11	1-1-271-5730-000-000-0000	BUS REPR PARTS	BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	143.70		BUS REPR PARTS	BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	339.68		BUS REPR PARTS	BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	45.62		BUS REPR PARTS	BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	204.73		BUS REPR PARTS	BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	98.00		BUS REPR PARTS	BUS REPR PARTS
202494	A PARTS WAREHOUSE	105131	123.20		BUS REPR PARTS	BUS REPR PARTS
ACCT TOTAL			9439.57			
202541	PLYMOUTH WAYNE INC	1	47.75	1-1-271-5730-000-000-0000	GARAGE OPERATION	GARAGE OPER 1/31
202555	WEISKOPF INDUSTRIES	106581	331.23		GARAGE OPERATION	GARAGE OPER 2/11
202541	PLYMOUTH WAYNE INC	1	138.40		GARAGE OPERATION	GARAGE OPER 2/28
202541	PLYMOUTH WAYNE INC	1	51.95		GARAGE OPERATION	GARAGE OPER 2/23
202543	SAFETY-KLEEN CORP	106741	212.93			
ACCT TOTAL			782.26			
202539	OFFICE EXPRESS INC	107641	172.12	1-1-271-5910-000-000-0000	BUS OFF SUP	TRANSP OFF SUP
202539	OFFICE EXPRESS INC	107641	145.67			TRANSP OFF SUP
202539	OFFICE EXPRESS INC	107641	122.89			TRANSP OFF SUP
ACCT TOTAL			440.68			
202539	OFFICE EXPRESS INC	1	77.64	1-1-284-5910-000-000-0000	SUPPLY - TECHNOLOGY	SUPPLY - TECHNOLOGY
ACCT TOTAL			77.64			
202542	SEG WORKERS COMPENSAT-	1	86992.00	1-2-192-0000-000-000-0000	PREPAID EXPENSES	WC 08-09 PMT #4 OF 4
202531	LIVINGSTON EDUCATIONAL	1	26906.04			PESG SUB TCHRS-2/21
202531	LIVINGSTON EDUCATIONAL	1	34008.74			PESG SUB TCHRS-3/7
ACCT TOTAL			147906.78			
202534	MICHIGAN PUBLIC SCHOOL	1	90026.42	1-2-451-0550-000-000-0000	MIP RETIREMENT	FEB MIP RETIREMENT
ACCT TOTAL			90026.42			
202534	MICHIGAN PUBLIC SCHOOL	1	100.00	1-2-451-0556-000-000-0000	TDP	TDP BUY/NONED/FEB
202534	MICHIGAN PUBLIC SCHOOL	1	300.00			TDP BUY/OUTSY/FEB
202534	MICHIGAN PUBLIC SCHOOL	1	100.00			TDP BUY/SERV/FEB
202534	MICHIGAN PUBLIC SCHOOL	1	15101.28			TDP BUY/UNIV/FEB
202534	MICHIGAN PUBLIC SCHOOL	1	250.00			TDP/MIP/BUYBACK/FEB
ACCT TOTAL			15851.28			
202537	NATL INSURANCE SERVICE	1	900.00	1-2-451-0650-000-000-0000	MEBS ADM-FRINGE	LIFE/LTD JAN-MAR
ACCT TOTAL			900.00			
202514	DELTA DENTAL	1	2030.82	1-2-451-0800-000-000-0000	MESSA INS-PR	DELTA DENTAL/DEC

BRIGHTON AREA SCHOOLS
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CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202514	DELTA DENTAL	1	2070.64	1-2-451-0800-000-0000	MESSA INS-PR	DELTA DENTAL/FEB
202514	DELTA DENTAL	1	2070.64			DELTA DENTAL/JAN
ACCT TOTAL			6172.10			
202534	MICHIGAN PUBLIC SCHOOL	1	472505.13	1-2-451-0852-000-000-0000	RETIREMENT DISTRICT	FEB RETIREMENT
ACCT TOTAL			472505.13			
202525	IDN-HARDWARE SALES INC 107464		10200.00	4-1-456-6220-000-459-0000	BLD IMP-OTHER	DOOR INSTALL/SPEN
202525	IDN-HARDWARE SALES INC 107464		10200.00			DOOR INSTALL/HRNG
ACCT TOTAL			20400.00			
202557	DAMAGE DEPOSIT REF	6	25.00	6-2-431-2210-031-000-0000	BHS DAMAGE DEP-BOOKS	CASSANDRA ALLEN
202558	DAMAGE DEPOSIT REF	6	25.00			HEATHER GALLAGHER
202559	DAMAGE DEPOSIT REF	6	27.90			CYNTHIA NOONAN
202560	DAMAGE DEPOSIT REF	6	25.00			SANDRA SKOLNIK
202561	DAMAGE DEPOSIT REF	6	25.00			RENEE WAGNER
202562	DAMAGE DEPOSIT REF	6	25.15			HEIDI WHITEMAN
ACCT TOTAL			153.05			
202519	GANNETT MI NEWSPAPERS	6	585.00	6-2-431-6290-031-000-0000	BHS NEWSPAPER	BHS TIMES/FEB
ACCT TOTAL			585.00			
202526	IKON OFFICE SOLUTIONS	6	56.00	6-2-431-6710-005-000-0000	HOR OFFICE	HRNG OFF/STAPLES/JAN
ACCT TOTAL			56.00			
202524	HUNGRY HOWIE'S PIZZA 112006		27.50	6-2-431-7130-006-000-0000	HIL PICTURES	HIL PIZZAS 2/23
ACCT TOTAL			27.50			
202510	COCA-COLA BTLG CO OF	6	1107.55	6-2-431-7850-031-000-0000	BHS SCHOOL STORE	HS STORE 3/2
202548	TREPCO SALES CO	6	933.88			HS STORE/CANDY/MAR
ACCT TOTAL			2041.43			
202565	MISC EXP	6	200.00	6-2-431-8160-031-000-0000	BHS STUDENT COUNCIL	AVERY BLACK
202566	MISC EXP	6	450.00			DAVID BRUSICH
202567	MISC EXP	6	50.00			JEREMY HEAD
202568	MISC EXP	6	100.00			MARCUS KAMAL
202569	MISC EXP	6	50.00			MATT KOSIN
202570	MISC EXP	6	50.00			JOSH WILLIAMS
ACCT TOTAL			900.00			
202571	MISC EXP	6	1000.00	6-2-431-8725-000-000-0000	ATH FOOTBALL	LAWRENCE MOSS
ACCT TOTAL			1000.00			

BRIGHTON AREA SCHOOLS
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CHECK NUMBER	VENDOR NAME	P O #	AMOUNT	ACCOUNT NUMBER	DESCRIPTION	INVOICE DESCRIPTION
202572	MISC EXP	6	186.96	6-2-431-8855-000-000-0000	ATHL TOURNAMENTS	SHARON THOMPSON
ACCT TOTAL			186.96			
202510	COCA-COLA BTLG CO OF	6	331.80	6-2-431-8860-000-000-0000	ATHL CONCESSIONS	ATH CONCESSIONS 2/12
202510	COCA-COLA BTLG CO OF	6	599.15			ATH CONCESSIONS 2/19
202510	COCA-COLA BTLG CO OF	6	682.65			ATH CONCESSIONS 2/26
ACCT TOTAL			1613.60			
GRAND TOTALS			1029320.83			

IX.A.1.



TO: Trustees, Board of Education

FROM: Bonnie P. Riutta, Interim Superintendent of Schools

RE: K-5 Science Curriculum

DATE: March 18, 2009

The K-5 Science curriculum realignment proposal is presented for Board discussion. Mrs. Liz Larwa, Spencer teacher, served on the state committee that developed Michigan's elementary science standards due to the new state mandated curriculum requirements.

The proposal has been reviewed by the district Curriculum Council and the Board Curriculum Committee. This item will be placed on the April 16, 2009 agenda for Board consideration.

March 18, 2009



TO: Bonnie Riutta

Baiba Jensen
Executive Director for Curriculum Services

FROM: Baiba Jensen

RE: Elementary Science Curriculum

One of the Board of Education goals for curriculum this year was the realignment of curriculum areas that have changed due to State mandated curriculum requirements. Last year the State of Michigan came out with new Grade Level Content Expectations for science and secondary science courses were realigned. This year we worked with the elementary level standards.

Liz Larwa, 4th grade teacher at Spencer, has been an integral part of the State Committee that developed Michigan's elementary science standards. She agreed to provide leadership to transition and realign our curriculum using existing materials as much as possible. Grade level representatives from all buildings worked with her to accomplish this task.

The vast majority of our resources from the 2001 science adoption were moved to appropriate grade levels and supplementary materials for the few gaps we do have will be funded through the Curriculum Office budget.

Curriculum Council and the Board Curriculum Sub-Committee have approved the attached K-5 science curriculum realignment proposal. I am requesting this be placed on the March 23, 2009 Board agenda for discussion.

jdl
Attachment

Brighton Area Schools

K – 5 Science Curriculum

March, 2009

2009 – 2010 PLAN

GRADE K	GRADE K RESOURCES	GRADE 1	GRADE 1 RESOURCES	GRADE 2	GRADE 2 RESOURCES	GRADE 3	GRADE 3 RESOURCES	GRADE 4	GRADE 4 RESOURCES	GRADE 5	GRADE 5 RESOURCES
MY EARTH		SORTING BY PROPERTIES		MEASUREMENT OF PROPERTIES		SOUND AND LIGHT (old)		EARTH, SUN, MOON (old)		EVOLUTION AND TRAITS OF ORGANISMS (new)	
BASIC NEEDS OF LIVING THINGS		LIFE CYCLES OF ANIMALS		LIFE CYCLES OF ANIMALS		STRUCTURES AND FUNCTIONS (new)		STRUCTURES AND FUNCTIONS (old)		POSITION AND MOTION OF OBJECTS IN THE SKY (new)	
OBSERVATIONS WITH SENSES		WEATHER		USES AND PROPERTIES OF WATER		CHANGES IN MOTION (new)		ELECTRICITY AND MAGNETISM (new)		ELECTRICITY AND MAGNETISM (old)	
PUSHES AND PULLS		SUNS WARMS THE EARTH		EARTH SURFACE FEATURES		EARTH MATERIALS CHANGE AND RESOURCES (new)		PROPERTIES AND CHANGES IN MATTER (new)		ANIMAL SYSTEMS (new)	

2010-2011 PLAN

GRADE K	GRADE K RESOURCES	GRADE 1	GRADE 1 RESOURCES	GRADE 2	GRADE 2 RESOURCES	GRADE 3	GRADE 3 RESOURCES	GRADE 4	GRADE 4 RESOURCES	GRADE 5	GRADE 5 RESOURCES
MY EARTH		SORTING BY PROPERTIES		MEASUREMENT OF PROPERTIES		SOUND AND LIGHT		EARTH, SUN, MOON		EVOLUTION AND TRAITS OF ORGANISMS	
BASIC NEEDS OF LIVING THINGS		LIFE CYCLES OF ANIMALS		PLANT LIFE (?)		STRUCTURES AND FUNCTIONS		ECOSYSTEMS (?) (new)		POSITION AND MOTION OF OBJECTS IN THE SKY	
OBSERVATIONS WITH SENSES		WEATHER		USES AND PROPERTIES OF WATER		CHANGES IN MOTION		ELECTRICITY AND MAGNETISM		FORCES AND MOTION (?) (new)	
PUSHES AND PULLS		SUNS WARMS THE EARTH		EARTH SURFACE FEATURES		EARTH MATERIALS CHANGE AND RESOURCES		PROPERTIES AND CHANGES IN MATTER		ANIMAL SYSTEMS	

Kindergarten

Observing With Senses

EXPECTATIONS	MATERIALS	ACTIVITIES
S.IP.00.11 Make purposeful observation of the natural world using the appropriate senses.	<i>Light</i> <i>Light and Shadow</i> <i>Patterns</i> <i>Sort It Out</i> <i>Sound</i> <i>Watching the Weather</i> <i>What Can Change</i>	

Pushes and Pulls

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>P.FM.00.11 Describe the position of an object (above, below, in front of, behind, on) in relation to other objects.</p> <p>P.FM.00.12 Describe the direction of a moving object (for example: away from or closer to) from different observers' view.</p> <p>P.FM.00.31 Demonstrate pushes and pulls on objects that can move.</p> <p>P.FM.00.32 Observe that objects initially at rest will move in the direction of a push or a pull.</p> <p>P.FM.00.33 Observe how pushes and pulls can change the speed or direction of moving objects.</p> <p>P.FM.00.34 Observe how the shape and mass of an object can affect motion.</p>	<i>Balance and Motion</i> <i>Push or Pull</i>	

Basic Needs of Living Things

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>L.OL.00.11 Recognize that living things have basic needs.</p> <p>L.OL.00.12 Identify and compare living and nonliving things.</p> <p>L.SE.00.12 Describe how earth materials contribute to plant and animal life.</p>	<p><i>Animals and Their Babies</i></p> <p><i>Ants</i></p> <p><i>Beaks</i></p> <p><i>Fly, Butterfly</i></p> <p><i>Fur, Feathers, Scales, Skin</i></p> <p><i>Grow, Seed Grow</i></p> <p><i>How Animals Move</i></p> <p><i>Living Things Need Water</i></p> <p><i>Look at the Tree</i></p> <p><i>Snails</i></p> <p><i>Squirrels</i></p>	

My Earth

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>E.SE.00.11 Identify earth materials that occur in nature (rocks, sand, soil, water).</p>	<p><i>Fall</i></p> <p><i>A Pond</i></p> <p><i>Rocks</i></p> <p><i>Spring, Summer, Fall, Winter</i></p> <p><i>In Spring</i></p> <p><i>In Summer</i></p> <p><i>Our Earth</i></p> <p><i>Water Changes</i></p> <p><i>We Need Water</i></p> <p><i>Winter</i></p>	

First Grade

Sorting by Properties

EXPECTATIONS	MATERIALS	ACTIVITIES
P.PM.01.11 Demonstrate the ability to sort objects according to observable properties such as color, shape, size, sinking and floating.	Grandma's Buttons Math Manipulatives SCIIS AIMS Objects in Nature Big Books	
P.PM.01.21 Demonstrate that water as a solid keeps its own shape. P.PM.01.22 Demonstrate that water as a liquid takes of the shape of various containers.	Experimentation	
P.PM.01.31 Identify materials that are attracted by magnets. P.PM.01.32 Observe that like poles of a magnet repel and unlike poles of a magnet attract.	AIMS – <i>Mostly Magnets</i> Big Book – <i>Mystery of Magnets</i> Magnets	

Animal Life

EXPECTATIONS	MATERIALS	ACTIVITIES
L.OL.01.13 Identify the needs of animals.	Big Book and Guide - <i>Animals and Their Babies</i> <i>I Can Make It. I Can Read It</i>	
L.OL.01.21 Describe the life cycle of animals including the following stages: egg, young,	FOSS Kit - Insects	

<p>characteristics (for example: body coverings, beak shape, number of legs, body parts) that are passed from parents to young.</p> <p>L.HE.01.12 Classify young animals based on characteristics that are passed on from parents (dogs/puppies, cats/kittens, cows/calves, chickens/chicks).</p>	<p>Science Alive!</p> <p>AIMS</p>	
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Weather

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>L.ES.01.21 Compare daily changes in the weather related to temperature (cold, hot, warm, cool); cloud cover (clear, cloudy, partly cloudy, foggy); precipitation (rain, snow, hail, freezing rain); wind (breezy, windy, calm).</p> <p>E.ES.01.31 Identify the tools that might be used to measure temperature, precipitation, cloud cover, and wind.</p> <p>E.ES.01.32 Observe and collect data of weather conditions over a period of time.</p>	<p><i>I Can Make It. I Can Read It. – Wild Weather</i></p> <p>Big Books</p>	<p>Calendar</p> <p>Graphing</p>

The Sun Warms the Earth

EXPECTATIONS	MATERIALS	ACTIVITIES
E.ES.01.11 Identify the sun as the most important source of heat, which warms the land, air, and water on the Earth. E.ES.01.12 Demonstrate the importance of sunlight and warmth in plant growth.		
E.ES.01.22 Describe and compare weather related to the four seasons in terms of temperature, cloud cover, precipitation, and wind. E.ES.01.23 Identify severe weather characteristics. E.ES.01.24 Describe precautions that should be taken for human safety during severe weather conditions (thunder and lightning, strong winds, and heavy precipitation).	Pocket books AIMS	

Second Grade

Measurement of Properties

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>P.PM.02.12 Describe objects and substances according to their properties (color, size, texture, hardness, liquid or solid, sinking or floating).</p> <p>P.PM.02.13 Measure the length of objects using rulers (centimeters) and meter sticks (meters).</p> <p>P.PM.02.14 Measure the volume of liquids using common measuring tools (measuring cups, measuring spoons, graduated cylinders, and beakers).</p> <p>P.PM.02.15 Compare objects using a balance.</p>	<p>FOSS Kit – <i>Solids and Liquids</i></p>	
<p>P.PM.02.41 Recognize that some objects are composed of single substances (water, sugar, salt) and others are composed of more than one substance (salt and pepper, mixed dry beans).</p>	<p>FOSS Kit – <i>Solids and Liquids</i> (part of kit)</p>	

Plant Life

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>L.OL.02.14 Identify the needs of plants.</p> <p>L.OL.02.22 Describe the life cycle of familiar flowering plants including the following stages: seeds, plant, flower, and fruit.</p> <p>L.HE.02.13 Identify characteristics of plants (for example: leaf shape, flower type, color, size) that are passed on from parent to young.</p>	FOSS Kit – <i>New Plants</i>	

Earth Surface Features

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>E.SE.02.21 Describe the major landforms of the surface of the Earth (mountains, plains, plateaus, valleys, hills).</p> <p>E.FE.02.21 Describe how rain collects on the surface of the Earth and flows downhill into bodies of water (streams, rivers, lakes, oceans) or into the ground.</p> <p>E.FE.02.22 Describe the major bodies of water on the Earth's surface (lakes, ponds, oceans, rivers, streams).</p>	<p>AIMS – <i>Primary Earth</i> p. vi – 23, 91 – 95</p> <p><i>Mountains*</i></p> <p><i>Follow the Water From Brook to Ocean*</i></p> <p><i>Landforms in a Park*</i></p> <p>Geography Terms Poster*</p> <p>Stream Table Kit*</p>	

*Materials not yet purchased

Uses and Properties of Water

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>E.FE.02.11 Identify water sources (wells, springs, lakes, rivers, oceans).</p> <p>E.FE.02.12 Identify household uses of water (drinking, cleaning, food preparation).</p> <p>E.FE.02.13 Describe properties of water as a liquid (visible, flowing, shape of container) and recognize rain, dew, and fog as water in its liquid state.</p> <p>E.FE.02.14 Describe the properties of water as a solid (hard, visible, frozen, icy) and recognize ice, snow and hail as water in its solid state.</p>	FOSS Kit – <i>Solids and Liquids</i> (part of kit)	

Third Grade

Changes in Motion

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>P.FM.03.22 Identify the force that pulls objects towards the Earth.</p> <p>P.FM.03.35 Describe how a push or a pull is a force.</p> <p>P.FM.03.36 Relate a change in motion of an object to the force that caused the change in motion.</p> <p>P.FM.03.37 Demonstrate how the change in motion of an object is related to the strength of the force acting upon the object and to the weight of the object.</p> <p>P.FM.03.38 Demonstrate when an object does not move in response to a force, it is because another force is acting on it.</p>	<p><i>Science Horizons –</i> Third Grade p. 182 – 201</p>	<p>K'Nex Kits</p>
<p>P.FM.03.41 Describe the motion of objects in terms of the path and direction.</p> <p>P.FM.03.42 Identify changes in motion (change direction speed up, slowing down).</p> <p>P.FM.03.43 Relate the speed of an object to the distance it travels in a standard amount of time.</p>	<p><i>Rally Round the Room –</i> "Pieces and Patterns in Math and Science"</p>	

Light and Sound

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>P.EN.03.11 Identify light and sound as forms of energy.</p> <p>P.EN.03.21 Demonstrate that light travels in a straight path and that shadows are made by placing an object in a path of light.</p> <p>P.EN.03.22 Describe what happens to light when it travels from air to water (a straw half in water and half in the air looks bent).</p> <p>P.PM.03.51 Demonstrate how some materials are heated more than others by light that shines on them.</p> <p>P.PM.03.52 Explain how we need light to see objects: light from a source reflects off objects and enters our eyes.</p>	<p><i>Science Horizons –</i> Third Grade p. 208 -228</p>	
<p>P.EN.03.31 Relate sounds to their sources of vibrations (for example: a musical note produced by plucking a guitar string, the sounds of a drum made by striking a drumhead).</p> <p>P.EN.03.32 Distinguish the effect of fast or slow vibrations as pitch.</p>	<p>FOSS Kit – <i>Physics of Sound</i></p>	

Structures and Functions of Living Things

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>L.OL.03.32 Identify and compare structures in animals used for controlling body temperature, support, movement, food getting, and protection (fur, wings, teeth, claws, scales).</p> <p>L.EV.03.13 Relate characteristics and functions of observable body parts to the ability of animals to live in their environment (for example: sharp teeth, claws, odor, body coverings).</p> <p>L.OL.03.42 Classify animals on the basis of observable physical characteristics (backbone, body covering, limbs).</p>	<p>FOSS Kit – <i>Structures of Living Things</i></p> <p><i>Science Horizons</i> – Third Grade p. 66 - 84</p>	
<p>L.OL.03.31 Describe the function of the following plant parts: flower, stem, root, and leaf.</p> <p>L. EV.03.11 Relate characteristics and functions of observable parts in a variety of plants that allow them to live in their environment (for example: leaf shape, thorns, odor, color).</p> <p>L.OL.03.41 Classify plants on the basis of observable physical characteristics (roots, leaves, stems, and flowers).</p>	<p>FOSS Kit – <i>Structures of Living Things</i></p> <p><i>Plants</i> by Evan Moor</p> <p>AIMS: The Budding Botanist</p> <p><i>Science Horizons</i> – Third Grade p. 32 -58</p>	

Earth Materials, Change, and Resources

[illegible]

<p>(erosion, glaciers, volcanoes, landslides, and earthquakes.</p> <p>E.SE.03.31 Identify earth materials used to construct some common objects (bricks, buildings, roads, glass).</p> <p>E.SE.03.32 Describe how materials taken from Earth can be used as fuels for heating and transportation.</p>	<p>Habitat For Humanity HS Consortium Class Building</p>	
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Fourth Grade

Relationships and Requirements of Living Things

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>L.OL.04.15 Determine that plants require air, water, and a source of energy and building material for growth and repair.</p> <p>L.OL.04.16 Determine that animals require air, water, and a source of energy and building material for growth and repair.</p> <p>L.EC.04.11 Identify organisms as part of a food chain or food web.</p> <p>L.EC.04.21 Explain how environmental changes can cause a change in the food web.</p> <p>L.EV.04.21 Identify individual differences (color, leg length, size, wing size) in organisms of the same kind.</p> <p>L.EV.04.22 Identify how variations in physical characteristics of individual organisms give them an advantage for survival and reproduction.</p>	<p><i>Science Horizons – Fourth Grade</i> p. 126 – 144</p> <p><i>Food Chains and Food Webs</i> Crabtree Publishing</p> <p><i>Project Wild</i></p> <p>SCIIS – <i>Food Chains and Food Webs</i></p>	
<p>E.ST.04.31 Explain how fossils provide evidence of the Earth’s past.</p> <p>E.ST.04.32 Compare and contrast life forms found in fossils and organisms that exist today.</p>	<p><i>Science Plus – Sixth Grade</i> p. 360-369</p> <p><i>Science Horizons – Third Grade</i> “Digging Up Dinosaurs”</p> <p><i>Science Horizons –</i></p>	

	Fourth Grade p. 308 - 311	
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Earth, Sun, Moon

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>E.ST.04.11 Identify the sun and the moon as common objects in the sky.</p> <p>E.ST.04.12 Compare and contrast the characteristics of the sun, moon, and Earth, including relative distances and abilities to support life.</p> <p>E.ST.04.21 Describe the orbit of the Earth around the sun as it defines a year.</p> <p>E.ST.04.22 Explain that the spin of the Earth creates day and night.</p> <p>E.ST.04.23 Describe the motion of the moon around the Earth.</p> <p>E.ST.04.24 Explain how the visible shape of the moon follows a predictable cycle which takes approximately one month.</p> <p>E.ST.04.25 Describe the apparent movement of the sun and the moon across the sky through day/night and the seasons.</p>	<p><i>Science Horizons – Fourth Grade</i> p. 260 – 264</p> <p><i>Science Horizons – Third Grade</i> p. 248 - 257</p> <p><i>AIMS</i></p>	<p>Star Lab</p>

Electricity and Magnetism

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>P.EN.04.12 Identify heat and electricity as forms of energy.</p> <p>P.EN.04.41 Demonstrate how temperature can be increased in a substance by adding energy.</p> <p>P.EN.04.42 Describe heat as the energy produced when substances burn, certain kinds of materials rub against each other, and when electricity flows through wire.</p> <p>P.EN.04.43 Describe how heat is produced through electricity, rubbing, and burning.</p>	<p><i>Science Horizons – Fourth Grade</i> p. 220 – 240</p> <p><i>Holt Science and Technology – Electricity and Magnetism</i> p. 17, 18</p>	
<p>P.EN.04.51 Demonstrate how electrical energy is transferred and changed through the use of a simple circuit.</p> <p>P.EN.04.52 Demonstrate magnetic effects in a simple electric circuit.</p> <p>P.PM.04.53 Identify objects that are good conductors or poor conductors of heat and electricity.</p>	<p><i>Holt Science and Technology – Electricity and Magnetism</i> p. 22 - 25</p>	
<p>P.PM.04.33 Demonstrate magnetic field by observing the patterns formed with iron filings using a variety of magnets.</p> <p>P.PM.04.34 Demonstrate that magnetic objects are affected by the strength of the magnet and the distance from the magnet.</p>	<p><i>Holt Science and Technology – Electricity and Magnetism</i> p. 38 – 40, 43 - 45</p>	

Properties and Changes in Matter

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>P.PM.04.16 Measure the weight (spring scale) and mass (balances) in grams or kilograms.</p> <p>P.PM.04.17 Measure volume of liquids in milliliters and liters.</p> <p>P.PM.04.23 Compare and contrast the states (solid, liquid, and gas) of matter.</p> <p>P.PM.04.11 Explain how matter can change from one state (solid, liquid, and gas) to another by heating and cooling.</p>	<p><i>Science Horizons</i> – Fourth Grade p. 164 – 184</p> <p>FOSS Kit – <i>Mixtures and Solutions</i> (parts of the kit that relate to measurement of changes in matter)</p>	

Fifth Grade

Position and Motion of Objects in the Sky

EXPECTATIONS	MATERIALS	ACTIVITIES
E.ES.05.61 Demonstrate and explain seasons using a model. E.ES.05.62 Explain how the revolution of the Earth around the sun defines a year.	<i>Science Horizons-</i> Fourth Grade p. 266 - 271 <i>Science Horizons-</i> Fifth Grade p. 434 - 436	
E.ST.05.11 Design a model of the solar system that shows the relative order and scale of the planets, dwarf planets, comets, and asteroids to the sun. E.ST.05.21 Describe the motion of the planets and moons in terms of rotation on axis and orbits due to gravity. E.ST.05.22 Explain the phases of the moon. E.ST.05.23 Explain the apparent motion of the stars (constellations) and the sun across the sky. E.ST.05.24 Explain lunar and solar eclipses. E.ST.05.25 Explain the tides of the oceans as they relate to the gravitational pull and orbit of the moon.	<i>Science Horizons-</i> Fifth Grade p. 446 - 460 <i>Science Horizons-</i> Fourth Grade p. 272 – 275 <i>Science Horizons-</i> Fourth Grade p. 276 - 280	Star Lab

Animal Systems

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>L.OL.05.41 Identify the general purpose of selected animal systems (digestive, circulatory, respiratory, skeletal, muscular, nervous, excretory, and reproductive).</p> <p>L.OL.05.42 Explain how animal systems (digestive, circulatory, respiratory, skeletal, muscular, nervous, excretory, and reproductive) work together to perform selected activities.</p>	<p><i>Science Horizons – Fifth Grade p. 480 – 485, 494 – 504, 512 – 536</i></p> <p><i>Science Horizons – Fourth Grade p. 388 – 406, 414 - 432</i></p>	

Evolution and Traits of Organisms

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>L.HE.05.11 Explain that both the environment and the genetics of the individual influence the traits of an individual.</p> <p>L.HE.05.12 Distinguish between inherited and acquired traits.</p>		
<p>L.EV.05.11 Explain how behavioral characteristics (adaptation, instinct, learning, habit) of animals help them to survive in their environment.</p> <p>L.EV.05.12 Describe the physical characteristics (traits) of organisms that help them to survive in their environment.</p> <p>L.EV.05.13 Describe how fossils provide evidence about</p>	<p><i>Science Horizons – Fourth Grade p. 100 - 118</i></p>	

<p>how living things and environmental conditions have changed.</p> <p>L.EV.05.14 Analyze the relationship of environmental change and catastrophic events (for example: volcanic eruption, floods, asteroid impact, tsunami) to species extinctions.</p>		
<p>L.EV.05.21 Relate the degree of similarity in anatomical features to the classification of contemporary organisms.</p>		

Measuring Changes in Motion

EXPECTATIONS	MATERIALS	ACTIVITIES
<p>P.FM.05.21 Distinguish between contact forces and non-contact forces.</p> <p>P.FM.05.22 Demonstrate contact and non-contact forces to change the motion of an object.</p> <p>P.FM.05.31 Describe what happens when two forces act on an object in the same or opposing directions.</p> <p>P.FM.05.32 Describe how constant motion is the result of balanced (zero net) forces.</p> <p>P.FM.05.33 Describe how changes in the motion of objects are caused by a nonzero net (unbalanced) force.</p> <p>P.FM.05.34 Relate the size of change in motion to the strength of unbalanced forces and the mass of the object.</p>	<p><i>Science Horizons – Fourth Grade p. 192 - 201</i></p> <p><i>Science Horizons – Fifth Grade p. 232 - 245</i></p>	

<p>P.FM.05.41 Explain the motion of an object relative to a point of reference.</p> <p>P.FM.05.42 Describe the motion of an object in terms of distance, time and direction, as the object moves, and in relationship to other objects.</p> <p>P.FM.05.43 Demonstrate how motion can be measured and represented on a graph.</p>	<p>AWIM (A World in Motion)</p>	
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Sample

Third Grade GLCE Companion Document

Unit 2: Light and Sound

SCIENCE

- Big Ideas
- Clarifications
- Inquiry
- Vocabulary
- Instruments
- Measurements
- Instructional Framework
- Enrichment
- Intervention
- Real World Context
- Literacy Integration
- Mathematics Integration

Third Grade Companion Document 3-Unit 2: Light and Sound

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3rd Grade Unit 2: Light and Sound

Content Statements and Expectations

Code	Statements & Expectations	Page
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P.EN.E.2	Light Properties – Light travels in straight lines. Shadows result from light not being able to pass through an object. When light travels at an angle from one substance to another (air and water), it changes directions.	4
P.EN.03.21	Demonstrate that light travels in a straight path and that shadows are made by placing an object in a path of light.	4
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P.EN.E.3	Sound – Vibrating objects produce sound. The pitch of sound varies by changing the rate of vibration.	5
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P.PM.E.5	Conductive and Reflective Properties – Objects vary to the extent they absorb and reflect light energy and conduct heat and electricity.	6
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P.PM.03.52	Explain how we need light to see objects: light from a source reflects off objects and enters our eyes.	7

3 – Unit 2: Light and Sound

Big Ideas (Key Concepts)

- Light and sound are forms of energy.
- Light and sound can be described by their properties.
- Light travels in a straight path.
- Vibrations produce sound.

Clarification of Content Expectations

Standard: Energy

Content Statement – P.EN.E.1

Forms of Energy – Heat, electricity, light, and sound are forms of energy.

Content Expectation

P.EN.03.11 Identify light and sound as forms of energy.

Instructional Clarifications

1. Identify means to recognize light and sound as forms of energy.
2. The term energy is difficult for third grade students to understand. It is not matter; it does not have mass. It takes energy to make things happen. Energy is the ability to cause change. Evidence of light as a form of energy is through heating. Evidence of sound as a form of energy is through the observation of vibrations.
3. Third grade students need only to observe (using appropriate senses) light and sound energy and describe how they cause change.
4. (Visible) light is necessary for life on Earth. It is essential for photosynthesis and gives colors to objects. Light energy from the sun is changed to heat energy on Earth and is used by plants and all living things. Our primary source of light energy is the sun.
5. Vibrating objects cause sound waves that can then cause other matter to vibrate.

Assessment Clarifications

1. Light is a form of energy. Most light energy comes from the sun.
2. Sound is a form of energy. Vibrating objects cause sound waves.
3. Energy is the ability to cause change. Evidence of light as a form of energy is through heating. Evidence of sound as a form of energy is through the observation of vibrations.

Content Statement – P.EN.E.2

Light Properties – Light travels in a straight path. Shadows result from light not being able to pass through an object. When light travels at an angle from one substance to another (air and water), it changes directions.

Content Expectations

P.EN.03.21 Demonstrate that light travels in a straight path and that shadows are made by placing an object in a path of light.

Instructional Clarifications

1. Demonstrate is to show through manipulation of materials, drawings, and written and verbal explanations that light travels in a straight path and shadows are made by placing an object in a path of light.
2. Light travels in straight paths, which move out from the source until they hit or interact with something. When light strikes an object, it is reflected, passes through or absorbed.
3. A shadow is formed when an opaque object blocks the path of light (does not allow light to pass through).
4. A common misconception is that shadows are independent of the object that causes them and that a light source and its effects are not separate.

Assessment Clarifications

1. Light travels in a straight path that moves out from a source until it hits something.
2. Shadows are made when an object is placed in the path of light.

P.EN.03.22 Describe what happens to light when it travels from air to water (a straw half in water and half in the air looks bent).

Instructional Clarifications

1. Describe means to tell or depict in spoken or written words the path of light when it travels from water to air or air to water.
2. Light travels at tremendous speeds. When it travels through transparent mediums such as glass, air, or water, it slows down. It slows down at different rates for different mediums. When it slows, light rays are bent as they pass through. This change is called refraction.
3. Students' experiences should include observations of objects in water, out of water, half in and half out of water. Students may investigate other transparent substances such as alcohol, oil, corn syrup.
4. Third graders do not need to understand why light bends (refraction). They only need to observe that objects appear to bend when observed through different mediums.

Assessment Clarification

1. Students' experiences should include observations of objects in water, out of water, half in and half out of water.

Content Statement – P.EN.E.3

Sound – Vibrating objects produce sound. The pitch of sound varies by changing the rate of vibration.

Content Expectations

P.EN.03.31 Relate sounds to their sources of vibrations (for example: a musical note produced by plucking a guitar string, the sounds of a drum made by striking a drumhead).

Instructional Clarifications

1. Relate means to establish an association or connection between sounds and their sources of vibration.
2. Vibrating objects produces sound waves.
3. The sound vibrations are transmitted to anything the vibrating object touches, including air.
4. Sound travels through matter; light travels through a vacuum or through matter. Sound cannot travel through outer space where there is no air (matter), but light can travel through outer space.
5. Sound waves travel out in every direction from a source. When a guitar string is plucked, the vibrating string pushes against the adjacent air molecules causing them to vibrate. The air molecules push against neighboring air molecules until the vibrating air molecules reach a receiver such as an eardrum.
6. Vibrations cause sound waves from a source such as guitar string or a drumhead.
7. A common misconception is that sound cannot travel through solids and liquids.
8. A common misconception is that sound can travel through a vacuum, such as space.
9. A common misconception is that sound can be produced without using any materials.
10. A common misconception is that hitting an object harder changes the pitch of the sound produced.

Assessment Clarifications

1. Vibrating objects produces sound.
2. Vibrations cause sound waves from a source such as a guitar string or a drumhead.
3. The source of vibrations can include plucking, striking, hitting, etc.

P.EN.03.32: Distinguish the effect of fast or slow vibrations as pitch.

Instructional Clarifications

1. Distinguish means to recognize or know the difference between a low and high pitch caused by slow or fast vibrations.
2. Sounds can have a high or low pitch.
3. Pitch depends on the speed of vibrations. An object that vibrates very fast sends more vibrations to the ear drum per second, and the brain

interprets it as a high pitch. When an object vibrates slowly, a lower pitch is heard.

4. Students' experiences include the plucking of guitar strings or other stringed instruments (high and low), stretching rubber bands to create high and low pitches.

Assessment Clarifications

1. Sounds can have a high or low pitch.
2. Slow vibrations produce a low pitch; fast vibrations produce a high pitch.

Standard: Properties of Matter

Content Statement – P.PM.E.5

Conductive and Reflective Properties – Objects vary to the extent they absorb and reflect light energy and conduct heat and electricity.

Content Expectations

P.PM.03.51 Demonstrate how some materials are heated more than others by light that shines on them.

Instructional Clarifications

1. Demonstrate is to show through manipulation of materials, drawings, and written and verbal explanations how some materials are heated more than others by light that shines on them.
2. Light energy can be converted to heat or thermal energy when certain materials absorb it.
3. Dark materials absorb more of the visible spectrum of light. The absorbed light energy is converted and is released as heat energy. Since more of the spectrum is absorbed there is more energy that is converted to heat. Light colored materials absorb less and reflect more of the light spectrum (less energy) so less energy is released as heat.
4. Dark materials absorb more light energy; light colored materials reflect more light energy.
5. Student experiences should include multiple opportunities to use light bulbs and sunlight to heat a variety of materials including light colored sand vs. soil, light colored paper vs. dark paper, light colored hat vs. dark hat.
6. Students' experiences include using a thermometer to compare temperatures in degrees Celsius. The emphasis for third graders is warmer and cooler.
7. This content expectation can easily be taught in conjunction with P.EN.03.2 – Light Properties.
8. A common misconception at this age is that while light is reflected by mirrors, it remains on other objects

Assessment Clarifications

1. Dark materials absorb more light energy; light colored materials reflect more light energy.
2. Assessment is restricted to the use light bulbs and sunlight to heat materials such as light colored sand vs. soil and light colored paper vs. dark paper.
3. Assessment is restricted to the use of a thermometer to compare temperatures in degrees Celsius (warmer, cooler, same).

P.PM.03.52 Explain how we need light to see objects: light from a source reflects off objects and enters our eyes.

Instructional Clarifications

1. Explain means to clearly describe by means of illustrations (drawing), demonstrations, written reports or verbally how we need light to see objects.
2. We see objects because they either emit light or reflect light.
3. Light travels in straight lines from a source such as the sun or a light bulb. When light strikes an object, it is reflected, absorbed, or it passes through the object.
4. When light is reflected or bounces off an object, the light waves travel in straight lines until they reach the eye. The light enters the eye through the pupil and we see the object.
5. This content expectation can easily be taught in conjunction with P.EN.03.2 – Light Properties.
6. A common misconception at this grade level is that the eye gathers light.
7. A common misconception is that we can see in a completely darkened room.

Assessment Clarification

1. When light is reflected or bounces off an object, the light travels in straight lines until it reaches the eye. The light enters the eye and we see the object.

Inquiry Process, Inquiry Analysis and Communication, Reflection and Social Implications

Inquiry Process

S.IP.03.11 Make purposeful observations concerning sound and light

S.IP.03.12 Generate questions based on observations to understand sound and light.

S.IP.03.13 Plan and conduct simple and fair investigations of sound and light.

S.IP.03.14 Manipulate simple tools that aid observation and data collection in investigations of sound and light.

S.IP.03.15 Make accurate measurements with appropriate units for the measurement tool.

S.IP.03.16 Construct simple charts and graphs from data and observations dealing with sound and light.

Inquiry Analysis and Communication

S.IA.03.11 Summarize information from data tables and graphs to answer scientific questions about sound and light.

S.IA.03.12 Share ideas about sound and light through purposeful conversation in collaborative groups.

S.IA.03.13 Communicate and present findings of observations and investigations about sound and light using evidence.

Reflection and Social Implications

S.RS.03.11 Demonstrate scientific concepts concerning sound and light through various illustrations, performances, models, exhibits, and activities.

S.RS.03.14 Use data/samples as evidence to separate fact from opinion regarding sound and light.

S.RS.03.15 Use evidence in making scientific decisions about sound and light.

S.RS.03.16 Identify technology associated with sound and light.

S.RS.03.17 Identify current problems on sound and light that may be solved through the use of technology.

S.RS.03.17 Describe how people have contributed to the science of sound and light throughout history and across cultures.

Vocabulary

Critically Important – State Assessable	Instructionally Useful
light path of light sound sound source light source forms of energy vibrations thermometer degrees Celsius light absorption light reflection shadow pitch sun as a source of energy effect	energy heat light rays light refraction opaque transparent translucent guitar drumhead

Instruments, Measurements, Representations

Temperature	Thermometer	Celsius Fahrenheit
With assistance third grade students enter information into a data table to keep track of findings throughout the investigations in sound and light. While students are not expected to measure angles in degrees, they should be able to use alternative means to find the size of an angle and compare it to other angles.		

Instructional Framework

The following Instructional Framework is an effort to clarify possible units within the K-7 Science Grade Level Content Expectations. The Instructional Framework provides descriptions of instructional activities that are appropriate for inquiry science in the classroom and meet the instructional goals. Included are brief descriptions of multiple activities that provide the learner with opportunities for exploration and observation, planning and conducting investigations, presenting findings, and expanding thinking beyond the classroom. The Instructional Framework is NOT a step-by-step instructional manual, but a guide intended to help teachers and curriculum developers design their own lesson plans, select useful and appropriate resources and create assessments that are aligned with the grade level science curriculum for the State of Michigan.

Instructional Example – Light Energy

Light Energy

Forms of Energy: P.EN.03.11

Light Properties: P.EN.03.21, P.EN.03.22

Conductive and Reflective Properties: P.PM.03.51, P.PM.03.52

Objectives

- Make observations about how light travels in straight lines.
- Demonstrate how a shadow is formed.
- Make observations of light traveling through air and water and of light changing direction.
- Measure differences in temperatures of some materials when light shines on them.
- Explain how light is reflected from objects and enters our eyes in order for us to see those objects.

Engage and Explore

- In a discussion, ask students what they already know about light and about sources of light. To guide the discussion, use questions such as: What happens when the lights are turned on in a dark room? How are we able to see objects? Can we see without light? What happens when light hits an object? What is our main source of light? (sun) Record observations and ideas and questions that are generated on chart paper and post for reference during the unit on light. (S.IP.03.12, S.IA.03.12)
- The guiding question for this activity is: How does light travel? Use flashlights and approximately six - 3x5 index cards with holes per group of students. (Punch holes in the same spot through five of the cards. Students use the sixth card as a target and try to line up the cards so that

the light hits the target.) Students discover that the cards need to be lined up in a straight line in order for the light to pass through the holes and hit the target. Students conclude that light does not bend. Light travels in straight lines. Continue to record observation, ideas and questions generated during the activity. Record on chart paper for future reference. (P.EN.03.21, S.IP.03.11, S.IP.03.12)

- Distribute a mirror to each student. Students observe themselves in the mirror. Instruct students to move the mirror to the side until they see the person behind them. Ask: Can the person behind you see your face? Can you see your own face? Students manipulate the mirror and make observations. Record observations on a chart entitled: "Properties of Light." (P.EN.03.21, S.IP.03.11)
- Teacher preparation: Cut a narrow slit (just a few millimeters wide) in the center along one edge of a 3 x 5 index card (note: black cardstock works better). Tape the card over the front of a flashlight so that the open end of the slit just meets the edge of the flashlight. Turn on the flashlight and set it on a sheet of white paper on a flat surface. Adjust the flashlight so there is a narrow beam of light along the length of the paper. Place a mirror without a frame upright at the end of the paper propped up by a book. Lay the flashlight on a table at one end of the white paper.
- Students shine the light through the slit along the white paper onto the mirror. They should see both the incoming and the reflected beam on the paper. Have students make observations about the light as they see it go to the mirror and away from the mirror. What types of things did they notice? Encourage students to manipulate the flashlight and the mirror.
- Trace the incoming and reflected beams of light on the paper. Although students of this age won't be able to measure angles and get an accurate drawing of the path of the light being reflected by the mirror, they should see that it forms angles or triangles that look the same going from the flashlight to the mirror and away from the mirror. Add to the chart entitled "Properties of Light" that light can be reflected. (P.EN.03.21, S.IP.03.11)

Explain and Define

- Students discuss and share their ideas of how light travels in straight lines and what happens when it hits a surface like a mirror. The idea that it travels in straight lines should start to become apparent. Add to the chart entitled "Properties of Light" that light travels in straight lines. (P.EN.03.21)
- Student observations of the light activities are recorded in a lab book or science journal. (S.IP.03.11, S.IP.03.12)
- Explain and create definitions for: *reflection*, *source*, and *path of light*. Give descriptive examples of each of the terms using written words, diagrams and pictures. Record definition examples in student journals. (P.EN.03.21)
- As students move through the unit, add the terms: *refraction*, *transparent*, *translucent*, and *opaque* to student journals. (P.EN.03.21)

Elaborate and Apply

- Explore the question, How does light behave when it interacts with different objects? Design an investigation to explore how light interacts with various surfaces. Provide groups of students with flashlights, mirrors, aluminum foil, glass or clear plastic, waxed paper, etc. As students explore the materials with their flashlight, they create a chart to record their findings. Through class discussion, students develop an understanding of transparent, translucent and opaque objects and whether or not they create shadows. Add to the "Properties of Light" chart that light can be absorbed or reflected. (S.IP.03.11, S.IP.03.16)
- Cut out a variety of shapes from opaque material or use a variety of opaque objects. Students use the shapes to block light and form shadows. They explore shadows by manipulating the objects on a piece of white paper, using different sources of light. Trace the shadow on the paper and record observations. Predict the shape of a shadow given a source of light and an object. (P.EN.03.21, S.IP.03.11, S.IP.03.12, S.IP.03.13, S.IP.03.14, S.IP.03.16, S.IA.03.12, S.IA.03.13, S.RS.03.11, S.RS.03.14, S.RS.03.15)
- Place a pencil in a cup of water or through a zip type bag full of water and observe what happens to the appearance of the pencil. Use a tank of water and have students view objects in the water from all angles including from under the surface looking up. In collaborative groups, students discuss their observations. As questions arise in their discussions, students research the answers. Students create a graphic organizer or model to demonstrate the path of light as it enters water. Note: Third grade students do not need to understand that the speed of light varies as it travels through different media. Third grade students simply make observations. (P.EN.03.22, S.IP.03.11)
- Introduce the question; Is light a form of energy? With the assistance of the teacher, students use thermometers in dark colored materials and white/light colored materials placed under a lamp or sunlight. Students record observations on charts. The activity is repeated two more times for accurate results. In collaborative groups, students share their ideas about the differences in the temperatures recorded. They communicate their findings. Using the evidence gathered during the activity, they conclude that light is a form of energy because the light energy is transformed to heat energy. There is a change in temperature. (P.PM.03.51, S.IP.03.14, S.IP.03.15, S.IP.03.16, S.IA.03.11, S.RS.03.14)
- Ask: Do we need light to see? How do you know? Students record their ideas in student journals. If appropriate, take students into a room that can be darkened completely. Turn off the lights. Discuss what they can see. Is the room completely dark? In a darkened room with a mirror (a bathroom is perfect), students look at their eyes in the mirror with the flashlight on, then off, then on. They discuss their observations. Students answer the question, How does light get into our eyes? Using the concepts presented in earlier activities, discuss that light travels in

straight lines. Share ideas that when light hits an object it is reflected and enters our eyes. (P.PM.03.52, S.IP.03.11, S.IP.03.12)

- Students design a simple investigation based on a question generated from the "Properties of Light" chart, i.e. can light be reflected more than one time? They use appropriate tools of observation and construct simple charts and graphs from data and observations. Students summarize information and communicate findings. (P.EN.03.21, P.EN.03.22, S.IP.03.13, S.IP.03.14, S.IP.03.16, S.IA.03.11, S.IA.03.12, S.IA.03.13)

Evaluate Student Understanding

Formative Assessment Examples

- Monitor discussions on light for student understanding. (P.EN.03.11, P.EN.03.21, P.EN.03.22, P.PM.03.51, P.PM.03.52)
- Check student lab books or science journals for understanding. Do students make predictions based previous experiences? Are students demonstrating increased application of previous observations to new experiences? Are students making connections? (P.EN.03.11, P.EN.03.21, P.EN.03.22, P.PM.03.51, P.PM.03.52)

Summative Assessment Examples

- Students design a simple investigation to explore the properties of light (light travels in straight lines, light is reflected). (P.EN.03.21, P.EN.03.22)
- Predict and draw the shape of a shadow based on the object and the source of light. (P.EN.03.21)
- Draw a picture of a pencil half in and half out of water. (P.EN.03.22)

Enrichment

- Make sundials on the playground.
- Check shadows at various times of the day, outline in chalk, and compare.
- Investigate natural and man-made sources of light.
- Extend the refraction of light activity by introducing various clear liquids such as oil, vinegar, clear soda.
- Research the structure and function of the eye. Conduct an eye dissection (preserved or web-based).
- Use a prism to refract visible light. Make rainbows.
- Make a periscope.
- Make a kaleidoscope.
- Student science journals, written explanations of investigations, letters to "absent" students explaining the activities of the day all are good ways to integrate writing into this unit.
- Pod cast sessions about light and explain in cooperative groups the ideas associated with this unit.

Intervention

- Investigate light bulbs to explore the concept that light is a form of energy.
- Conduct a scavenger hunt for light sources around the school. Classify as natural or man-made light.
- Create shadow plays with students.
- Using a jar or tank of water, place various objects in, half in, and out of the water. Draw observations. Share ideas at home.
- Using water, a clear cup and a brightly colored sticker, place the sticker on the table. Place the empty cup on the sticker. View the sticker from a 45-degree angle. Slowly pour water into the cup. Record or discuss observations. What does the sticker look like when viewed from the side of the cup? The top of the cup? Explain the differences. Put their thumb in the cup of water. Discuss observations.
- Using thermometers, explore different areas of the playground on a sunny day. Take temperatures in the shade, the sun, under objects. Discuss results.
- Create a word wall with illustrations to assist students with vocabulary.
- Read texts to reinforce concepts.
- Illustrate important concepts for clarification and evidence of understanding.

Examples, Observations, and Phenomena (Real World Context)

Light is all around in many different forms. We use a variety of natural and man-made light sources everyday. Different kinds of lighting such as fluorescent bulbs, mercury-vapor lighting in parking lots, and the multiple uses of laser light are more energy efficient. The sun is the major light source for life on Earth. Scientists have developed technology to capture the light from the sun to be used for solar energy that generates electricity for heating, cooling and lighting. Light energy can also be stored through technology for future use.

Photography and the use of cameras show how light and the human eye behave. Light is necessary for sight. Light strikes an object and is reflected for the eye to perceive the image. Scientists and inventors use the properties of light to make televisions, computer screens, lasers, and many other tools and devices that are used in homes, hospitals, industry, and agriculture. Lewis Howard Latimer and Thomas Edison were pioneers in understanding and applying the properties of light to make useful contributions to society.

Literacy Integration

Reading

R.CM.03.01 connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.

R.CM.03.02 retell in sequence the story elements of a grade level narrative text and major idea(s) and relevant details of grade level informational text.

Examples of trade books available for learning about light are:

Day Light, Night Light, Let's Read and Find Out Series 2, by Branley and Schett, 1998

Bear Shadow, by Asch, 1985

Hatchet by Gary Paulsen, 1987

- Use the chapter in *Hatchet*, where Brian tries to spear fish. He finally figures out that he has to aim differently because of the refraction of the water. Set up a tank and place a weighted plastic frog or fish in the water. Give the opportunity to try spear fishing and make observations of the location of the fish as observed through the water.

Writing

W.GN.03.03 write an informational piece including a report that demonstrates the understanding of central ideas and supporting details using an effective organizational pattern (i.e. compare/contrast, cause/effect, problems/solutions) with a title, heading, subheading, and a table of contents.

W.GN.03.04 use the writing process to produce and present a research project; initiate research questions from content area text from a teacher-selected topic; and use a variety of resources to gather and organize information.

Speaking

S.DS.03.04 plan and deliver presentations using an effective informational organizational pattern (e.g. descriptive, problem/solution, cause/effect) supportive facts and details, reflecting a variety of resources, and vary the pace for effect.

Instructional Framework

Instructional Example- Sound Energy

Energy

Sound: P.EN.03.31, P.EN.03.32

Objectives

- Demonstrate that vibrating objects produce sound energy.
- Distinguish fast and slow vibrations as pitch.
- Explain that pitch and volume are two characteristics of sound.
- Observe that a change in the way an object vibrates affects the pitch and volume of the sound produced.
- Demonstrate that changing the length, tension, or thickness of a string affects the frequency of the vibrations and, therefore, the pitch of the sound produced.

Engage and Explore

- Go outside and have students make observations using their sense of hearing. Have students make a list of all the sounds they hear and then classify the sounds as natural or man-made (manufactured). (P.EN.03.31, S.IP.03.11)
- Ask students to describe their ideas of how sounds are made. (P.EN.03.32)
- Hold a plastic ruler on a table so that half of the ruler hangs out over the edge of the table. Pluck the free end of the ruler lightly and again with more force. The ruler vibrates producing a sound. Students record and discuss observations of the difference in sounds. Move the ruler to a different length, either longer or shorter, and repeat using the same force when plucking. Students make observations and discuss the difference in the sounds. How did the length of the ruler affect the sound? Record observations and create a class chart for questions and ideas about sound. (P.EN.03.31, P.EN.03.32, S.IP.03.11, S.IP.03.12, S.IP.03.13, S.IP.03.16, S.IA.03.11, S.IA.03.12, S.IA.03.13, S.RS.03.11, S.RS.03.14, S.RS.03.15)
- Provide a variety of toys that produce sound such as whirling tubes, clackers, buzzers, etc. Students explore the "Sound Museum" and make observations. Identify how the sounds are produced. (P.EN.03.31, P.EN.03.32, S.IP.03.11, S.IP.03.12, S.IP.03.13, S.IP.03.16, S.IA.03.11, S.IA.03.12, S.IA.03.13, S.RS.03.11, S.RS.03.14, S.RS.03.15)

Explain and Define

- Have students choose one of the toys or an instrument and explain how it produces sound. (P.EN.03.31, P.EN.03.32)
- Create operational definitions for the words sound, vibration, and pitch. (P.EN.03.31, P.EN.03.32)
- Draw a diagram of a high-pitched sound wave and a low-pitched sound wave. Have students make connections between the diagrams and the sounds from different instruments. (P.EN.03.31 and P.EN.03.32)

Elaborate and Evaluate

- Students make own instruments with rubber bands, string, boxes, straws, etc. Students record and share what they observe about the various "instruments" they made. (P.EN.03.31, P.EN.03.32, S.RS.03.11)
- Create drums using different sized containers and materials for the drumhead. Explore tightening and loosening the drumheads. Students record and share what they observe. (P.EN.03.31, P.EN.03.32, S.IP.03.11, S.IP.03.12, S.IA.03.12, S.RS.03.11, S.RS.03.14)
- Create straw whistles of different lengths. Students record the highs and lows of the pitch and compare it with the length of the column of air/straw. (P.EN.03.31, P.EN.03.32, S.IP.03.11, S.RS.03.11)
- Borrow stringed instruments from the music teacher. Students explore the effects of changing the length of strings while plucking. (P.EN.03.31, P.EN.03.32, S.IP.03.11, S.RS.03.11)

Evaluating Student Understanding

Formative Assessment Examples

- Use student investigations and science journals to assess ability to describe sound and sound as energy. (P.EN.03.31, P.EN.03.32)
- Observe students during investigations on sound. Ask questions to probe student understanding while observing cooperative groups. (P.EN.03.31, P.EN.03.32)
- Use student investigations to assess their ability to ask questions based on observations. (P.EN.03.31, P.EN.03.32)

Summative Assessment Examples

- Students create a simple and fair investigation from one of the above activities. Check lab books for accuracy and understanding. (P.EN.03.31, P.EN.03.32)
- Create a concept map that shows the concepts of sound. (P.EN.03.31, P.EN.03.32)

Enrichment

- Choose questions for further investigation and research on sound.
- Challenge students to create a band from a variety of homemade instruments. A good example of how everyday things can be used for composition is the group, STOMP. Video performances of this group can be used to show their interesting way of using sound for performance. Students should be able to show how the objects they chose vibrate and create sound.
- Use a tuning fork and hold it on the surface of a pan of water.
- Fill glasses of the same size with different amounts of water and replicate the musical scale.
- Make plastic cups with plastic wrap rubber banded to the opening. Place salt, sugar, or sand on the drumhead. Place it near the speaker of a stereo. Watch the grains jump to the sound waves.
- Read texts about sound.
- Explore ways to amplify sound.
- Music and fractions are a natural tie-in. Students can explore quarter, half, and whole notes.
- Any performance of bands, orchestras, choirs, or using student made instruments in a composition.
- Create a "Sound Museum."
- Invite an audiologist to bring his/her equipment to share with the class.

Intervention

- Create a skit or game to demonstrate that vibrating objects cause sounds.
- Enlist the music teacher to reinforce concepts of pitch and vibration.
- Repeat experiences with stringed instruments and drums.

Examples, Observation, and Phenomena (Real World Context)

The properties of sound are experienced in everyday activities. Students hear natural and manufactured sounds through play, school, conversations, sports, and recreation. Natural sounds are sounds in nature and help scientists and naturalists identify species of animals. Animals also identify one another through different sounds they make. People and other animals communicate using sounds. Sounds are used as warning signals in nature and society. The use of alarms and sirens are life saving sounds.

Musicians use the properties of sound to create pieces of music that range from rock and roll to jazz and classical symphonies. The vibrations of different instruments are blended to create the desired notes and chords.

People that lose their sense of hearing rely on hearing aids to pick-up or sense the vibrations of sound to help them distinguish different sounds and words. Contributions of scientists such as Thomas Edison, Alexander Graham Bell, Guglielmo Marconi, and Ernest Chladni have used the properties of sound to design different tools and devices that aid in communication and hearing.

Literacy Integration

Reading

R.CM.03.01 connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.

R.CM.03.02 retell in sequence the story elements of a grade level narrative text and major idea(s) and relevant details of grade-level informational text.

Examples of trade books available for learning about sound:

- *Sounds All Around Let's Read and Find Out Series 1* by Pfeffer and Keller, 1998
- *Making Musical Things*, by Ann Wiseman and Ann Wiseman, 1979
- *Ty's One-man Band*, by Mildred Walter and Margot Tones, 1980
- *Rubber-Band Banjos and a Java Jive Bass* by Alex Sabbeth, 1997
- *Hear! Hear! The Science of Sound* by Barbara Taylor, 1991

Writing

W.GN.03.03 write an informational piece including a report that demonstrates the understanding of central ideas and supporting details using an effective organizational pattern (i.e. compare/contrast, cause/effect, problems/solutions) with a title, heading, subheading, and a table of contents.

W.GN.03.04 use the writing process to produce and present a research project; initiate research questions from content area text from a teacher-selected topic; and use a variety of resources to gather and organize information.

Speaking

S.DS.03.04 plan and deliver presentations using an effective informational organizational pattern (e.g. descriptive, problem/solution, cause/effect) supportive facts and details, reflecting a variety of resources, and vary the pace for effect.

IX.B.1.



TO: Trustees, Board of Education
FROM: Bonnie P. Riutta, Interim Superintendent of Schools
RE: Director of Finance Position
DATE: March 18, 2009

Attached is the recommendation for the posting to hire a Director of Finance. The rationale and function of the position is described in the memorandum from Maria Bolen. The posting of this position has been discussed by the Board Human Resources and Finance Committees.

Motion

Moved by:

Supported by:

To approve the posting of the Director of Finance position as presented.

Voice vote:

____ Ayes

____ Nays



TO: Bonnie Riutta, Interim Superintendent

FROM: Maria Bolen, Assistant Superintendent of Finance

RE: Director of Finance Position *mab*

DATE: March 4, 2009

Please find attached the posting for the Director of Finance Position. The hiring of my position has minimized the need for the full replacement of the Director of Accounting position. Now that the Assistant Superintendent's position has been filled, this staff position is still very much needed to meet the needs of the department. However, the position does not demand the same rate of pay or scope of responsibility as the former Director of Accounting position. The position will cover mid-level management functions as well as higher level accounting functions and will provide a much-needed contingency support for eliminating all overtime and substitutes within the department, which has been an issue with the BESP union.

The former Director of Accounting was performing tasks that spanned from a clerical level to an executive administration level. There is absolutely no cross-training of the existing finance staff and, therefore, no activity contingency plan for staff absences. The Director of Finance could effectively provide coverage during staff absences as well as enhance the efficiency of each of the finance staff by providing close counseling and support for on-the-job efficiencies. By making this position a higher function position, the department is posturing to evolve in the event that the operations responsibilities need to be absorbed by the Finance Department.

**Brighton Area Schools
Job Posting**

Position: **Director of Finance**

Reports to: **Assistant Superintendent of Finance**

Job Goal: **To provide the district with proper accountability of its financial resources.**

Qualifications:

1. Bachelors Degree – Major: Accounting
2. Knowledge of accounting and budget principles, fund accounting, computer applications and computerized accounting systems and principles of management and supervision
3. Experience in various accounting positions including general ledger, accounts payable, accounts receivable, payroll and benefits
4. Public school accounting experience preferred

Responsibilities:

1. Provide direct supervision of personnel assigned to accounts payable, benefits, payroll and other business office functions
2. Responsible for reporting to the taxing units, Livingston Educational Service Agency and the State of Michigan
3. Work directly with federal program directors and supervisors to maintain proper federal guidelines
4. Maintain the financial records of the district in compliance with Bulletin 1022
5. Review all bank reconciliations for timely preparation and accuracy
6. Work directly with the school district auditors
7. Monitor the purchasing card system and other online bill payments
8. Prepare monthly financial statements
9. Maintain the electronic purchase order system
10. Train building level staff on accounting software capabilities
11. Oversee purchasing function within the district
12. Review employee reimbursements
13. Perform any other duties as assigned by the Assistant Superintendent for Finance

Evaluation:

Performance will be evaluated on an annual basis by the Assistant Superintendent of Finance

Annual Salary: **\$63,358 - \$67,888**

Deadline: **Friday, March 20, 2009**

IX.D.1.



TO: Trustees, Board of Education

FROM: Bonnie Riutta, Interim Superintendent of Schools

RE: High School Research Team Report, Special Education

DATE: March 18, 2009

A committee of teachers, administrators and support staff was formed at the beginning of this school year to research best practice for the delivery of special education services. Marci Moloney, Director of Special Education, received a grant to support the work of this committee. After many months of research and discussion, they have prepared a recommendation for the 2009/2010 school year. The committee will present their findings and plan to the Board on March 23, 2009.

The Vision:

To Prepare ALL Students for Success in
General Education and on the MME

BHS Special Education Program Delivery Model

What a great opportunity
to affect positive change!

Committee Members

- BHS Special Education Teachers:
Jennifer Bouhana and Randy Brady
- BHS General Education Teachers: Joan Ancona, Corinne Funke, Joe Pawloski, and Ginny Weingate
- Counselor: Jennifer Sprys-Tellner
- Middle School Special Education Teachers:
Karen Krug, SMS and Melissa Scherdt, MMS
- BHS and LESA Administrators: Pat Meyer, Laura Surrey, Marci Moloney, and Lisa Santioni
- BEA: Barry Goode

Research Process

- Reviewed continuum of Special Education services
 - Reviewed data relative to student programming and progress
 - Read current research
 - Identified and prioritized points of concern
- Interviewed and visited comparable districts that made AYP with Special Education sub-group
- Created multi-year plan for implementation

Our current delivery model

- ▶ MME and AYP data shows our current model does not meet student needs.

We currently offer:

- ❖ Basic Categorical Blocks
(Emotionally Impaired, Mild and Severe Cognitively Impaired)
- ❖ Special Education Department Classes
- ❖ Team Taught Classes those Co-taught by both Special Education and General Education Teachers

The Big Picture begins with:

▶ Creating
Resource Support Classes

▶ Creating
TC Content Classes

(Teacher Consultant)

- Provides direct special education support by a student's own case coordinator grouped by grade level scheduled into the student's day
- Clearly defined structure and curriculum focusing on organizational skills, study and test taking strategies, basic remediation in reading, writing and math
- Supports student success in general education and proficiency on the MME
- Not designed as a study hall or homework time

Resource Support Classes

- Offered in core academic areas, such as English, Math, Science, and Social Studies offered on a drop-in basis as needed
- General Education classes will be heterogeneous allowing for appropriate modeling and rigor
- Provides support to a greater number of students/staff efficiency
- Special Education Teacher who is experienced and/or highly qualified in the specific content

TC Content Classes

Other Big Picture Features

- ▶ Culture Change:
All students are "Our Students"
- ▶ Clearly defined and administratively supported procedures, parameters and expectations for all teachers
- ▶ Ongoing training and support for both Special Education and General Education teachers
- ▶ General Education classes will support all students in meeting MMC requirements
- ▶ Case Coordinator assignments will be initiated in the Spring
- ▶ Evaluate and Restructure Para-pro assignments for efficiency

Integrated Basic Content Classes

- ❖ Reduce the number of students in basic programs by creation of specific guidelines for student placement
- ❖ Basic teachers will function as a cohesive team
- ❖ Goals are to prepare students to be proficient on the MME and to transition students to General Education courses and/or post secondary training
- ❖ May include students earning a Certificate of Completion/Transition rather than a diploma

Sample 9th Grade Schedules

RESOURCE SUPPORT

Biology
US History
English 9
Algebra Readiness II
Resource Support Class
Phys Ed/Elective

INTEGRATED BASIC

Basic Science
Basic Social Studies
Basic English
Basic Math/Pre-Algebra
Skills in Communication
Phys Ed/Elective

Year One Changes:

- Incoming Freshmen will be assigned to a specific case coordinator
- 9th grade Special Education students will be placed in General Education courses utilizing Resource Support Class as needed instead of tutorial
- TC Content Classes will provide support and act as a replacement for teams in Biology, Math, English 9, US History, and Chem/Physics Essentials
- Tutorials will be available for 10–12 graders meeting specific criteria
- Students requiring intense support will access basic content classes
- Evaluate and address the needs of the Special Education Program providing training and support

Year Two:

- Incoming 9th graders will be assigned a specific case coordinator, 10th graders "roll up"
- TC Content Classes will continue to provide support and act as a replacement for teams in World History and American Lit
- All Special Education students will be placed in General Education courses utilizing Resource Support Class as needed
- Evaluate and address the needs of the Special Education Program providing training and support

Year Three

- Incoming 9th graders will be assigned a specific case coordinator, 10th and 11th graders "roll up"
- TC Content Classes will provide support and replace all other teamed classes including Brit Lit and Civics/Economics
- Special Education students will continue being placed in General Education courses utilizing Resource Support Class as needed
- Evaluate and address the needs of the Special Education Program providing training and support

NEXT STEPS

- Create Drafts of the following:**

Structure and Curriculum of Integrated Basic and Resource Support Classes

Structure and Procedures for TC Content Classes

- Examine and restructure Para-pro support**
- Investigation of general education classes reinforced with more support**
- Consideration of accelerating implementation of Special Education delivery model**

IX.D.2.



TO: Trustees, Board of Education
FROM: Bonnie P. Riutta, Interim Superintendent of Schools
RE: Resolution to Dissolve Renaissance Alternative School
DATE: March 18, 2009

As you know the Superintendents of Livingston County have met and discussed the participation of the county schools in the Renaissance Alternative School program. After much discussion, it was determined that this program would be dissolved and that the students would return to their resident districts.

We are confident that through the services of our Adult and Alternative Education programs, Brighton students will be well served. Anne Hubscher and Anne Rennie have made contact with our students to plan for their enrollment in the Brighton Schools.

Attached is the Resolution to terminate the joint agreement.

Motion

Moved by:

Supported by:

To adopt the Resolution to dissolve Renaissance Alternative School as presented.

Voice vote:

_____ Ayes

_____ Nays

**ADDENDUM TO AGREEMENT FOR
COOPERATIVE PROGRAM FOR ALTERNATIVE EDUCATION
IN LIVINGSTON COUNTY – RENAISSANCE ALTERNATIVE SCHOOL**

This Addendum to Agreement for Cooperative Program for Alternative Education in Livingston County - Renaissance Alternative School (the "Addendum") is entered into this _____ day of _____, 2009, by and among the undersigned parties. With their respective signatures, the parties to this Addendum voluntarily bind themselves to the covenants contained herein, and the mutual consideration that establishes the basis for the Agreement for Cooperative Program for Alternative Education in Livingston County - Renaissance Alternative School (the "Original Agreement") is hereby acknowledged and incorporated into this Addendum.

WITNESSETH:

WHEREAS, the parties to this Addendum entered into the Original Agreement in 2006 to provide for the establishment and operation of the Renaissance Alternative School; and

WHEREAS, subsequently, in 2007, the parties entered into an Agreement to Extend Existing Agreement from July 1, 2007 through June 30, 2010 for Cooperative Program for Alternative Education in Livingston County - Renaissance Alternative School (the "Extension Agreement"); and

WHEREAS, the parties now desire to enter into this Addendum to modify the terms of the Original Agreement and the Extension Agreement to provide for the winding up of the alternative middle school program and alternative high school program (the "Program") operated pursuant to the Original Agreement and the Extension Agreement, as well as the termination of the Original Agreement and Extension Agreement, and to provide for additional issues related thereto; and

WHEREAS, except as otherwise provided herein, capitalized terms found in this Addendum shall have the meaning attributed to them in the Original Agreement and/or the Extension Agreement, unless the context clearly dictates otherwise. Further, except as modified or amended by this Addendum, the remaining terms and conditions of the Original Agreement and the Extension Agreement shall remain in full force and effect.

NOW, THEREFORE, the parties agree as follows:

1. Section II.B. ("General Expiration") of the Original Agreement is modified as follows:

This Agreement shall expire and terminate on June 30, 2009 (the "Termination Date"). As of the Termination Date, each Participant shall assume and maintain responsibility for supporting the educational needs of the respective pupils enrolled

in the Program, and LESA shall have no further responsibility for those pupils, except as otherwise provided herein.

2. Section II.C. ("Extension") of the Original Agreement is deleted.
3. The second paragraph of the Extension Agreement is modified as follows:

This document extends the current agreement from July 1, 2007 through June 30, 2009, the Termination Date.

4. The third paragraph of the Extension Agreement is hereby deleted.
5. Section IV.D. ("Program Facilities") of the Original Agreement is modified as follows:

LESA shall provide physical facilities (the "Program Facilities") it determines appropriate for the Program, and shall provide all utility and custodial services. Legal title and ownership of the Program Facilities shall be and remain with LESA.

6. Section IV.E. ("Disposal of Program Facilities") of the Original Agreement is deleted.
7. Section IV.G. ("Records") of the Original Agreement is hereby modified as follows:

LESA is responsible for maintaining records of pupil attendance, grades, progress, achievement and behavior as may be required by law and applicable policies (the "Student Records"). Consistent with applicable law, each Participant shall have complete access to all Student Records maintained by LESA for the pupils of that respective Participant. LESA shall provide Participants data necessary for compilation of state and federal reports, including special population data, as Participants may need. *LESA shall promptly forward all Student Records to the applicable respective Participant following the termination of this Agreement, and by no means later than July 31, 2009.*

8. The last paragraph of Subsection 4 of Section VI.C. ("Program Charge") of the Original Agreement is modified as follows:

The Program Charges shall be billed to each Participant by LESA on a quarterly basis and shall be paid to LESA by the respective Participants within 30 calendar days of the billing date. Each Participating District shall pay its outstanding Program Charges, including those charges invoiced by LESA to

the Participating Districts on or before July 31, 2009, but no later than August 31, 2009. The obligation of each Participating District to pay its outstanding Program Charges shall survive the termination of this Agreement.

9. Section X.C. ("Winding Up") of the Original Agreement is modified as follows:

Upon the expiration and termination of this Agreement and the Program, LESA shall proceed to wind up the affairs of the Program. LESA shall be solely responsible for all costs and expenses related to the winding up of the Program. The Participants shall have no financial responsibility for the costs and expenses related to the winding up of the Program. LESA shall have and retain title to all Program equipment, supplies and deferred revenue as of June 30, 2009, the Termination Date, and the Participants shall have no right or claim to the foregoing.

10. Section XI.I. ("Workforce Improvement Act") is added to the Original Agreement as follows:

Notwithstanding the termination of this Agreement on the Termination Date, LESA agrees to continue through August 31, 2009 the operation of the Workforce Improvement Act grant awarded by the Livingston County Michigan Works!.

IN WITNESS WHEREOF, the parties hereto have executed this Addendum to Agreement for Cooperative Program for Alternative Education in Livingston County - Renaissance Alternative School on the day and year stated below.

On Behalf of BRIGHTON AREA SCHOOLS

Dated: _____, 2009

By: _____

Name: _____

Title: _____

**On Behalf of FOWLerville COMMUNITY
SCHOOLS**

Dated: _____, 2009

By: _____
Name: _____
Title: _____

On Behalf of HOWELL PUBLIC SCHOOLS

Dated: _____, 2009

By: _____
Name: _____
Title: _____

**On Behalf of PINCKNEY COMMUNITY
SCHOOLS**

Dated: _____, 2009

By: _____
Name: _____
Title: _____

**On Behalf of LIVINGSTON EDUCATIONAL
SERVICE AGENCY**

Dated: _____, 2009

By: _____
Name: _____
Title: _____

IX.D.4.



TO: Trustees, Board of Education
FROM: Bonnie P. Riutta, Interim Superintendent of Schools
RE: Resolution, LESA Consortium for Copier Equipment
DATE: March 18, 2009

The Resolution to authorize the district's participation in the LESA consortium for the purchase of copy equipment is presented for your consideration. Participation in this consortium will provide more favorable rates for the county school districts.

It is recommended that the resolution be approved as presented.

Motion

Moved by:

Supported by:

To adopt the LESA Photocopier Consortium Agreement as presented.

Voice vote:

_____ Ayes

_____ Nays

LIVINGSTON EDUCATIONAL SERVICE AGENCY PHOTOCOPIER CONSORTIUM AGREEMENT

This Photocopier Consortium Agreement (the "Agreement" or this "Agreement") is made this ____ day of _____, 2009, by and between Livingston Educational Service Agency, a Michigan intermediate school district organized and operating under the provisions of the Revised School Code, MCLA 380.1, *et seq.*, as amended, with offices located at 1425 West Grand River Avenue, Howell, Michigan 48843-1916 (sometimes "Livingston ESA"); Brighton Area Schools, a Michigan general powers school district organized and operating under the provisions of the Revised School Code, MCLA 380.1, *et seq.*, as amended, with offices located at 125 South Church Street, Brighton, Michigan 48116-2403; Fowlerville Community Schools, a Michigan general powers school district organized and operating under the provisions of the Revised School Code, MCLA 380.1, *et seq.*, as amended, with offices located at 735 North Grand Avenue, Fowlerville, Michigan 48836; Hartland Consolidated Schools, a Michigan general powers school district organized and operating under the provisions of the Revised School Code, MCLA 380.1, *et seq.*, as amended, with offices located at 9525 Highland Road, Howell, Michigan 48843; Howell Public Schools, a Michigan general powers school district organized and operating under the provisions of the Revised School Code, MCLA 380.1, *et seq.*, as amended, with offices located at 411 North Highlander Way, Howell, Michigan 48843; Pinckney Community Schools, a Michigan general powers school district organized and operating under the provisions of the Revised School Code, MCLA 380.1, *et seq.*, as amended, with offices located at 2130 E. M-36, Pinckney, Michigan 48160 (individually, a "District" and collectively, the "Participants" or the "Districts") and which Participants collectively and cooperatively shall, for purposes of this Agreement, be referred to as the "Consortium".

PREMISES

WHEREAS, the Participants desire to work as a group to obtain a vendor that will provide all aspects of Photocopier Services, including without limitation, the installation maintenance and repair of photocopier machines (collectively, the “Photocopier Services”).

WHEREAS, the Participants desire that Livingston ESA assist them in forming a consortium to assist in the selection of, and entering into a contract with, a vendor for Photocopier Services.

WHEREAS, Livingston ESA is willing to enter into a contract with a vendor for Photocopier Services and permit the Participants to reimburse Livingston ESA for the specific Photocopier Services utilized by each Participant.

ARTICLE I

PHOTOCOPIER SERVICES

1.1 Photocopier Services. The purpose of this Agreement is to authorize Livingston ESA to coordinate a vendor selection process for Photocopier Services for and on behalf of each Participant and to enter into an agreement for Photocopier Services based upon the specific needs of each Participant (the “Photocopier Agreement”).

1.2 Fiscal Agent. Livingston ESA shall serve as the fiscal agent for the Consortium and shall have the authority to enter into, for and on behalf of the Consortium and the Districts, the Photocopier Agreement. The Consortium itself has no other authority to enter into contracts, to own property, or to employ personnel. Other than the Photocopier Agreement, Livingston ESA shall have no authority to enter into any other contracts on behalf of the Consortium or any Participant.

1.3 Installation, Maintenance and Repair, and Support. Livingston ESA shall provide general assistance concerning the Photocopier Services. However, each Participant shall

coordinate with the vendor, the installation, maintenance and repair, and support of the Photocopier Services being provided to that Participant.

1.4 Training. Each Participant shall coordinate with the vendor, all on-site training. The cost of the training shall be paid by Livingston ESA pursuant to Section 3.1, below, with the cost of the training being reimbursed by the Participants pursuant to Section 3.2, below.

1.5 Warranties. Livingston ESA shall assign to each Participant, all manufacturers and vendor warranties. Each Participant shall coordinate with the vendor any warranty work or other warranty claims. The cost of the warranty work or other warranty claims shall be paid by Livingston ESA pursuant to Section 3.1, below, with the cost of the warranty work, if any, being reimbursed by the Participants pursuant to Section 3.2, below.

1.6 Participation. Each Participant shall advise Livingston ESA, in writing, on the specific Photocopier Services that it wants provided under the Photocopier Agreement. Livingston ESA shall establish the timelines for participation and the Photocopier Agreement and conform those timelines, in writing, with each Participant. Nothing contained in this Agreement will obligate a Participant to obtain Photocopier Services pursuant to the Photocopier Agreement.

ARTICLE II

TERM OF AGREEMENT

2.1 Term. The term of the Agreement shall be for four (4) years, commencing July 1, 2009 and terminating on June 30, 2013.

2.2 Renewal. This Agreement shall automatically renew after the initial four (4) year term, from year-to-year until such time as the Participants determine to dissolve the Consortium as provided in Section 2.4 of this Agreement.

2.3 Withdrawal. After the initial four (4) year term, any Participant may withdraw from the Consortium. Upon withdrawal, the Participant relinquishes any rights in the Photocopier Services and is not entitled to any reimbursement for its original or subsequent investment in the photocopying services or the Consortium.

2.4 Dissolution. Upon majority vote of the Participants, after the initial four (4) year term, the Consortium may be dissolved. Upon dissolution and after payment of all outstanding obligations, the assets of the Consortium shall be distributed as determined by a majority vote of the then Participants.

ARTICLE III

CONSORTIUM COSTS

3.1 Costs. Livingston ESA, in an effort to foster collaboration between and among the Participants, agrees to enter into the Photocopier Agreement for and on behalf of the Consortium. Livingston ESA shall pay, when due, all amounts owing under the Photocopier Agreement. Each Participant agrees to reimburse Livingston ESA for the Photocopier Services that have been provided to that Participant, which reimbursement is more fully described in Section 3.2, below. A Participant may, in its discretion, elect to receive invoices directly from the vendor and make payment of these invoices to the vendor. If a Participant elects to receive and pay invoices in this manner, the vendor shall provide copies of the invoices and proof of payment of these invoices to Livingston ESA upon request.

3.2 Participants' Share of Costs. Each Participant shall be responsible for the cost of the Photocopier Services that they have been provided. A Participant shall reimburse Livingston ESA within thirty (30) days from the date of receipt of an invoice for the Participant's cost of Photocopier Services.

3.3 **Other Costs.** The process identified in Section 3.2, above, shall not be utilized if a Participant requests from the vendor, any extra or other services that are not part of the Photocopier Agreement. The Participant shall be responsible to pay these costs directly to the vendor.

ARTICLE IV

CONSORTIUM BYLAWS

4.1 **Mutual Support.** Each Participant agrees to enter into this Agreement with the intent of mutual support and to preserve resources in the area of Photocopier Services.

4.2 **Annual Meetings.** During the term of this Agreement, the Participants agree to meet once a year in April to review and make suggested revisions, changes and/or adjustments to the Agreement. Any revision, change and/or adjustment to this Agreement shall require unanimous written consent of the Participants.

4.3 **Meetings by Participant.** Any Participant may call a meeting of the Consortium with thirty (30) days' written notice to all parties. Livingston ESA may act as a mediator in any disputes if agreed to in writing by the parties. If Livingston ESA is unacceptable to any party, then any dispute may, if agreed to by the parties, be submitted to the American Arbitration Association ("AAA") for hearing in accordance with the Commercial Arbitration Rules and the procedures of the AAA. All costs shall be paid by the Participants as provided by the AAA.

ARTICLE V

LIABILITY

5.1 **No Joint Liability.** The Participants, including Livingston ESA, are not jointly liable for any act, failure to act or omission committed by any one of them, including without limitation, the failure to pay. Any cause of action, in any form, brought based upon the act, failure to act or omission of any Participant may be brought only against the Participant that

failed to act or committed the omission. Each Participant is a separate legal entity with all rights provided by law and this Agreement.

5.2 Participant's Failure to Reimburse. If a District fails to reimburse Livingston ESA as required in Article III, above, Livingston ESA may pursue any or all legal and equitable remedies.

ARTICLE VI

AMENDMENT AND WAIVER

6.1 Entire Agreement. This Agreement contains all of the terms of the Agreement among the Participants with respect to the Consortium and the Photocopier Services and supersedes all prior and contemporaneous agreements and understandings, oral or written, with respect to the Consortium and the Photocopier Services.

6.2 Amendment. Any amendment of this Agreement shall be in writing and executed by all the Participants.

6.3 Waiver. Failure to enforce or insist upon compliance with any of the terms or provisions of this Agreement shall not constitute a general waiver or relinquishment of any term or provision of this Agreement.

ARTICLE VII

APPLICABLE LAW

7.1 Meaning of Applicable Law. The term "applicable law" as used in this Agreement means:

(a) Generally, all federal, state, and municipal laws and regulations, and judicial or administrative determinations, applicable to this Agreement, the Consortium, the photocopies services, and the funding, administration, and operation thereof.

(b) In particular, but not limited to, the Revised School Code (1976 PA 451; MCLA 380.1, *et seq.*; MSA 15.4001, *et seq.*

ARTICLE VIII

MISCELLANEOUS

8.1 Notices. All notices, bills, or other communications required or permitted under this Agreement shall be in writing and shall be deemed to be duly given on the day of service if served personally or by confirmed facsimile or e-mail delivery upon the Participant to whom notice is given at its address as listed above, or the address subsequently provided to all other Participants, or on the day after delivery to the United States Postal Service for regular mail service, to the attention of the Participant's Superintendent of Schools.

8.2 Non-Discrimination. All Participants shall comply with all federal and Michigan laws and regulations prohibiting discrimination and, in accordance therewith, no person, on the basis of race, color, religion, national origin and ancestry, age, sex, marital status, handicap, or political affiliation or belief, shall be discriminated against, excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in any program or activity for which it is responsible or for which it receives financial assistance from the U.S. Department of Education or Michigan Department of Education.

8.3 Successors and Assigns. The terms and conditions of this Agreement shall be binding upon the successors or assigns of any of the Participants. No Participant may assign or transfer any of its rights under this Agreement in whole or in part without prior written consent of all other Participants.

8.4 Headings and Titles. The headings and titles in this Agreement are for convenience only and shall not be considered a part of or used in the interpretation of this Agreement.

8.5 Severability. The unenforceability of any provision of this Agreement shall not affect the enforceability of the remaining provisions of this Agreement, and to this end, the provisions hereof are severable.

8.6 Governing Law. The Agreement shall be governed by and enforced in accordance with the laws of the State of Michigan.

8.7 Counterparts. This Agreement shall be executed in counterparts separately by each Participant, each of which counterparts shall be deemed an original, and all of which shall constitute one and the same instrument.

8.8. Effectiveness. This Agreement shall come into full force and effect at such time as this Agreement has been executed by all Participants, and such executed Agreement or counterparts are on file with Livingston ESA as fiscal agent of the Consortium.

8.9 No Third Party Beneficiaries. This Agreement is enforceable only by the Participants. No other person may enforce any of the terms contained in this Agreement, nor is the Agreement intended to confer third party beneficiary status on any third party.

EACH SIGNER TO THIS AGREEMENT PERSONALLY REPRESENTS AND WARRANTS THAT THIS AGREEMENT HAS BEEN APPROVED BY THE GOVERNING BODY OF THE PARTICIPANT ON WHOSE BEHALF THIS AGREEMENT IS SIGNED AND THAT HE/SHE HAS BEEN AUTHORIZED TO SIGN THIS AGREEMENT.

[Signatures following on next pages]

AUTHORIZED SIGNATURE

**BRIGHTON AREA SCHOOLS,
a Michigan general powers school district**

Dated: _____

By: _____

Its: _____

Address: 125 South Church Street
Brighton, Michigan 48116-2403
Attention: Superintendent

Telephone: (810) 299-4000

Facsimile: (810) 299-4092

Email: _____

**FOWLerville COMMUNITY SCHOOLS,
a Michigan general powers school district**

Dated: _____

By: _____

Its: _____

Address: 735 North Grand Avenue
Fowlerville, Michigan 48836
Attention: Superintendent

Telephone: (517) 223-6055

Facsimile: (517) 223-6022

Email: _____

**HARTLAND CONSOLIDATED SCHOOLS,
a Michigan general powers school district**

Dated: _____

By: _____

Its: _____

Address: 9525 E. Highland Road
Howell, Michigan 48843
Attention: Superintendent

Telephone: (810) 626-2100

Facsimile: (810) 526-2101

Email: _____

**HOWELL PUBLIC SCHOOLS,
a Michigan general powers school district**

Dated: _____

By: _____

Its: _____

Address: 411 North Highlander Way
Howell, Michigan 48843
Attention: Superintendent

Telephone: (517) 548-6200

Facsimile: (517) 548-6229

Email: _____

**PINCKNEY COMMUNITY SCHOOLS,
a Michigan general powers school district**

Dated: _____

By: _____

Its: _____

Address: 2130 East M-36
Pinckney, Michigan 48160
Attention: Superintendent

Telephone: (810) 225-3900

Facsimile: (810) 225-3905

Email: _____

**LIVINGSTON EDUCATIONAL SERVICES
AGENCY, a Michigan intermediate school
District**

Dated: _____

By: _____

Its: _____

Address: 1425 W. Grand River Avenue
Howell, Michigan 48843-1916
Attention: Superintendent

Telephone: (517) 456-5550

Facsimile: (517) 456-7047

Email: _____

IX.D.5.



TO: Trustees, Board of Education

FROM: Bonnie P. Riutta, Interim Superintendent of Schools

RE: Acceptance of Donation, Furniture

DATE: March 18, 2009

As per Policy 7230 - Gifts, Grants and Bequests, the Board of Education is required to accept donations that exceed \$1,000 in value. The Livingston Educational Service Agency donated furniture for use in the business office. In addition to the furniture, LESA employees Chuck LeFebvre and Brian Braden assembled the furniture without disruption to the normal business office work routine.

On behalf of the district, I would like to extend my appreciation to LESA for the generous donation of furniture that is being put to good use by our staff.

Motion

Moved by:

Supported by:

To accept the donation of office furniture from LESA with appreciation and special thanks to LESA employees Chuck LeFebvre and Brian Braden for delivering and assembling the furniture.

Voice vote:

___ Ayes

___ Nays



TO: Mike Hubert, Assistant Superintendent of Finance
Livingston Educational Service Agency

FROM: Bonnie Riutta, Interim Superintendent
Brighton Area Schools

RE: Furniture Donation

DATE: March 6, 2009

Thank you so much for the Livingston Educational Service Agency donation of furniture for the business office of Brighton Area Schools. The professional presence and appearance of the space has improved significantly because of the furniture. Your donation is greatly appreciated by all.

This memo is also to commend the Livingston Educational Employees, Chuck LeFebvre and Brian Braden on their work assembling the furniture. They were very knowledgeable about the assembly process and patient with our staff in setting the furniture up. They worked diligently with the no disruptions to our workflow.

Again, thanks for the furniture and all other assistance the Livingston Educational Service Agency has provided to Brighton Area Schools.

Brighton Area Schools
Bylaws & Policies

7230 - GIFTS, GRANTS, AND BEQUESTS

The Board of Education is duly appreciative of public interest in and good will toward the schools manifested through gifts, grants, and bequests. The Board reserves the right, however, to specify the manner in which gifts are made; to define the type of gift, grant, or bequest which it considers appropriate; and to reject those which it deems inappropriate or unsuitable. If accepted, the Board will attempt to carry out the wishes of the donor.

All gifts, grants, or bequests having a value of more than \$ 1,000 shall be accepted by the Board. The Superintendent may accept for the Board gifts of lesser value.

Gifts, grants, and bequests shall become the property of the Board and will be subject to use by the District as determined by the policies and administrative guidelines applying to all properties, equipment, materials, and funds owned by the Board.

Any equipment purchased by a parent organization for use in the school or at a District-related event shall be submitted to the Board, prior to purchase, so it can determine if the District would incur any liability by its use.

The Board reserves the right to not accept such liability and thus deny the use of the equipment by students or District employees.

Board Curriculum Sub-Committee
Tuesday, March 17, 2009; 7:15 p.m.
Special Education Office, BECC

MINUTES

Call to Order

Greg Rassel called the Board Curriculum Sub-Committee Meeting to order at 7:15 p.m.

Roll Call

Members In Attendance: Jay Krause, Beth Minert, Greg Rassel and Baiba Jensen. Guests: Liz Larwa and Kris Valade

Approval of Minutes

Minutes were approved as presented.

Call to Public

Lynette Daig shared concerns about inconsistencies within departments at the high school.

New Business

- **K-5 Writing Curriculum Proposal** – Kris Valade, the elementary literacy coach, presented to the curriculum sub-committee. Since 2005, elementary teachers have been using Lucy Calkins materials to teach Writers Workshop. A lot of training has occurred and materials were provided through our Title II grant. This year an alignment was done for the materials and teachers created writing rubrics. Elementary teachers were also surveyed about their use of the program and their results. There was an overwhelmingly positive response regarding student achievement in writing. MEAP scores also show an upward trend. Lots of teacher leadership has also been evident at recent professional development days as well. The pacing of the writing materials and the rubrics were shared at Curriculum Council and they are recommending approval of this program and delivery model. The Board sub committee members approved moving the writing curriculum forward to the full Board.
- **K-5 Science Curriculum Proposal** – Liz Larwa, 4th grade teacher at Spencer, presented the proposed Science curriculum to the sub committee. Liz was asked to provide leadership for this initiative as she also serves on the State committee that created the new standards. She shared background about the changes in science and the new clarification document that has been written to support teachers. Also discussed was a transition plan for teaching science since a lot of content has been moved to other grade levels. Teacher representatives from each building and grade level helped align materials including use of some middle school texts. Gaps for the curriculum will be supported with trade books purchased through the Curriculum Office. The original adoption was in 2001, so many of the materials are still current. Curriculum Council approved this science proposal and the Board Curriculum sub-committee approved moving this curriculum forward.
- **K-5 Social Studies Curriculum Proposal** - Baiba Jensen shared the new social studies alignment. Teacher representatives worked on this alignment and current materials were placed into the units. The Michigan Citizenship Curriculum,

developed in collaboration with 5 large ISD's including Oakland and Genesee counties, was used as the prototype. This curriculum is found on line and will be continually updated. Many lessons especially in the lower grades are based on trade books. The Curriculum Office is working with our media specialists to fill in gaps if a building does not have a trade book to support the units. Curriculum Council approved is proposal. The group also recommended putting a curriculum adoption line item into next year's budget to fund much needed materials for grades 3-5. Curriculum materials were last purchased in 1996 and are outdated. Middle and high school materials were purchased last year.

- **Ongoing Textbook Budget Discussion** - The need for an on going textbook adoption line item in the district budget was discussed. It is difficult to replace curriculum materials without a planned budget. At one time this was available to support the curriculum adoption cycle. Now that we have responded to State mandated curriculum, there is a need to restart the curriculum cycle and have funds to support those recommendations for purchase in the next year's budget. The committee was supportive of the idea and it was discussed that this be talked about in the finance committee at the end of the month as well.

Meeting was adjourned at 8:50 p.m.