

# Board of Education Regular Meeting

Monday, June 17, 2013 7:00 PM

PPMS Library, 1 Route 164, Preston, CT 06365

I. Call to Order	<b>Speaker (s)</b> : Jan Clancy: Board Chair
II. Pledge of Allegiance	<b>Speaker (s)</b> : Jan Clancy: Board Chair
III. Approval of Minutes	<b>Speaker (s)</b> : Jan Clancy: Board Chair
IV. Public Comment	<b>Speaker (s)</b> : Jan Clancy: Board Chair
V. BOE Committee and Other Reports	<b>Speaker (s)</b> : Jan Clancy: Board Chair
VI. Principals' Reports	<b>Speaker (s)</b> : Jan Clancy: Board Chair
VII. Superintendent Reports, Recommendations, and Goals Update	<b>Speaker (s)</b> : Jan Clancy: Board Chair
VIII. BOE Expenditure/Projection Report	<b>Speaker (s)</b> : Jan Clancy: Board Chair
IX. Cafeteria Report	<b>Speaker (s)</b> : Jan Clancy: Board Chair
X. New Business	<b>Speaker (s)</b> : Jan Clancy: Board Chair
X.A. Votes Required	<b>Speaker (s)</b> : Jan Clancy: Board Chair
X.B. Discussion	<b>Speaker (s)</b> : Jan Clancy: Chair
XI. Old Business	<b>Speaker (s)</b> : Jan Clancy: Chair
XI.A. Votes Required	<b>Speaker (s)</b> : Jan Clancy: Chair
XI.B. Discussion	<b>Speaker (s)</b> : Jan Clancy: Chair
XII. Information	<b>Speaker (s)</b> : Jan Clancy: Chair
XIII. Executive Session	<b>Speaker (s)</b> : Dr. Welch: Superintendent
XIV. Date and Time of Next Meeting	<b>Speaker (s)</b> : Jan Clancy: Chair
XV. Adjournment	<b>Speaker (s)</b> : Jan Clancy: Chair

**Board of Education Regular Meeting**  
Preston Public Schools  
May13, 2013

**1. Call to Order**

The meeting was called to order at 7PM by Jan Clancy, Chair.

Members present:

Corky Raymond	Deborah Burke-Grabarek
Pauline Andruskiewicz	Dan Harris
Jan Clancy	

Members absent:

Sandra Allyn Gauthier  
John Moulson

Also present: Dr. John Welch, Principals Ivy Davis-Tomczuk and Ray Bernier, Bob Sirpenski Business Manager, Emil Lavaseur, Tech. Coordinator and Pat Hibbard, Bus Coordinator, and Mike House; Supervisor of Buildings and Grounds.

Public present: Lisa Harris, Pearl Potter, Ellen Claudio Bus Driver and Kevin Mercik CSEA Rep. and Joan Racicot.

**2. Pledge of Allegiance**

**3. Approval of the Minutes**

**Motion #1**

Move to approve the minutes of the Regular BOE meeting of April 8, 2013.

Corky Raymond/Pauline Andruskiewicz

Motion approved. Dan Harris abstained.

**4. Public Comment**

J. Eccleston addressed the Board regarding a notice she received for parking at the Preston Plains School parking lot on a Saturday. The notice stated that she must move her car or it would be towed. She asked how long this has been a practice of the Board.

Dr. Welch: It has been in practice since the Sandy Hook tragedy. The Board reserves the right to regulate parking at school parking lots at night and on weekends.

Chair Jan Clancy: It is because of our concern for the security and safety of the school and the children.

**5. Committee Reports**

No meetings held to date.

The Community Relations Sub Committee will meet on May 23, 2013.

**Motion #2**

Move to take the agenda out of order to place 10.1 on the floor.

Jan Clancy/Deborah Burke Grabarek

Motion Approved.

## **10.1 Votes Required**

CSEA Grievance was filed by Kevin Mercik, CSEA Rep. on behalf of bus driver Ellen Claudio. Ms. Claudio is grieving, to the Board of Education, a three (3) day suspension she received from Bus Coordinator Pat Hibbard due to tardiness. CSEA representative Kevin Mercik claims, "the discipline was not for just cause and as a remedy the Union seeks that Ms. Claudio be made whole in everyway including removal of discipline and full back pay."

### **Motion #3**

Move to Executive Session, at 7:18 PM, for discussion of a Personnel matter, inviting Dr. Welch and Pat Hibbard.

Pauline Andruskiewicz/Jan Clancy

Motion approved.

Executive Session ended at 8:15 PM. Ray Bernier made the announcement to that effect on the public address system at 8:15 PM.

### **Motion #4**

Move to deny the grievance filed.

Jan Clancy/Deborah Burke-Grabarek

Motion approved.

Chair Jan Clancy spoke: After a thorough review the Board upholds the grievance and further recommends that the employee, a CSEA representative, the Bus Coordinator and the Superintendent meet to discuss job expectations.

## **6. Principals' Reports**

### **Preston Plains upcoming dates:**

May 17, 2013 Awareness Day- Workshop, presented by NFA, on cyber bullying and other workshops will take place from 12-3 PM

June 7, 2013 8<sup>th</sup> grade Dinner dance 5:30-10 PM

June 14, 2013 Field Day at Ocean Beach

June 20, 2013 Recognition and Achievement Day 4 pm

### **PVMS upcoming:**

Further discussion of future reading program

Discussion of School Family Pact

American Ambulance Presentation

May 23, 2013 Spring Concert at PVMS 7 PM

May 31, 2013 Ann-ETTA Read In Day, PTO Event

June 4, 2013 Field Day at Strawberry Park

June 21, 2013 Last day of school

## **7. Superintendent Reports Recommendations & Goals Update**

1. Summer School program will run from July 1-August 1. The days and hours will be Mon.-Thurs. from 9 AM-12 PM.
2. Summer Capital Projects- Dr. Welch reported that an audit of the grades 3-5

- playscape showed deficiencies in the wooden playscape that must be corrected.
3. Dr. Welch reports that in order to be eligible for state reimbursement all Security Measures must be bonded. Various repairs to the schools will be paid for out of budget. Dr. Welch and Finance Manager Bob Sirpenski will attend the May 14, 2013 BOF meeting.
  4. Preston Schools Spring Concert will be held on May 23, 2013 at 7 PM. Next year's figures project 100 students will be involved in instrumental music.
  5. CSEA negotiations are upcoming any BOE members interested in being on the negotiating committee.

#### **8. BOE Expenditure/Projection Report**

1. Finance Manager Bob Sirpenski reports that the estimated year end budget surplus, excluding Special Education lines, will be approximately \$165,000.
2. June BOE meeting will require some line item transfers.

**Cafeteria Report** Finance Manager Bob Sirpenski reports that Cafeteria total income, net income and Participation numbers are down.

#### **10. New Business**

None.

#### **10.1 Cont. Votes Required**

1. See earlier 10.1 CSEA Grievance vote
2. Expenditure Approval needed for four purchase orders.

#### **Motion #5**

Move to authorize payment of the four (4) purchase orders presented: PO 130455, PO 130480, PO 130479 and PO TBD XDF.

Pauline Andruskiewicz/Jan Clancy

Motion approved.

#### **10.2 Discussion**

Common Core State Standards discussion will be deferred until next month.

#### **11. Votes Required**

#### **Motion #6**

Motion to accept Policy 4118.6 Policy on Social Networking.

Jan Clancy/Corky Raymond

Motion approved.

#### **Motion #7**

Motion to approve Policy 3542.2.

Corky Raymond/Jan Clancy

Motion approved.

#### **Motion #8**

**Motion to adjourn the BOE meeting at 9:15 PM.  
Corky Raymond/Pauline Andruskiewicz  
Motion approved.**

**Respectfully submitted,  
*Deborah Burke-Grabarek***

**PRESTON CAFETERIA ACCOUNT**  
**Profit & Loss Statement**  
**July 1, 2012 - May 2013**

	2012-13	2011-12	Change	% Change
<b>Income</b>				
50 State Reimbursements	\$41,294	\$40,334	\$ 960	2.4%
51 School Meal Receipts	\$63,356	\$68,513	\$ (5,157)	-7.5%
52 Miscellaneous Revenue	\$2,945	\$456	\$ 2,488	545.1%
53 BOE Subsidy	\$40,000	\$50,000	\$ (10,000)	
54 Donated Commodities	\$0	\$0	\$ -	
55 Bank Transfers	\$0	\$0	\$ -	
			\$ -	
<b>Total Income</b>	<b>\$147,595</b>	<b>\$159,304</b>	<b>\$ (11,709)</b>	<b>-7.4%</b>
<b>Expenses</b>				
112 Cafeteria Workers	\$50,711	\$49,379	\$ 1,332	2.7%
113 Cafe Subs/Lunch Aides	\$1,748	\$3,017	\$ (1,270)	-42.1%
212 Health Insurance	\$0	\$0	\$ -	
220 Social Security	\$4,013	\$4,436	\$ (423)	-9.5%
222 SUTA	\$0	\$0	\$ -	
291 Annuity Payments	\$0	\$0	\$ -	
330 Payroll/Professional Fees	\$9,000	\$5,000	\$ 4,000	
580 Travel & Meetings	\$0	\$0	\$ -	
630 Food Supplies	\$61,250	\$76,312	\$ (15,062)	-19.7%
690 Other Supplies	\$5,343	\$6,890	\$ (1,547)	-22.5%
730 Equipment	\$0	\$0	\$ -	
			\$ -	
<b>Total Expenses</b>	<b>\$ 132,065</b>	<b>\$ 145,034</b>	<b>\$ (12,969)</b>	<b>-8.9%</b>
<b>Net Income</b>	<b>\$ 15,530</b>	<b>\$ 14,270</b>	<b>\$ 1,260</b>	<b>8.8%</b>
<b>Meals</b>				
<b>Lunch</b>				
Paid	18,697	24,003	(5,306)	-22.1%
Free	6,399	7,315	(916)	-12.5%
Reduced	2,062	1,404	658	46.9%
<b>Total Lunches</b>	<b>27,158</b>	<b>32,722</b>	<b>(5,564)</b>	<b>-17.0%</b>
<b>Breakfast</b>				
Paid	811	1,308	(497)	-38.0%
Free	1,318	1,551	(233)	-15.0%
Reduced	176	159	17	10.7%
<b>Total Breakfast</b>	<b>2,305</b>	<b>3,018</b>	<b>(713)</b>	<b>-23.6%</b>
Total School Revenue per meal	\$2.15	\$1.92	0	12.2%
Total School Revenue/Day	\$372.68	\$398.33	(\$25.65)	-6.4%
School Days	170	172	(2)	-1.2%
Lunches Served per day	160	190	(30)	-15.8%
Breakfast Served per day	14	18	(4)	-22.2%

Quote#	QTE007285
Date	5/14/2013
Page	1

Total > 19,821.57  
 7,000.00 (k)  
 12,821.57

QUOTE

QUOTE GOOD FOR  
 60 DAYS

Bill To:

Ship To:

J P LARUE, INC  
 PO BOX 209  
 LITTLE COMPTON RI 02837

PRESTON VETERANS MEM SCH  
 325 Shetucket Tpke  
 PRESTON CT 06365

Purchase Order No.	Customer ID	Salesperson ID	Shipping Method	Payment Terms	Req. Ship Date	Master No.
	J.P. LARUE, INC		BEST WAY	NET 30	0/0/000	22,382
Quantity	Item Number	Description	Unit	Discount	Unit Price	Ext. Price
1.00	I21000	PROLOG INSTALL INSTRUCTIONS BIGTOYS, LAM	Each	\$0.0000	\$0.0000	\$0.00
1.00	I515	INSTALL INSTRUCTIONS S1-8	Each	\$0.0000	\$0.0000	\$0.00
20.00	2021	(815511) WOOD SCREW #10 X 3" BUGLE HD SQ D	Each	\$0.00	\$0.98	\$19.60
24.00	G030R	(G030) DO-NUT BASE 10MM - RED	Each	\$0.00	\$0.67	\$16.08
24.00	G032R	(G032) DO-NUT CAP 10MM - RED	Each	\$0.00	\$0.37	\$8.88
16.00	G030DG	(G030) DO-NUT BASE 10MM - DARK GREEN	Each	\$0.00	\$0.67	\$10.72
16.00	G032DG	(G032) DO-NUT CAP 10MM - DARK GREEN	Each	\$0.00	\$0.37	\$5.92
20.00	H493B	(804353) NUT, HEX 3/8"-16 - 2 WAY LOCKNUT, NC	Each	\$0.00	\$0.08	\$1.60
20.00	8554	(801008) BOLT HEX 3/8" X 2-1/4" NC GRD 5	Each	\$0.00	\$0.32	\$6.40
20.00	1199SP	(1199SP)SWING PENDULUM	Each	\$0.00	\$11.00	\$220.00
20.00	8319	(8319) SWING HANGER AXLE SLEEVE STAINLESS	Each	\$0.00	\$29.00	\$580.00
4.00	OTHER	BTMW WEAR MAT (44" X48")	Each	\$0.00	\$173.00	\$692.00
5.00	W796	(W796) HOLE PLUG, BROWN	Each	\$0.00	\$0.85	\$4.25
3.00	G005G	(G005G) HOLE PLUG GRAY EAGLE	Each	\$0.00	\$0.59	\$1.77
1.00	H400D	(H400D) LABEL PACKAGE 5-12 YEARS	Each	\$0.00	\$17.00	\$17.00
1.00	Z01-007DG	COLUMN, 8'-0", LAM - DARK GREEN	Each	\$0.00	\$253.00	\$253.00
2.00	Z01-009DG	COLUMN, 10'-0", LAM - DARK GREEN	Each	\$0.00	\$313.00	\$626.00
1.00	Z01-047	COLUMN, 12'-0" ROOF, LAM	Each	\$0.00	\$345.00	\$345.00
10.00	G000	(G000) EAGLE FASTENER	Each	\$0.00	\$5.25	\$52.50
3.00	12-001	PLATFORM/COLUMN CONNECTOR	Each	\$0.00	\$6.22	\$18.66
1.00	1551	(801015) BOLT HEX 3/8"-16 X 4" GRD 2 NC PLTD	Each	\$0.00	\$0.83	\$0.83
1.00	8555	(801008) BOLT HEX 3/8"-16 X 2- 1/4" GRD 2 NC PLT	Each	\$0.00	\$0.32	\$0.32
2.00	G030DG	(G030) DO-NUT BASE 10MM - DARK GREEN	Each	\$0.00	\$0.67	\$1.34
2.00	G032DG	(G032) DO-NUT CAP 10MM - DARK GREEN	Each	\$0.00	\$0.37	\$0.74
6.00	G034DG	(G034) DO-NUT BASE 12MM - DARK GREEN	Each	\$0.00	\$0.74	\$4.44
6.00	G036DG	(G036) DO-NUT CAP 12MM - DARK GREEN	Each	\$0.00	\$0.44	\$2.64
1.00	I204-001	INSTALL INSTRUCTIONS CLUBHOUSE ROOF 58",	Each	\$0.0000	\$0.0000	\$0.00
1.00	Z600	(Z600) COLUMN END FITTING - WOOD	EACH	\$0.0000	\$7.5000	\$7.50
4.00	H521	(800746) LAG SCREW 5/16" X 4"SS -FOR ROOF BR	Each	\$0.00	\$1.11	\$4.44
4.00	1864	(817406) WASHER, 5/16" FLAT SS (.328 ID X .562 O	EACH	\$0.0000	\$0.1500	\$0.60
1.00	I05-008	INSTALL INSTRUCTIONS NARROW ENCLOSURE	Each	\$0.0000	\$0.0000	\$0.00
1.00	D700NS	(D700) CONNECTOR NARROW ENCLOSURE - NIG	Each	\$0.00	\$19.00	\$19.00
4.00	G045	(801225) BOLT TAP 1/2"-13 X 2-1/2" NC PLTD	Each	\$0.00	\$0.88	\$3.52
1.00	I11-023	INSTALL INSTRUCTIONS ACCESS HANDRAIL LEF	Each	\$0.0000	\$0.0000	\$0.00
2.00	H570A	(817412) WASHER 1/2" SAE - PLTD	Each	\$0.00	\$0.34	\$0.68

Quote	QTE007285
Date	5/14/2013
Page	2

QUOTE

**QUOTE GOOD FOR  
60 DAYS**

Bill To:

J P LARUE, INC  
PO BOX 209  
LITTLE COMPTON RI 02837

Ship To:

PRESTON VETERANS MEM SCH  
325 Shetucket Tpke  
PRESTON CT 06365

Purchase Order No.	Customer ID	Salesperson ID	Shipping Method	Payment Terms	Req Ship Date	Master No
	J.P. LARUE, INC		BEST WAY	NET 30	0/0/0000	22,382
Quantity	Item Number	Description	UOM	Discount	Unit Price	Ext Price
2.00	0309	(801211) BOLT TAP 1/2"-13 X 3" NC PLTD	Each	\$0.00	\$0.64	\$1.28

PO AND REMITTANCE IS TO BE MADE TO BIGTOYS  
IF TAX EXEMPT PLEASE PROVIDE DOCUMENTATION WITH PO

Subtotal	\$2,926.71
Misc	\$0.00
Tax	\$206.55
Freight	\$326.00
Trade Discount	\$0.00
Total	\$3,459.26

PO Box 222  
 Marathon, NY 13803  
 T: 607-849-6040 F: 607-849-4545  
 patrickvotra@frontier.com

Date: 5/29/2013  
 Proposal #: 1751

Bill To:  
 Preston Veteran's Memorial School  
 325 Shetucket Turnpike  
 Preston, CT 06365

Ship To:  
 Preston Veteran's Memorial School  
 325 Shetucket Turnpike  
 Preston, CT 06365

Project: BigToys Repairs

Sales Rep: JL

Description/Terms/Conditions	Total:
Installation of repair parts -As per sales quote # QTE007285 from BigToys	2,195.00
Repair parts provided by others under separate contract.	
<p>**All equipment installation is in compliance with manufacturer's specifications.                      **Price assumes no overhead (13'6" or lower) or underground (within 3'6" of surface) obstacles.                      **Customer responsible for all site work prior to installation, unless otherwise stated above.                      **Customer responsible for removal of any existing equipment/obstacles prior to installation, unless otherwise stated above.                      **Nosurfacing materials can be installed prior to the equipment dig and installation process, unless otherwise stated above.                      **The site must be a well drained area, level as possible, with no more than a 1" in 10' slope or change in elevation, including all safety zones.</p>	
<p>This proposal is quoted at a non prevailing wage rate and is not valid for prevailing wage projects.</p>	
<p>To accept this proposal, please send signed contract to P &amp; P Installations with 50% deposit and purchase order for the remaining balance.</p>	
<p>Customer will be invoiced upon completion of the job. Payment in full is due within 30 days from completion of project, unless specific terms are stated above. A 1.5 % monthly finance charge will be assessed on any past due balances.</p>	
<p>Please verify correct billing information and site address to avoid delays in scheduling. Thank you.</p>	

**Total: \$2,195.00**

Your signature constitutes a valid order request and includes acceptance of all terms and conditions. This proposal may be withdrawn if not accepted by the expiration date below.

Customer Name (Please Print): \_\_\_\_\_

Signature: \_\_\_\_\_

Proposal valid until: 6/29/2013

Date of Acceptance: \_\_\_\_\_

Quote	QTE007288
Date	5/14/2013
Page	1

QUOTE

**QUOTE GOOD FOR  
60 DAYS**

Bill To:

Ship To:

J P LARUE, INC  
PO BOX 209  
LITTLE COMPTON RI 02837

PRESTON VETERANS MEM SCH  
325 Shetucket Tpke  
PRESTON CT 06365

Purchase Order No.	Customer ID	Salesperson ID	Shipping Method	Payment Terms	Req. Ship Date	Master No.
	J.P. LARUE, INC		BEST WAY	NET 30	0/0/0000	22,383
Quantity	Item Number	Description	UOM	Discount	Unit Price	Ext. Price
1.00	I21000	PROLOG INSTALL INSTRUCTIONS BIGTOYS, LAM	Each	\$0.0000	\$0.0000	\$0.00
6.00	L420	PLATFORM 9 BOARD-B	Each	\$0.00	\$596.00	\$3,576.00
1.00	L460	PLATFORM 12 BOARD-NB	Each	\$0.00	\$242.00	\$242.00
2.00	L475	PLATFORM 12 BOARD-N	Each	\$0.00	\$218.00	\$436.00
2.00	L405	PLATFORM 4 BOARD	Each	\$0.00	\$177.00	\$354.00
1.00	L400	PLATFORM 2 BOARD ACCESS	Each	\$0.0000	\$102.0000	\$102.00
1.00	03-031N	PLATFORM STEP - NATURAL	Each	\$0.0000	\$418.0000	\$418.00
1.00	L415	PLATFORM 9 BOARD	Each	\$0.00	\$501.00	\$501.00
2.00	L425	PLATFORM 9 BOARD-AB	Each	\$0.00	\$690.00	\$1,380.00
1.00	L480	PLATFORM 12 BOARD-AC	Each	\$0.00	\$139.00	\$139.00
1.00	L407	PLATFORM 4 BOARD 56 1/8"	Each	\$0.00	\$306.00	\$306.00
68.00	12-001	PLATFORM/COLUMN CONNECTOR	Each	\$0.00	\$6.22	\$410.52
5.00	Z11-092	9 BOARD INFILL	Each	\$0.0000	\$67.0000	\$335.00
1.00	I209-003	INSTALL INSTRUCTIONS HAMMOCK NET, LAM	Each	\$0.0000	\$0.0000	\$0.00
1.00	G310	(G310) NET HAMMOCK W/ HARDWARE - BLACK	Each	\$0.00	\$2,561.00	\$2,561.00
8.00	G315	(G315) NET ENTRY ROPE W/ NUT & WASHER - BL	Each	\$0.0000	\$144.0000	\$1,152.00
2.00	G963S	BRACKET, NET SUPPORT - MILW SILVER	EACH	\$0.0000	\$196.0000	\$392.00
2.00	Z308DG	CONNECTOR NET, LAM - DARK GREEN	Each	\$0.0000	\$161.0000	\$322.00
1.00	I03-034	INSTALL INSTRUCTIONS ACCESSIBLE STAIRS	Each	\$0.00	\$0.00	\$0.00
1.00	L550	STAIRS ACCESSIBLE	Each	\$0.00	\$495.00	\$495.00
1.00	D260DG	CONNECTOR STAIR 24"/ TRANSFER STATION - DA	Each	\$0.0000	\$6.0000	\$6.00
1.00	I03-039	INSTALL INSTRUCTIONS GROUND TO DECK STAI	Each	\$0.00	\$0.00	\$0.00
3.00	L535	TRANSFER GROUND TO DECK	Each	\$0.00	\$88.00	\$264.00
3.00	D235N	CONN GROUND TO DECK STAIRS - NATURAL	Each	\$0.00	\$26.00	\$78.00
1.00	I11-026	INSTALL INSTRUCTIONS WELCOME MAT	Each	\$0.0000	\$0.0000	\$0.00
3.00	D614	CONNECTOR WELCOME MAT WOOD	Each	\$0.00	\$2.94	\$8.82
3.00	Z910	WOOD SEAT BOARD	Each	\$0.00	\$20.00	\$60.00
3.00	Z911	WOOD SEAT EDGE BOARD	Each	\$0.00	\$25.00	\$75.00

PO AND REMITTANCE IS TO BE MADE TO BIGTOYS  
IF TAX EXEMPT PLEASE PROVIDE DOCUMENTATION WITH PO

Subtotal	\$13,611.34
Misc	\$0.00
Tax	\$976.97
Freight	\$1,774.00
Trade Discount	\$0.00
Total	\$16,362.31

**P & P Installations** .....of the finest park and playground equipment throughout the Northeast.

**PROPOSAL**

PO Box 222  
 Marathon, NY 13803  
 T: 607-849-6040 F: 607-849-4545  
 patrickvotra@frontier.com

Date: 5/29/2013  
 Proposal #: 1756

Bill To:  
 Preston Veteran's Memorial School  
 325 Shetucket Turnpike  
 Preston, CT 06365

Ship To:  
 Preston Veteran's Memorial School  
 325 Shetucket Turnpike  
 Preston, CT 06365

Project:

Sales Rep: JL

Description/Terms/Conditions	Total:
Installation of repair parts As per sales quote #QTE007286 from BigToys  Repair parts provided by others under separate contract	4,895.00
<p>                         **All equipment installation is in compliance with manufacturer's specifications.                          **Price assumes no overhead (13'6" or lower) or underground (within 3'6" of surface) obstacles.                          **Customer responsible for all site work prior to installation, unless otherwise stated above.                          **Customer responsible for removal of any existing equipment/obstacles prior to installation, unless otherwise stated above.                          **Nosurfacing materials can be installed prior to the equipment dig and installation process, unless otherwise stated above.                          **The site must be a well drained area, level as possible, with no more than a 1" in 10' slope or change in elevation, including all safety zones.                     </p> <p>                         This proposal is quoted at a non prevailing wage rate and is not valid for prevailing wage projects.                          To accept this proposal, please send signed contract to P &amp; P Installations with 50% deposit and purchase order for the remaining balance.                          Customer will be invoiced upon completion of the job. Payment in full is due within 30 days from completion of project, unless specific terms are stated above. A 1.5 % monthly finance charge will be assessed on any past due balances.                          Please verify correct billing information and site address to avoid delays in scheduling. Thank you.                     </p>	

**Total: \$4,895.00**

Your signature constitutes a valid order request and includes acceptance of all terms and conditions. This proposal may be withdrawn if not accepted by the expiration date below:

Customer Name (Please Print): \_\_\_\_\_

Signature: \_\_\_\_\_

Proposal valid until: 6/29/2013

Date of Acceptance: \_\_\_\_\_

# 1<sup>st</sup> Grade Mathematics Alignment—Common Core State Standards and CT Frameworks

NOTE: CCSS standards shown in blue do not have equivalent CT standards.

CCSS Standards	CT Framework Grade Level Expectations
<p><b>1.OA – Operations and Algebraic Thinking :</b> <i>Represent and solve problems involving addition and subtraction:</i></p>	
<p>1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>CT.1.1.2.5: Model real-life situations that represent the result of counting, combining and separation of sets of objects (addition and subtraction of whole numbers) with objects, pictures, symbols and open sentences.</p> <p>CT.1.2.2.13: Create problems and write one- and two-digit number sentences that reflect contextual situations and real world experiences. Solve the problems using a variety of methods, including models, pictures, pencil and paper, estimation and mental computation, and describe the reasoning and strategies used.</p> <p>CT.1.2.2.14: Solve contextual problems using all addition sums to [20] and subtraction differences from [20] with flexibility and fluency.</p>
<p>1.OA.2: Solve word problems that call for addition by three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>--Solve word problems that call for addition by three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>
<p><i>Understand and apply properties of operations and the relationship between addition and subtraction:</i></p>	
<p>1.OA.3: Apply properties of operations as strategies to add and subtract. Examples: If <math>8 + 3 = 11</math> is known, then <math>3 + 8 = 11</math> is also known (Commutative property of addition). To add <math>2 + 6 + 4</math>, the second two numbers can be added to make a ten so <math>2 + 6 + 4 = 2 + 10 = 12</math> (Associative property of addition). Students need not use formal terms for these properties.</p>	<p>--Apply properties of operations as strategies to add and subtract. Examples: If <math>8 + 3 = 11</math> is known, then <math>3 + 8 = 11</math> is also known (Commutative property of addition). To add <math>2 + 6 + 4</math>, the second two numbers can be added to make a ten so <math>2 + 6 + 4 = 2 + 10 = 12</math> (Associative property of addition). Students need not use formal terms for these properties.</p>
<p>1.OA.4: Understand subtraction as an unknown-addend problem, e.g., subtract <math>10 - 8</math> by finding the number that makes 10 when added to 8. <i>Add and subtract within 20:</i></p>	<p>--Understand subtraction as an unknown-addend problem, e.g., subtract <math>10 - 8</math> by finding the number that makes 10 when added to 8.</p>
<p>1.OA.5: Relate counting to addition and subtraction, e.g., by counting on 2 to add 2.</p>	<p>CT.1.2.2.10: Count on from a given amount, orally and with models, and count back from 10. --Relate counting to addition and subtraction, e.g., by counting on 2 to</p>

<p>1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as: counting on; making ten; decomposing a number leading to ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.</p>	<p>add 2. --Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as: counting on; making ten; decomposing a number leading to ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.</p>
<p><i>Work with addition and subtraction equations:</i></p>	
<p>1.OA.7: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false, e.g., <math>7=8-1</math>, <math>5+2=2+5</math>, <math>4+1=5+2</math>. Which of the following equations are true and which are false? <math>6=6</math>,</p>	<p>CT.K.2.2.1.1: Write the number sentences that correspond to story problems using addition, subtraction and equals symbols (<math>+</math>, <math>-</math>, <math>=</math>) correctly. CT 1.1.2.5: Model real-life situations that represent the result of counting, combining and separation of sets of objects (addition and subtraction of whole numbers) with objects, pictures, symbols and open sentences. CT.1.1.3.6: Demonstrate understanding of equivalence or balance with objects, models, diagrams, operations or numbers, e.g., using a balance scale or an arm balance showing the same amount on both sides. --Determine if equations involving addition and subtraction are true or false.</p>
<p>1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers, e.g., Determine the unknown number that makes the equation true in each of the equations <math>8+? = 11</math>, <math>5=?-3</math>, <math>6+6=?</math></p>	<p>CT.1.1.3.6: Demonstrate understanding of equivalence or balance with objects, models, diagrams, operations or numbers, e.g., using a balance scale or an arm balance showing the same amount on both sides. --Determine the unknown whole number in an addition or subtraction equation relating three whole numbers, e.g., Determine the unknown number that makes the equation true in each of the equations <math>8+? = 11</math>, <math>5=?-3</math>, <math>6+6=?</math></p>
<p><b>1.NBT - Number and Operations in Base Ten:</b></p>	
<p><i>Extend the counting sequence:</i></p>	
<p>1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.</p>	<p>--Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.</p>
<p><i>Understand place value:</i></p>	
<p>1.NBT.2: Understand that the two digits of a two-digit number represents amounts of tens and ones. Understand the following as</p>	<p>CT.1.2.1.1: Represent and identify whole numbers up to 100 as groups of tens and ones using models and number lines.</p>

<p>special cases:  --10 can be thought of as a bundle of ten ones – called a “ten.”  --The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.  --The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight or nine tens (and 0 ones).</p>	<p>CT.2.1.2: Recognize, extend and create repeating, growing and number patterns such as skip counting, odd/even, counting on by 10, and one and two attribute patterns. Describe the patterns and the rule used to make it.</p>
<p>1.NBT.3: Compare two two-digit numbers base on meanings of the tens and ones digits, recording the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p>	<p>--Compare two two-digit numbers base on meanings of the tens and ones digits, recording the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p>
<p><i>Use place value understanding and properties of operations to add and subtract:</i></p>	
<p>1.NBT.4: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.</p>	<p>--Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.</p>
<p>1.NBT.5: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p>	<p>--Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p>
<p>1.NBT.6: Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>	<p>--Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>
<p><b>1.MD – Measurement and Data:</b></p>	
<p><i>Measure lengths indirectly and by iterating length units.</i></p>	
<p>1.MD.1: Order three objects by length; compare the lengths of two objects indirectly by using a third object.</p>	<p>CT.K.3.9: Describe and order small sets of familiar objects by size, length or area using comparative language such as more, bigger, longer, shorter and taller.</p>
<p>1.MD.2: Express the length of an object as a whole number of length units by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.</p>	<p>CT.1.3.9: Use nonstandard units, references or direct comparison of objects (appearance) to order objects by length, area and capacity.  --Express the length of an object as a whole number of length units by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. (Limit to</p>

<p>(Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps).</p> <p><i>Tell and write time.</i></p>	<p>contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps).</p>
<p>1.MD.3: Tell and write time in hours and half-hours using analog and digital clocks.</p>	<p>CT.1.3.3.7: Solve problems involving telling time to the nearest hour using digital and analog clocks. Estimate and compare the length of time needed to complete a task using comparative language such as longer, shorter, more or less.</p> <p>CT.2.3.3.6: Solve problems involving telling time, including estimating and measuring the length of time needed to complete a task, to the half-hour using analog and digital clocks.</p>
<p><i>Represent and interpret data.</i></p>	
<p>1.MD.4: Organize, represent and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.</p>	<p>CT.1.4.1.2: Collect and systematically organize and represent the data that answers the questions using lists, charts and tables, tallies, glyphs (coded pictures), picture graphs and bar graphs.</p> <p>CT.1.4.2.3: Describe data that have been organized and make comparisons using terms such as largest, smallest, most often or least often.</p>
<p><b>1.G – Geometry</b></p>	
<p><i>Reason with shapes and their attributes.</i></p>	
<p>1.G.1: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.</p> <p>1.G.2: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.</p>	<p>--Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.</p> <p>CT.2.3.2.4: Investigate and predict the result of putting together and taking apart two- and three-dimensional shapes in the environment, e.g., use objects to find other shapes that can be made from three triangles or a rectangle and a triangle.</p> <p>CT.3.3.1.1: Identify, describe, construct and draw two-dimensional shapes such as quadrilaterals (including parallelograms), pentagons and hexagons.</p> <p>CT.3.3.1.2: Identify, describe, construct and represent three-dimensional figures such as cubes, spheres, cylinders, cones, pyramids, prisms.</p> <p>--Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular</p>

<p>1.G.3: Partition circles and rectangles into two and four equal shares, describe the shared using the words <i>halves</i>, <i>fourths</i> and <i>quarters</i>, and use the phrases <i>half of</i>, <i>fourth of</i> and <i>quarter of</i>. Describe the whole as two of or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.</p>	<p>cylinders) to create a composite shape, and compose new shapes from the composite shape.</p> <p>--Partition circles and rectangles into two and four equal shares, describe the shared using the words <i>halves</i>, <i>fourths</i> and <i>quarters</i>, and use the phrases <i>half of</i>, <i>fourth of</i> and <i>quarter of</i>. Describe the whole as two of or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.</p>
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Grade One Standards for Mathematical Practice

The K-12 Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. This page gives examples of what the practice standards look like at the specified grade level.

**Standards**

**Explanations and Examples**

Students are expected to:

**1. Make sense of problems and persevere in solving them.**

Students are expected to:

**2. Reason abstractly and quantitatively.**

Students are expected to:

**3. Construct viable arguments and critique the reasoning of others.**

Students are expected to:

**4. Model with mathematics.**

Students are expected to:

**5. Use appropriate tools strategically.**

Students are expected to:

**6. Attend to precision.**

Students are expected to:

**7. Look for and make use of structure.**

Students are expected to:

**8. Look for and express regularity in repeated reasoning.**

In first grade, students realize that doing mathematics involves solving problems and discussing how they solved them. Students explain to themselves the meaning of a problem and look for ways to solve it. Younger students may use concrete objects or pictures to help them conceptualize and solve problems. They may check their thinking by asking themselves, "Does this make sense?" They are willing to try other approaches.

Younger students recognize that a number represents a specific quantity. They connect the quantity to written symbols. Quantitative reasoning entails creating a representation of a problem while attending to the meanings of the quantities.

First graders construct arguments using concrete referents, such as objects, pictures, drawings, and actions. They also practice their mathematical communication skills as they participate in mathematical discussions involving questions like "How did you get that?", "Explain your thinking," and "Why is that true?" They not only explain their own thinking but listen to others' explanations. They decide if the explanations make sense and ask questions.

In early grades, students experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, acting out, making a chart or list, creating equations, etc. Students need opportunities to connect the different representations and explain the connections. They should be able to use all of these representations as needed.

In first grade, students begin to consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful. For instance, first graders decide it might be best to use colored chips to model an addition problem.

As young children begin to develop their mathematical communication skills, they try to use clear and precise language in their discussions with others and when they explain their own reasoning.

First graders begin to discern a pattern or structure. For instance, if students recognize  $12 + 3 = 15$ , then they also know  $3 + 12 = 15$ . (Commutative property of addition.) To add  $4 + 6 + 4$ , the first two numbers can be added to make a ten, so  $4 + 6 + 4 = 10 + 4 = 14$ .

In the early grades, students notice repetitive actions in counting and computation, etc. When children have multiple opportunities to add and subtract "ten" and multiples of "ten" they notice the pattern and gain a better understanding of place value. Students continually check their work by asking themselves, "Does this make sense?"

# 5<sup>th</sup> Grade Mathematics Alignment—Common Core State Standards and CT Frameworks

NOTE: CCSS standards shown in blue do not have equivalent CT standards.

CCSS Standards	CT Framework Grade Level Expectations
<p><b>5.OA: Operations and Algebraic Thinking</b> <i>Write and interpret numerical expressions</i></p>	
<p>5.OA.1: Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>5.OA.2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculations “add 8 and 7, then multiply by 2” as <math>2 \times (8 + 7)</math>. Recognize that <math>3 \times (18932 + 921)</math> is three times as large as <math>18932 + 921</math>, without having to calculate the indicated sum or product.</p>	<p>CT.5.1.2.3: Represent and describe mathematical relationships using variables or symbols in expressions, equations and inequalities.</p> <p>--Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculations “add 8 and 7, then multiply by 2” as <math>2 \times (8 + 7)</math>. Recognize that <math>3 \times (18932 + 921)</math> is three times as large as <math>18932 + 921</math>, without having to calculate the indicated sum or product.</p> <p>CT.5.1.3.6: Model, write and solve one-step equations by using appropriate concrete materials that model equivalence (e.g., if <math>4 \times \underline{\quad} = 36</math>, then <math>\underline{\quad}</math> equals 9).</p>
<p><i>Analyze patterns and relationships</i></p>	
<p>5.OA.3: Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</p>	<p>CT.5.1.1.2: Analyze patterns and data to make generalizations, make predictions and to identify trends.</p> <p>CT.5.3.2.5: Use an <math>x, y</math> coordinate system to plot points, to estimate the distance between points and to determine the horizontal or vertical distance between two points.</p>
<p><b>5.NBT: Number and Operations in Base Ten</b> <i>Understand the place value system</i></p>	
<p>5.NBT.1: Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what is represents in the place to its left.</p>	<p>--Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what is represents in the place to its left.</p> <p>CT.5.1.2.3: Construct and use models, number patterns and pictorial representations to extend place value concepts and patterns to decimals (e.g., 0.1 is one-tenth of one and 0.01 is one one-hundredth of one and one-tenth of 0.1).</p>

<p>5.NBT.2: Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote power of 10.</p>	<p>CT.6.2.2.8: Understand place value and patterns in place value when multiplying and dividing decimals by powers of 10.</p> <p>CT.6.2.2.9: Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and power of 10.</p> <p>CT.7.2.2.13: Compare the magnitude of and compute with whole numbers expressed as positive powers of 10.</p>
<p>5.NBT.3: Read, write and compare decimals to thousandths.</p> <p>a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form (e.g., <math>347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)</math>).</p> <p>b. Compare two decimals to thousandths based on meanings of the digits in each place, using <math>&gt;</math>, <math>=</math> and <math>&lt;</math> symbols to record these results of comparisons.</p>	<p>CT.6.2.1.3: Represent and compare whole numbers (to a billion) and decimals (to thousandths) in expanded notation.</p> <p>CT.6.2.1.2: Compare and order whole numbers, fractions, decimals and positive and negative integers in context using number lines and scales.</p>
<p>5.NBT.4: Use place value understanding to round decimals to any place.</p>	<p>CT.5.2.1.1.1: Compare, order and round whole numbers to 1,000,000 using number patterns, number lines and diagrams.</p>
<p><i>Perform operations with multi-digit whole numbers and with decimals to hundredths</i></p>	
<p>5.NBT.5: Fluently multiply multi-digit whole numbers using the standard algorithm.</p>	<p>CT.6.2.2.9: Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers [ decimals and powers of 10].</p> <p>CT.7.2.2: Apply a variety of strategies to write and solve problems involving addition, subtraction, multiplication and division of positive rational numbers, including whole number [ fractions and decimals].</p>
<p>5.NBT.6: Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>--Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>CT.6.2.2.9: Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and powers of 10.</p>
<p>5.NBT.7: Add, subtract, multiply and divide decimals to hundredths, using concrete models or drawings and strategies based on place value,</p>	<p>CT.7.2.2: Apply a variety of strategies to write and solve problems involving addition, subtraction, multiplication and division of positive rational numbers, including whole numbers, fractions and decimals.</p> <p>--Add, subtract, multiply and divide decimals to hundredths, using concrete models or drawings and strategies based on place value,</p>

<p>properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>	<p>properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p> <p>CT.6.2.2.9: Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and powers of 10.</p> <p>CT.7.2.2.9: Apply a variety of strategies to write and solve problems involving addition, subtraction, multiplication and division of positive rational numbers, including whole numbers, fractions, and decimals.</p>
<p><b>5.NF: Number and Operations - Fractions</b></p> <p><i>Use equivalent fractions as a strategy to add and subtract fractions.</i></p>	
<p>5.NF.1: Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, <math>\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}</math> (in general, <math>\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}</math>).</p> <p>5.NF.2: Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models or equations to represent the problem). Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result <math>\frac{2}{5} + \frac{1}{2} = \frac{3}{7}</math>, by observing that <math>\frac{3}{7} &lt; \frac{1}{2}</math>.</p>	<p>--Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, <math>\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}</math> (in general, <math>\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}</math>).</p> <p>--Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models or equations to represent the problem). Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result <math>\frac{2}{5} + \frac{1}{2} = \frac{3}{7}</math>, by observing that <math>\frac{3}{7} &lt; \frac{1}{2}</math>.</p>
<p><i>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</i></p>	
<p>5.NF.3: Interpret a fraction as division of the numerator by the denominator (<math>\frac{a}{b} = a \div b</math>). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers (e.g., by using visual fraction models or equations to represent the problem). For example, interpret <math>\frac{3}{4}</math> as the result of dividing 3 by 4, noting that <math>\frac{3}{4}</math> multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size <math>\frac{3}{4}</math>. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</p>	<p>--Interpret a fraction as division of the numerator by the denominator (<math>\frac{a}{b} = a \div b</math>). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers (e.g., by using visual fraction models or equations to represent the problem). For example, interpret <math>\frac{3}{4}</math> as the result of dividing 3 by 4, noting that <math>\frac{3}{4}</math> multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size <math>\frac{3}{4}</math>. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</p>
<p>CT.5.2.1.8: Write division problems in fraction form and round the fraction form to estimate an answer to a division problem.</p>	

<p><b>5.NF.4:</b> Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>a. Interpret the product <math>(a/b) \times q</math> as <math>a</math> parts of a partition of <math>q</math> into <math>b</math> equal parts; equivalently, as the result of a sequence of operations <math>a \times q / b</math>. For example, use a visual fraction model to show <math>(2/3) \times 4 = 8/3</math>, and create a story context for this equation. Do the same with <math>(2/3) \times (4/5) = 8/15</math> (in general, <math>(a/b) \times (c/d) = ac/bd</math>).</p> <p>b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</p>	<p>--Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>a. Interpret the product <math>(a/b) \times q</math> as <math>a</math> parts of a partition of <math>q</math> into <math>b</math> equal parts; equivalently, as the result of a sequence of operations <math>a \times q / b</math>. For example, use a visual fraction model to show <math>(2/3) \times 4 = 8/3</math>, and create a story context for this equation. Do the same with <math>(2/3) \times (4/5) = 8/15</math> (in general, <math>(a/b) \times (c/d) = ac/bd</math>).</p> <p>b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</p> <p><b>CT.6.2.2.15:</b> Use the inverse relationships between multiplication and division to make sense of procedures for multiplying and dividing fractions.</p>
<p><b>5.NF.5:</b> Interpret multiplication as scaling (resizing) by:</p> <p>a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</p> <p>b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence <math>a/b = (n \times a)/(n \times b)</math> to the effect of multiplying <math>a/b</math> by 1.</p>	<p><b>CT.5.3.1.2:</b> Develop formulas for finding the perimeter and area of squares, rectangles and triangles and use them to solve problems.</p> <p>--Interpret multiplication as scaling (resizing) by:</p> <p>a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</p> <p>b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence <math>a/b = (n \times a)/(n \times b)</math> to the effect of multiplying <math>a/b</math> by 1.</p> <p><b>CT.6.2.2.15:</b> Use the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions.</p>
<p><b>5.NF.6:</b> Solve real world problems involving multiplication of fractions and mixed numbers (e.g., by using visual fraction models or equations to</p>	<p><b>CT.6.2.2.14:</b> Examine the relationships between multiplication by a unit fraction and division by the fraction's denominator, and use this to solve problems. For example, <math>1/2</math> of \$6 is the same as \$6 / 2.</p> <p><b>CT.5.2.2.17:</b> Construct and use models and pictorial representations to multiply common fractions and mixed numbers by whole numbers.</p>

<p>represent the problem).</p>	<p>CT.6.2.2.12: Add, subtract, multiply and divide by fractions and decimals in context.</p>
<p>CT.7.2.2: Apply a variety of strategies to write and solve problems involving addition, subtraction, multiplication and division of positive rational numbers, including whole numbers, fractions and decimals.</p>	<p>CT.6.2.2.15: Use the inverse relationships between multiplication and division to make sense of procedures for multiplying and dividing fraction.</p>
<p>5.NF.7: Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p>	<p>CT.6.2.2.14: Examine the relationships between multiplication by a unit fraction and dividing by the fraction's denominator, and use this to solve problems.</p>
<p>a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for <math>(1/3) / 4</math>, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>(1/3) / 4 = 1/12</math> because <math>(1/12) \times 4 = 1/3</math>.</p>	<p>CT.7.2.2: Apply a variety of strategies to write and solve problems involving addition, subtraction, multiplication and division of positive rational numbers, including whole numbers, fractions and decimals.</p>
<p>b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for <math>4 / (1/5)</math>, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>4 / (1/5) = 20</math> because <math>20 \times (1/5) = 4</math>.</p>	<p>CT.5.3.3.10: Solve length problems involving conversions of measure within the customary (inches, feet, yards and miles) or metric systems</p>
<p>c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions (e.g., by using visual fraction models and equations to represent the problem). For example, how much chocolate will each person get if 3 people share <math>1/2</math> lb. of chocolate equally? How many <math>1/3</math>-cup servings are in 2 cups of raisins?</p>	<p>5.MD: Measurement and Data</p>
<p>5.NF.7: Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p>	<p>Convert like measurement units within a given measurement system</p>
<p>a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for <math>(1/3) / 4</math>, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that <math>(1/3) / 4 = 1/12</math> because <math>(1/12) \times 4 = 1/3</math>.</p>	<p>5.MD.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m) and</p>

<p>use these conversions in solving multi-step, real world problems.</p> <p>(millimeters, centimeters, meters and kilometers).</p> <p>CT.5.3.3.7: Use calendars and clocks to plan and sequence events and to solve problems involving the conversion of measures of time and elapsed time using days, hours, minutes and seconds.</p> <p>CT.6.3.3.9: Use ratios to convert between customary units of length, mass, capacity and time.</p> <p>CT.6.3.3.10: Use ratios and powers of 10 to convert between metric units.</p> <p>CT.7.3.3.11: Write and solve problems in context involving conversions of customary or metric units and units of time.</p>	<p>--Make a line plot to display a data set of measurements in fractions of a unit (<math>1/2</math>, <math>1/4</math>, <math>1/8</math>). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</p>
<p><i>Represent and interpret data</i></p>	
<p>5.MD.2: Make a line plot to display a data set of measurements in fractions of a unit (<math>1/2</math>, <math>1/4</math>, <math>1/8</math>). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</p>	<p><i>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition</i></p>
<p>5.MD.3: Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <p>a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.</p> <p>b. A solid figure which can be packed without gaps or overlaps using <math>n</math> unit cubes is said to have a volume of <math>n</math> cubic units.</p>	<p>CT.5.3.3.9: Use cubic inch or cubic centimeter models to find the volume of rectangular solids.</p>
<p>5.MD.4: Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.</p>	<p>CT.5.3.3.9: Use cubic inch or cubic centimeter models to find the volume of rectangular solids.</p>
<p>5.MD.5: Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and how that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes (e.g., to represent the associative</p>	<p>CT.6.3.3.8: Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.</p> <p>Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and how that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes (e.g., to represent the associative property of</p>

<p>property of multiplication).</p> <p>b. Apply the formulas <math>V = l \times w \times h</math> and <math>V = b \times h</math> for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.</p> <p>c. Recognize volume as additive. Find volumes of solid figures compose of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p> <p>CT.5.3.3.8: Estimate and measure to solve a variety of problems that involve angles, length, area, weight, mass, temperature, capacity and volume in either metric or customary units; explain the reasoning used orally and in writing.</p> <p>CT.5.3.3.9: Use cubic inch or cubic centimeter models to find the volume of rectangular solids.</p> <p>CT.6.3.2.6: Use and describe concrete strategies for finding the volume of rectangular solids and cylinders.</p> <p>CT.7.3.3.9: Develop and use formulas to determine volumes of geometric solids (rectangular prisms and cylinders).</p> <p>CT.6.3.3.8: Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight</p>	<p>multiplication).</p> <p>b. Apply the formulas <math>V = l \times w \times h</math> and <math>V = b \times h</math> for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.</p> <p>c. Recognize volume as additive. Find volumes of solid figures compose of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p>
<p><b>5.G: Geometry</b></p>	
<p><i>Graph points on the coordinate plane to solve real-world and mathematical problems.</i></p>	
<p>CT.5.3.2.5: Use an <math>x, y</math> coordinate system to plot points, to estimate the distance between points and to determine the horizontal or vertical distance between two points.</p>	<p>5.G.1: Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged by coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., <math>x</math>-axis and <math>x</math>-coordinate, <math>y</math>-axis and <math>y</math>-coordinate).</p>
<p>CT.4.3.2.4: Draw and interpret simple maps with ordered pairs of numbers and/or letters in quadrant one of an <math>x, y</math> coordinate system and find possible paths between two points.</p>	<p>5.G.2: Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>
<p>CT.5.3.2.5: Use an <math>x, y</math> coordinate system o plot points, to estimate the</p>	

<p><i>Classify two-dimensional figures into categories based on their properties</i></p> <p>5.G.3: Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p>	<p>distance between points and to determine the horizontal or vertical distance between two points.</p> <p>--Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p> <p>CT.5.3.1.3: Use the attributes of parallel sides, perpendicular sides, congruent sides/angles, number and length of sides or faces and number and kinds of angles (right, acute or obtuse) to describe, classify and sort polygons and solids (cube, prism, pyramid and sphere).</p> <p>CT.6.3.1.1: Classify sets and subsets of polygons using the relationships of the sides (length, parallel and perpendicular) and angles (types and measures).</p>
<p>5.G.4: Classify two-dimensional figures in a hierarchy based on properties; classify two-dimensional figures in a hierarchy based on properties.</p>	<p>--Classify two-dimensional figures in a hierarchy based on properties; classify two-dimensional figures in a hierarchy based on properties.</p> <p>CT.5.3.1.3: Use the attributes of parallel sides, perpendicular sides, congruent sides/angles, number and length of sides or faces and number and kinds of angles (right, acute or obtuse) to describe, classify and sort polygons and solids (cube, prism, pyramid and sphere).</p> <p>CT.6.3.1.1: Classify sets and subsets of polygons using the relationships of the sides (length, parallel and perpendicular) and angles (types and measures).</p>
<p><b><i>The following CT standard(s) are not matched to the CCSS and should not be addressed by instruction at this level.</i></b></p>	
	<p>5.4.1.2: Compare different representations of the same data set and evaluate how well each kind of display represents the features of the data.</p>

Grade Five Standards for Mathematical Practice

The K-12 Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. This page gives examples of what the practice standards look like at the specified grade level.

**Standards**

**Explanations and Examples**

Students are expected to:

- 1. Make sense of problems and persevere in solving them.**

Students solve problems by applying their understanding of operations with whole numbers, decimals, and fractions including mixed numbers. They solve problems related to volume and measurement conversions. Students seek the meaning of a problem and look for efficient ways to represent and solve it. They may check their thinking by asking themselves, "What is the most efficient way to solve the problem?", "Does this make sense?", and "Can I solve the problem in a different way?".

Students are expected to:

- 2. Reason abstractly and quantitatively.**

Fifth graders should recognize that a number represents a specific quantity. They connect quantities to written symbols and create a logical representation of the problem at hand, considering both the appropriate units involved and the meaning of quantities. They extend this understanding from whole numbers to their work with fractions and decimals. Students write simple expressions that regard calculations with numbers and represent or round numbers using place value concepts.

Students are expected to:

- 3. Construct viable arguments and critique the reasoning of others.**

In fifth grade, students may construct arguments using concrete referents, such as objects, pictures, and drawings. They explain calculations based upon models and properties of operations and rules that generate patterns. They demonstrate and explain the relationship between volume and multiplication. They refine their mathematical communication skills as they participate in mathematical discussions involving questions like "How did you get that?" and "Why is that true?" They explain their thinking to others and respond to others' thinking.

Students are expected to:

- 4. Model with mathematics.**

Students experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, making a chart, list, or graph, creating equations, etc. Students need opportunities to connect the different representations and explain the connections. They should be able to use all of these representations as needed. Fifth graders should evaluate their results in the context of the situation and whether the results make sense. They also evaluate the utility of models to determine which models are most useful and efficient to solve problems.

Students are expected to:

- 5. Use appropriate tools strategically.**

	<p>Fifth graders consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful. For instance, they may use unit cubes to fill a rectangular prism and then use a ruler to measure the dimensions. They use graph paper to accurately create graphs and solve problems or make predictions from real world data.</p>
<p>Students are expected to: <b>6. Attend to precision.</b></p>	<p>Students continue to refine their mathematical communication skills by using clear and precise language in their discussions with others and in their own reasoning. Students use appropriate terminology when referring to expressions, fractions, geometric figures, and coordinate grids. They are careful about specifying units of measure and state the meaning of the symbols they choose. For instance, when figuring out the volume of a rectangular prism they record their answers in cubic units.</p>
<p>Students are expected to: <b>7. Look for and make use of structure.</b></p>	<p>Fifth grade students look closely to discover a pattern or structure. For instance, students use properties of operations as strategies to add, subtract, multiply and divide with whole numbers, fractions, and decimals. They examine numerical patterns and relate them to a rule or a graphical representation.</p>
<p>Students are expected to: <b>8. Look for and express regularity in repeated reasoning.</b></p>	<p>Fifth graders use repeated reasoning to understand algorithms and make generalizations about patterns. Students connect place value and their prior work with operations to understand algorithms to fluently multiply multi-digit numbers and perform all operations with decimals to hundredths. Students explore operations with fractions with visual models and begin to formulate generalizations.</p>

# 6<sup>th</sup> Grade Mathematics Alignment—Common Core State Standards and CT Frameworks

NOTE: CCSS standards shown in blue do not equivalent CT standards.

CCSS Standards	CT Framework Grade Level Expectations
<b>6.RP: Ratios and Proportional Relationships</b>	
<i>Understand ratio concepts and use ratio reasoning to solve problems</i>	
<p>6.RP.1: Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For examples, “The ratio of wings to beaks in the bird house at the zoon was 2:1, because for every 2 wings there was 1 beak.”</p> <p>6.RP.2: Understand the concept of a unit rate <math>a/b</math> associated with a ratio <math>a:b</math> with <math>b \neq 0</math>, and use rate language in the context of a ratio relationships. For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is <math>\frac{3}{4}</math> cup of flour for each cup of sugar.”</p>	<p>CT.5.2.1.9: Use models and pictures to identify and compare ratios and to represent ratios in equivalent fraction and decimal forms.</p> <p>CT.6.2.1.7: Use ratios and rates (involving different units) to compare quantities.</p> <p>CT.6.2.1.7: Use ratios and rates (involving different units) to compare quantities.</p> <p>CT.6.2.2.11: Solve practical problems involving rates, ratios, percentages and proportionality.</p> <p>CT.7.2.2.10: Write ratios and proportions to solve problems in context involving rates, scale factors and percentages.</p>
<p>6.RP.3: Use ratio and rate reasoning to solve real-world and mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p> <p>a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.</p> <p>b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were laws being mowed?</p> <p>c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 time the quantity); solve problems involving finding the whole, given a part and the percent.</p> <p>d. Use ratio reasoning to convert measurement units, manipulate and transform units appropriately when multiplying or dividing quantities.</p>	<p>--Use ratio and rate reasoning to solve real-world and mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.</p> <p>a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.</p> <p>b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were laws being mowed?</p> <p>c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 time the quantity); solve problems involving finding the whole, given a part and the percent.</p> <p>d. Use ratio reasoning to convert measurement units, manipulate and transform units appropriately when multiplying or dividing quantities.</p> <p>CT.6.1.2.2: Create tables of values and scatter plots from mathematical relationships and equations and vice versa to solve problems.</p> <p>CT.6.2.2.11: Solve practical problems involving rates, ratios,</p>

<p>percentages and proportionality.</p> <p>CT.7.2.2.10: Write ratios and proportions to solve problems in context involving rates, scale factors and percentages.</p> <p>CT.8.2.2.8: Estimate reasonable answers and solve problems in context involving rational and common irrational numbers, ratios and percentages, including percentage of increase and decrease, and justify solutions in writing.</p> <p>CT.6.2.2.10: Estimate and find percentages of a number in context using benchmarks and number patterns and ratios to 100.</p> <p>CT.7.2.2.12: Solve percent problems in context using a variety of strategies, i.e., proportions or equations, including what percentage one number is of another and finding percentage increase and/or decrease.</p> <p>CT.8.2.2.10: Solve a variety of problems in context involving percents, including the following: percentage of a number; the percentage one number is of another number; the percentage of a missing amount; percentage increase/decrease.</p> <p>CT.6.3.3.9: Use ratios to convert between customary units of length, mass, capacity and time.</p> <p>CT.6.3.3.10: Use ratios and powers of 10 to convert between metric units.</p> <p>CT.7.3.3.11: Write and solve problems in context involving conversions of customary or metric units and units of time.</p>	
<p><b>6.NS: The Number System</b></p>	
<p><i>Apply and extend previous understandings of multiplication and division to divide fractions by fractions</i></p>	
<p>CT.6.2.2.15: Use the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions.</p> <p>CT.6.2.2.19: Write and solve multistep problems in context involving addition, subtraction, multiplication, and division with whole numbers, fractions, decimals, money and simple percentages.</p> <p>CT.6.2.2.14: Examine the relationships between multiplication by a unit fraction and dividing by the fraction's denominator (e.g., <math>\frac{1}{2}</math> of \$6 is the same as <math>\\$6 / 2</math>) and use this to solve problems.</p> <p>CT.6.2.2.16: Understand and defend in writing the magnitude of the result of multiplication or division problems involving fractions or decimals.</p>	<p>6.NS.1: Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions (e.g., by using visual fraction models and equations to represent the problem). For example, create a story context for <math>(2/3) / (3/4)</math> and use a visual fraction model to show the quotient; use the relationships between multiplication and division to explain that <math>(2/3) / (3/4) = 8/9</math> because <math>3/4</math> of <math>8/9</math> is <math>2/3</math> (in general, <math>(a/b) / (c/d) = ad/bc</math>).</p>

<i>Compute fluently with multi-digit numbers and find common factors and multiples</i>	
6.NS.2: Fluently divide multi-digit numbers using the standard algorithm.	<p>CT.5.2.2.12: Develop and use strategies involving place value relationships, inverse operations and algebraic properties (commutative, associative and distributive) to simplify addition, subtraction and multiplication problems with 3-, 4-, and 5-digit numbers and money amounts and division by one-digit factors.</p> <p>CT.6.2.2.9: Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and powers of 10.</p> <p>CT.6.2.2.19: Write and solve multistep problems in context involving addition, subtraction, multiplication and division with whole numbers, fractions, decimals, money and simple percentages.</p> <p>CT.5.2.2.16: Add and subtract fractions, decimals and mixed numbers using a variety of strategies (e.g., models, mental math, equivalence and substitution).</p> <p>CT.5.2.2.13: Multiply and divide decimals and money amounts by whole numbers.</p> <p>CT.6.2.2.9: Develop, describe and use strategies for solving, simplifying and estimating multiplication and division problems involving large numbers, decimals and powers of 10.</p> <p>CT.6.2.2.12: Add, subtract, multiply and divide by fractions and decimals in context.</p> <p>--Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express <math>36 + 8</math> as <math>4(9 + 2)</math>.</p> <p>CT.7.2.2.8: Apply the order of operations and algebraic properties (commutative, associative, distributive, inverse operations, and the additive and multiplicative identities) to write, simplify and solve problems including those with parentheses and exponents.</p>
6.NS.3: Fluently add, subtract, multiply and divide multi-digit decimals using the standard algorithm for each operation.	
6.NS.4: Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$ .	
<i>Apply and extend previous understandings of numbers to the system of rational numbers</i>	
6.NS.5: Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level	<p>CT.5.2.1.4: Investigate negative integers (values less than zero) using place value models, diagrams and number lines and represent negative integers in practical applications (e.g., temperatures, money and locations</p>

<p>credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.</p>	<p>below sea level).</p>
<p>6.NS.6: Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <p>a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself (e.g., <math>-(-3) = 3</math>), and that 0 is its own opposite.</p> <p>b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.</p> <p>c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.</p>	<p>--Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <p>a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself (e.g., <math>-(-3) = 3</math>), and that 0 is its own opposite.</p> <p>b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.</p> <p>c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.</p> <p>CT.5.2.1.4: Investigate negative integers (values less than zero) using place value models, diagrams and number lines; represent negative integers in practical applications such as temperatures, money and locations below sea level.</p> <p>CT.6.2.1.1: Locate and label whole numbers, fractions, decimals and positive and negative integers on number lines, scales, coordinate grids (all four quadrants) and measurement tools.</p> <p>CT.7.2.1.1: Compare and order rational numbers such as <math>-2</math>, <math>3/8</math>, <math>-3.15</math> or 0.8 in context and locate them on number lines, scales and coordinate grids.</p>
<p>6.NS.7: Understand ordering and absolute value of rational numbers:</p> <p>a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret <math>-3 &gt; -7</math> as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</p> <p>b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write <math>-3^{\circ}\text{C}</math> is warmer than <math>-7^{\circ}\text{C}</math>.</p>	<p>Understand ordering and absolute value of rational numbers:</p> <p>a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret <math>-3 &gt; -7</math> as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</p> <p>b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write <math>-3^{\circ}\text{C}</math> is warmer than <math>-7^{\circ}\text{C}</math>.</p> <p>c. Understand the absolute value of a rational number as its distance</p>

<p>c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write <math> 30  = 30</math> to describe the size of the debt in dollars.</p> <p>d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.</p>	<p>from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write <math> 30  = 30</math> to describe the size of the debt in dollars.</p> <p>d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.</p> <p>CT.6.2.1.2: Compare and order whole numbers, fractions, decimals and positive and negative integers in context using number lines and scales.</p> <p>CT.7.2.1.1: Compare and order rational numbers such as -2, <math>\frac{3}{8}</math>, -3.15 or 0.8 in context and locate them on number lines, scales and coordinate grids.</p>
<p>6.NS.8: Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.</p>	<p>--Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.</p>
<p><b>6.EE: Expressions and Equations</b></p>	
<p><i>Apply and extend previous understandings of arithmetic to algebraic expressions</i></p>	
<p>6.EE.1: Write and evaluate numerical expressions involving whole-number exponents.</p>	<p>--Write and evaluate numerical expressions involving whole-number exponents.</p>
<p>6.EE.2: Write, read, and evaluate expressions in which letters stand for numbers.</p>	<p>CT.5.1.2.3: Represent and describe mathematical relationships using variables or symbols in expressions, equations and inequalities.</p>
<p>a. Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation "Subtract <math>y</math> from 5" as <math>5 - y</math>.</p> <p>b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression <math>2(8 + 7)</math> as a product of two factors; view <math>(8 + 7)</math> as both a single entity and a sum of two terms.</p>	<p>CT.6.1.2.4: Write expressions, formulas, equations or inequalities using symbols or variables to denote a pattern or represent a contextual situation.</p> <p>CT.5.1.3.5: Replace variables or symbols in algebraic expressions with given values and evaluate or simplify the expression (e.g., If <math>\_\_\_ = 5</math>, find the value of <math>4x \_\_\_ + 7</math>).</p>
<p>c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas <math>V = s^3</math> and <math>A = 6s^2</math> to find the volume and</p>	<p>CT.6.1.3.5: Evaluate algebraic expressions and formulas using substitution.</p> <p>CT.7.1.3.7: Evaluate and simplify algebraic expressions, equations and formulas using algebraic properties (e.g., commutative, associative, distributive, inverse operations, and the additive and multiplicative identities) and the order of operations.</p>

<p>surface area of a cube with sides of length <math>s = \frac{1}{2}</math>.</p> <p>6.EE.3: Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression <math>3(2 + x)</math> to produce the equivalent expression <math>6 + 3x</math>.</p>	<p>CT.7.1.3.7: Evaluate and simplify algebraic expressions, equations and formulas using algebraic properties (i.e., commutative, associative, distributive, inverse operations, and the additive and multiplicative identities) and the order of operations.</p> <p>CT.8.3.1.2: Write and solve multistep equations using various algebraic methods, including the distributive property such as <math>3(x + 2 = 10)</math>, combining like terms such as <math>3x + 2x - 15</math>, and properties of equality and justify the solutions.</p>
<p>6.EE.4: Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions <math>y + y + y</math> and <math>3y</math> are equivalent because they name the same number regardless of which number <math>y</math> stands for.</p>	<p>--Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions <math>y + y + y</math> and <math>3y</math> are equivalent because they name the same number regardless of which number <math>y</math> stands for.</p>
<p><i>Reason about and solve one-variable equations and inequalities</i></p> <p>6.EE.5: Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p> <p>6.EE.6: Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p>	<p>CT.6.1.3.6: Write, model and solve one-step equations using mental math, tables, substitution and concrete models that demonstrate equivalence and justify the solution.</p> <p>CT.5.1.2.3: Represent and describe mathematical relationships using variables or symbols in expressions, equations and inequalities.</p> <p>CT.5.1.3.6: Model, write and solve one-step equations by using appropriate concrete materials that model equivalence. For examples: If <math>4x \square = 36</math>, then <math>\square</math> equals 9.</p> <p>CT.6.1.2.4: Write expressions, formulas, equations or inequalities using symbols or variables to denote a pattern or represent a contextual situation.</p>
<p>6.EE.7: Solve real-world and mathematical problems by writing and solving equations of the form <math>x + p = q</math> and <math>px = q</math> for cases in which <math>p</math>, <math>q</math> and <math>x</math> are all nonnegative rational numbers.</p>	<p>CT.5.1.2.3: Represent and describe mathematical relationships using variables or symbols in expressions, equations and inequalities.</p> <p>CT.5.1.3.6: Model, write and solve one-step equations by using appropriate concrete materials that model equivalence. For examples: If <math>4x \square = 36</math>, then <math>\square</math> equals 9.</p> <p>CT.6.1.2.4: Write expressions, formulas, equations or inequalities using symbols or variables to denote a pattern or represent a contextual situation.</p>

<p>6.EE.8: Write an inequality of the form <math>x &gt; c</math> or <math>x &lt; c</math> to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form <math>x &gt; c</math> or <math>x &lt; c</math> have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p>	<p>--Write an inequality of the form <math>x &gt; c</math> or <math>x &lt; c</math> to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form <math>x &gt; c</math> or <math>x &lt; c</math> have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p> <p>CT.6.1.2.4: Write expressions, formulas, equations or inequalities using symbols or variables to denote a pattern or represent a contextual situation.</p> <p>CT.7.1.3.8: Solve real-world problems using a variety of algebraic methods including tables, graphs, equations and inequalities.</p>
<p><i>Represent and analyze quantitative relationships between dependent and independent variables</i></p>	
<p>6.EE.9: Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation <math>d = 65t</math> to represent the relationship between distance and time.</p>	<p>CT.5.1.2.4: Describe how a change in one variable relates to a change in a second variable in context. For example: If a recipe requires two cups of flour for eight servings, the flour must be doubled for 16 servings or increased by one-half for 12 servings.</p> <p>CT.6.1.2.2: Create tables of values and scatterplots from mathematical relationships and equations and vice versa to solve problems.</p> <p>CT.7.1.1.2: Identify and describe in writing the independent and dependent variables in a mathematical situation (e.g., age vs. height of children).</p>
<p><b>6.G: Geometry</b></p>	
<p><i>Solve real-world and mathematical problems involving area, surface area, and volume.</i></p>	
<p>6.G.1: Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.</p>	<p>CT.6.3.1.4: Use rectangles as basic shapes to model and develop formulas for finding the area of triangles, parallelograms and trapezoids.</p> <p>CT.6.3.3.8: Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.</p>
<p>6.G.2: Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas <math>V = lwh</math> and <math>v = bh</math> to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.</p>	<p>CT.6.3.2.6: Use and describe concrete strategies for finding the volume of rectangular solids and cylinders.</p> <p>CT.6.3.3.8: Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.</p> <p>CT.7.3.3.9: Develop and use formulas to determine volumes of geometric solids (rectangular prisms and cylinders).</p>
<p>6.G.3: Draw polygons in the coordinate plane given coordinates for the vertices; use coordinate to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply</p>	<p>--Draw polygons in the coordinate plane given coordinates for the vertices; use coordinate to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these</p>

<p>these techniques in the context of solving real-world and mathematical problems.</p>	<p>techniques in the context of solving real-world and mathematical problems.</p>
<p>6.G.4: Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.</p>	<p>CT.7.3.1.3: Draw the result of transformations on polygons on coordinate planes including translations, rotations, reflections and dilations (reductions and enlargements).</p> <p>CT.7.3.2.6: Identify and/or draw two-dimensional representations of three-dimensional geometric solids using nets, cross-sections, front, side and top views to solve problems.</p> <p>CT.7.3.2.7: Use two-dimensional representations of rectangular prisms, pyramids and cylinders to determine surface area.</p>
<p><b>6.SP: Statistics and Probability</b></p> <p><i>Develop understanding of statistical variability</i></p>	
<p>6.SP.1: Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.</p>	<p>--Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.</p> <p>CT.7.4.1: Formulate questions and design studies such as surveys, experiments, and research using published sources and the Internet to collect and analyze data.</p>
<p>6.SP.2: Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.</p>	<p>CT.6.4.2.3: Describe the shape of numerical data sets using measures of spread (range) and central tendency (mean, median, mode) and outliers.</p>
<p>6.SP.3: Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.</p>	<p>--Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.</p>
<p><i>Summarize and describe distributions</i></p>	
<p>6.SP.4: Display numerical data in plots on a number line, including dot plots, histograms, and box plots.</p>	<p>--Display numerical data in plots on a number line, including dot plots, histograms, and box plots.</p>
<p>6.SP.5: Summarize data sets in relation to their context, such as by:</p> <ol style="list-style-type: none"> <li>Reporting the number of observations;</li> <li>Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.</li> <li>Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from</li> </ol>	<p>--Summarize data sets in relation to their context, such as by:</p> <ol style="list-style-type: none"> <li>Reporting the number of observations;</li> <li>Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.</li> <li>Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the</li> </ol>

the overall pattern with reference to the context in which the data were gathered.  
d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

overall pattern with reference to the context in which the data were gathered.  
d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Grade Six Standards for Mathematical Practice

The K-12 Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. This page gives examples of what the practice standards look like at the specified grade level.

**Standards**

**Explanations and Examples**

Students are expected to:

**1. Make sense of problems and persevere in solving them.**

In grade 6, students solve problems involving ratios and rates and discuss how they solved them. Students solve real world problems through the application of algebraic and geometric concepts. Students seek the meaning of a problem and look for efficient ways to represent and solve it. They may check their thinking by asking themselves, "What is the most efficient way to solve the problem?", "Does this make sense?", and "Can I solve the problem in a different way?"

Students are expected to:

**2. Reason abstractly and quantitatively.**

In grade 6, students represent a wide variety of real world contexts through the use of real numbers and variables in mathematical expressions, equations, and inequalities. Students contextualize to understand the meaning of the number or variable as related to the problem and decontextualize to manipulate symbolic representations by applying properties of operations.

Students are expected to:

**3. Construct viable arguments and critique the reasoning of others.**

In grade 6, students construct arguments using verbal or written explanations accompanied by expressions, equations, inequalities, models, and graphs, tables, and other data displays (i.e. box plots, dot plots, histograms, etc.) They further refine their mathematical communication skills through mathematical discussions in which they critically evaluate their own thinking and the thinking of other students. They pose questions like "How did you get that?" "Why is that true?" "Does that always work?" They explain their thinking to others and respond to others' thinking

Students are expected to:

**4. Model with mathematics.**

In grade 6, students model problem situations symbolically, graphically, tabularly, and contextually. Students form expressions, equations, or inequalities from real world contexts and connect symbolic and graphical representations. Students begin to explore covariance and represent two quantities simultaneously. Students use number lines to compare numbers and represent inequalities. They use measures of center and variability and data displays (i.e. box plots and histograms) to draw inferences about and make comparisons between data sets. Students need many opportunities to connect and explain the connections between the different representations. They should be able to use all of these representations as appropriate to a problem context.

Students are expected to:

**5. Use appropriate tools strategically.**

	<p>Students consider available tools (including estimation and technology) when solving a mathematical problem and decide when certain tools might be helpful. For instance, students in grade 6 may decide to represent similar data sets using dot plots with the same scale to visually compare the center and variability of the data. Additionally, students might use physical objects or applets to construct nets and calculate the surface area of three-dimensional figures.</p>
<p>Students are expected to: <b>6. Attend to precision.</b></p>	<p>In grade 6, students continue to refine their mathematical communication skills by using clear and precise language in their discussions with others and in their own reasoning. Students use appropriate terminology when referring to rates, ratios, geometric figures, data displays, and components of expressions, equations or inequalities.</p>
<p>Students are expected to: <b>7. Look for and make use of structure.</b></p>	<p>Students routinely seek patterns or structures to model and solve problems. For instance, students recognize patterns that exist in ratio tables recognizing both the additive and multiplicative properties. Students apply properties to generate equivalent expressions (i.e. <math>6-2x = 3(2 + x)</math> by distributive property) and solve equations (i.e. <math>2c + 3 = 15-2c = 12</math> by subtraction property of equality) by division property of equality). Students compose and decompose two- and three-dimensional figures to solve real world problems involving area and volume</p>
<p>Students are expected to: <b>8. Look for and express regularity in repeated reasoning.</b></p>	<p>In grade 6, students use repeated reasoning to understand algorithms and make generalizations about patterns. During multiple opportunities to solve and model problems, they may notice that <math>a/b + c/d = ad/bc</math> and construct other examples and models that confirm their generalization. Students connect place value and their prior work with operations to understand algorithms to fluently divide multi-digit numbers and perform all operations with multi-digit decimals. Students informally begin to make connections between covariance, rates, and representations showing the relationships between quantities.</p>



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April 19, 2013

Mr. John J. Welch  
Preston Public Schools  
325 Shetucket Turnpike  
Preston, CT 06365

Re: Playground Compliance Inspection

Dear John,

This letter is concerning the playground located at Preston Veterans Memorial School, 325 Shetucket Turnpike Preston, CT. A playground compliance inspection was conducted on the playground equipment on April 15, 2013. The playground compliance inspection was done in accordance with The American Society of Testing and Materials Standards F1487-11 and the U.S Consumer Product Safety Commission Public Playground Safety Handbook. The following are the results of the inspection:

1. The playground consists of Kompan/Big Toys manufactured equipment. There is a large wooden composite structure, a freestanding play panel, a freestanding balance beam, and a 2 bay swing set. The equipment was researched and was found to be IPEMA certified. It therefore met the requirements of the ASTM F1487-11.
2. The surfacing consisted of engineered wood fiber. The depth was measured and found to be 7-12 inches around the composite structure, play panel, and balance beam which is considered a **CLASS B HAZARD** where the depth is 7-9 inches. The depth of the surfacing under the swing set was found to be a depth of 3-12 inches which is considered to be a **CLASS A HAZARD** where the depth is 3-9". Installing additional wood fiber to the existing material, raking and leveling it, will eliminate these hazardous conditions.
3. The wood of the wooden composite structure is deteriorating. There were 4 rotting support posts found and the decks and stairs contain badly cracking and splintering wood. The support post by one of the chin up bars is so loose it should be taken out of service. The rotting posts are a **CLASS A HAZARD**.
4. The web bridge on the composite structure has worn cables and loose connectors. The loose connectors are gouging into the wood and damaging the decks. This is a **MAINTENANCE ISSUE**.
5. There are 2 wear mats that are not set correctly in the surfacing which are creating a trip hazard. This is a **CLASS B HAZARD**. The mats should be set level with the wood fiber to eliminate this hazard.



6. The swing set contains worn mounts, swing chain, and seats. This is considered a **CLASS A HAZARD**. The seats and hardware should be scheduled for replacement.
7. The freestanding play panel has broken plastic pieces on its face. These pieces should be replaced. This is a **MAINTENANCE ISSUE**.

In conclusion the playground is in overall fair condition. However, the condition of the wood is poor with some rotting support posts. The cost of replacing all of the needed wood planks, handrails and support posts would be so costly, it is recommended that plans be put in place to replace the existing equipment with new compliant playground equipment.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Reed", written over a faint, larger version of the signature.

Jeffrey J. Reed  
Executive Vice President  
NPSI Certification # 20825-1015  
Expiration 10/1/2015

**Overhead Rings-Worn & Rusted Chains-CLASS A HAZARD**



**Rotted Support Posts-CLASS A HAZARD**



**Rotted Support Posts-CLASS A HAZARD**



**Damaged Web Bridge-MAINTENANCE**



**Cracked and Splintering Wood-MAINTENANCE**



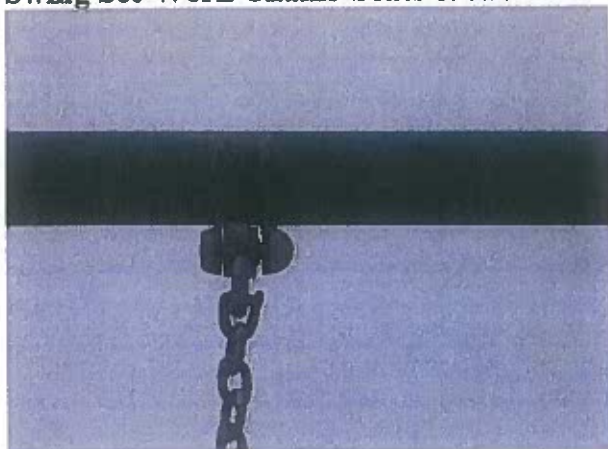
**Cracked and Splintering Wood-MAINTENANCE**



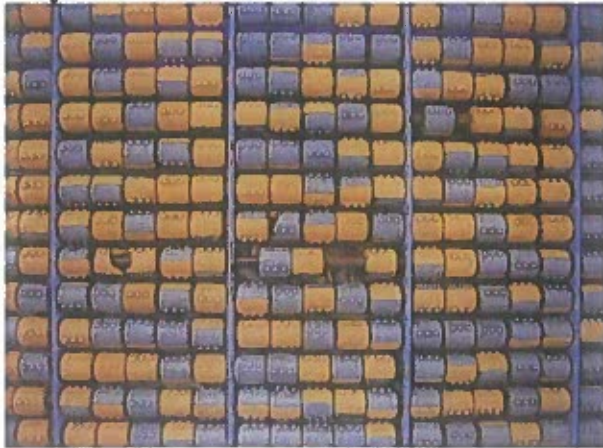
**Swing Set-Worn Chains-Seats & Hardware-CLASS A HAZARD**



**Swing Set-Worn Chains-Seats & Hardware-CLASS A HAZARD**



**Play Panel- Broken Pieces-MAINTENANCE**



**Wear Mats-Tripping Hazard-CLASS B HAZARD**



# Preston Board of Education

## Policies, Regulations, and Bylaws

1131.3

### **Community Relations**

#### **Resident Parking**

##### **Resident Parking Privileges**

Licensed drivers who are residents of Preston may be allowed parking privileges in a designated area of either school's parking lot, Sunday – Saturday during daylight hours only with the expressed permission of Preston Public Schools. Overnight parking is prohibited.

All residents who wish to park on school property must complete an application resulting in the issuance of a parking permit. All requests for parking privileges must be accompanied by proof of proper licensing and resident status.

The only automobiles allowed to park on school grounds in the area designated for residents will be those that have been issued permits by the administration. Permits will be valid only for the car that it is assigned to and will be for the calendar year only. Any resident abusing his/her permit privileges will have the permit revoked.

Any vehicle discovered in either school's parking lot without a permit will be towed away at the owner's expense. The Board of Education reserves the right to determine the number of resident vehicles that may be parked in either school's parking lot.

##### **Revocation of Permits**

1. Driving at an excessive speed on the school grounds.
2. Reckless or dangerous driving on the school grounds.
3. Failure to park in the area designated for residents.

Legal Reference: Connecticut General Statutes  
10-221 Boards of education to prescribe rules.

Policy Approved:

**Preston Board of Education**  
**Policies, Regulations, and Bylaws**

4000

## **Personnel Certified and Non-Certified**

### **Concepts and Roles in Personnel**

The school system exists for the educational development of the students. To this end, the development of personnel policies for certified and non-certified staff is an essential component of Preston's educational program.

Through its personnel policies, the Board of Education will help establish a school environment to attract and maintain the best-qualified and thereby help provide the best possible student learning environment. The goals of these policies are:

- A. To recruit, select and employ the best qualified personnel to staff the district's schools.
- B. To provide staff compensation and benefits sufficient to attract and retain the district's employees.
- C. To provide an in-service training program to improve performance.
- D. To provide for an evaluation program that will contribute to the continuous improvement of staff personnel.
- E. To assign personnel to ensure that they are used as effectively as possible.

Except as noted below, the Superintendent is authorized to hire certified and non-certified staff for positions authorized by the Board; additions or deletions of staff positions must be specifically voted upon by the Board; provided, however, that the Superintendent may hire special education certified and non-certified staff pursuant to the requirements of a student's IEP. With the exception of daily substitute teachers, any temporary hires, including those arranged through a staffing agency, must be explicitly approved by the Board. Approval must include pay rate, number of weekly hours, duties, and number of weeks on staff.

Certain staff positions, due to their administrative and managerial importance are subject to Board approval. These positions include: the Director of Special Education, Principals, Business Manager, Board Secretary, and Supervisor of Buildings and Grounds. New appointees or promotions to these positions shall be recommended by the Superintendent to the Board for final approval. Approval shall be by vote of the Board; provided, however, that pursuant to Conn. Gen. Statute 10-151, the board may not appoint any individual to an administrative position who has not been expressly recommended for appointment by the Superintendent.

The Superintendent shall produce a report for the October Board meeting and for budgeting purposes (February/March) showing all authorized positions, personnel in said positions, vacancies, salaries, and percentage of full time for each position. For teaching personnel, the report shall also show grades/subjects taught and number of students in each class.

Wages and salaries for non-affiliated personnel shall be recommended by the Superintendent for final approval by the Board. Adjustments to such salaries will normally occur at the first meeting of the Board following final approval by the Town of the annual education budget.

Legal Reference: **Connecticut General Statutes**  
[10-220](#) Duties of boards of education

**Policy adopted: 7/19/10**

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**PRESTON PUBLIC SCHOOLS**  
**Office of the Superintendent of Schools**  
**325 Shetucket Turnpike**  
**Preston, Connecticut 06365-8631**

**John J. Welch, Ed.D.**  
*Superintendent of Schools*  
*welchj@prestonschools.org*

**(860) 889-6098**  
**FAX (860) 889-8685**

June 14, 2013

To: Chairperson and Members of the Preston Board of Education

From: John J. Welch, Ed. D. 

Re: Superintendent's Goals 2012-2013 (#15)

Reference is made to Goal #15 included within the above-captioned document as follows:

To research a representative sampling of K-8 districts relative to the composition of their management team by type (Superintendent, Principal, other administrators), full time equivalency (FTE) status student population and number of school buildings comprising each district and report those findings to the board.

Based upon my research, please note the following:



- 1) Statewide, there are 22 PK-8 districts comprising 27 communities
- 2) Among the 22 PK-8 superintendents, 11 serve part-time. The typical although not exclusive FTE status of those personnel is .40 (two days)
- 3) Among the 22 PK-8 districts, one district is represented by a superintendent-principal. The current student population of 185 students is housed in one building
- 4) Student Enrollment among the 22 PK-8 districts is as follows:  
Range: 78-3923  
Mean: 712  
Median: 487
- 5) Salary among the 22 PK-8 districts is as follows:  
Range: 36,010-170,000  
Mean: 108,733  
Median: 87,328

(Statewide, salaries range from \$100,000 to \$285,000 for full-time superintendents and from \$36,000 to \$95,000 for part-time superintendents.



Among all CT superintendents the average salary is approximately \$164,000 per year).

- 6) Among the 22 PK-8 superintendents, 17 responded to an electronic survey, results attached.

**1. How many school buildings comprise your district?**

		Response Percent	Response Count
One		58.8%	10
Two		29.4%	5
Three or More		11.8%	2
<b>answered question</b>			<b>17</b>
<b>skipped question</b>			<b>0</b>

**2. Is Central Office located in a school?**

		Response Percent	Response Count
Yes		64.7%	11
No		35.3%	6
<b>Comment:</b>			<b>2</b>
<b>answered question</b>			<b>17</b>
<b>skipped question</b>			<b>0</b>





### 3. PK-8 October 1, 2012 Enrollment:

		Response Percent	Response Count
Under 100		5.9%	1
Between 100 - 299		23.5%	4
Between 300 - 499		47.1%	8
Between 500 - 699		0.0%	0
700 or more		23.5%	4
<b>answered question</b>			<b>17</b>
<b>skipped question</b>			<b>0</b>

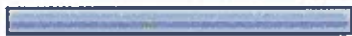




### 4. Our Student Enrollment is:

		Response Percent	Response Count
Declining		50.0%	8
Increasing		0.0%	0
Remaining about the same		50.0%	8
<b>answered question</b>			<b>16</b>
<b>skipped question</b>			<b>1</b>




### 5. Superintendent's FTE Status:

		Response Percent	Response Count
Five Days		40.0%	6
Four Days		0.0%	0
Three Days		6.7%	1
Two Days		46.7%	7
One Day		6.7%	1
<b>answered question</b>			<b>15</b>
<b>skipped question</b>			<b>2</b>


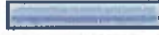

### 6. Special Education Director's FTE Status:

		Response Percent	Response Count
Five Days		53.3%	8
Four Days		6.7%	1
Three Days		6.7%	1
Two Days		20.0%	3
One Day		13.3%	2
<b>Comment:</b>			<b>2</b>
<b>answered question</b>			<b>15</b>
<b>skipped question</b>			<b>2</b>

### 7. Number of Principals:

		Response Percent	Response Count
One		58.8%	10
Two		29.4%	5
Three or More		11.8%	2
	Comment:		0
	<b>answered question</b>		<b>17</b>
	<b>skipped question</b>		<b>0</b>

### 8. Number of Vice-Principals

		Response Percent	Response Count
None		70.6%	12
One		23.5%	4
Two		5.9%	1
Three or More		0.0%	0
	Comment:		2
	<b>answered question</b>		<b>17</b>
	<b>skipped question</b>		<b>0</b>

**Q2. Is Central Office located in a school?**

- |   |  |                      |
|---|--|----------------------|
| 1 | Town Hall  | May 15, 2013 2:39 PM |
| 2 | RE Question #5 of survey: The Superintendent FTE for Sherman is 1.5 days, but that option was not available for Question #5, so I am noting it here. | May 10, 2013 7:55 PM |

**Q6. Special Education Director's FTE Status:**

- |   |  |                      |
|---|--|----------------------|
| 1 | We belong to a shared services group of 5 districts                            | May 15, 2013 2:39 PM |
| 2 | The SPED director is a .5 FTE. So, the position is more accurately a 2.5 FTE . | May 2, 2013 9:24 PM  |

**Q8. Number of Vice-Principals**

- |   |  |                      |
|---|--|----------------------|
| 1 | Would like a part-time teaching VP.          | May 7, 2013 10:47 AM |
| 2 | Two M/S A/Ps. Elementarys have teaching A/Ps | May 2, 2013 9:45 PM  |

**5131.81****Students****Use of Beeper (Paging Devices)/Cellular Telephones**

Pursuant to Public Act No. 96-108, No Preston Public School student may possess or use a remotely activated paging device unless such student obtains the written permission of the Principal for such possession or use.

It shall be incumbent upon the student or his parent to establish to the Principal's satisfaction that a reasonable basis exists for the possession and use of such device.

**Use of Cellular Telephones**

In the discretion of the Principal, students may possess and use a cellular mobile telephone while on school property, on school transportation or while attending a school sponsored activity on or off school property.

The Principal may, however, prohibit temporarily or permanently student possession of a cellular mobile telephone if he or she believes that a pattern of misuse exists that is disruptive of the educational process. In such cases, the student's parent or guardian will be contacted by the Principal.

Legal Reference: PA 96-108 An Act Concerning Student Use of Telecommunication Devices and the Establishment of Graduation Dates

**Policy adopted: 7/14/08**

**\*\*\*2<sup>nd</sup> Revised\*\*\***  
**PPMS Awareness Day**  
**Friday, May 17<sup>th</sup>**  
**Presenter Locations**

Presenters will each lunch in the library

Classroom teachers stay with presenters for the three sessions. Coverage for classrooms without teachers is as follows:

- Safe Futures (Room 201) – Louise Serra
- Fly Away (Room 204) – Lori Popinchalk
- Smelling Like Roses (Room 100) – no coverage
- Bullying – Sticks & Stones (Room 104) – no coverage
- Fuel Your Engines (Room 106) – floating coverage
- Smoking Stinks (Room 107) – floating coverage

**First Floor:**

- NFA Cyberbullying Assembly – Gym
- Smelling Like Roses (C. McNeil) – Room 100
- Marine Scientist (Mystic Aquarium) – Room 101
- Individual Learning Styles (B. Serra) – Room 103
- Bullying – Sticks & Stones (CT State Trooper) – Room 104
- Fuel Your Engines (Backus Hospital; Marybeth Green) – Room 106
- Smoking Stinks (Backus Hospital; Annette McDonald) – Room 107

**Second Floor:**

- Coping (Safe Futures; Ann Werneau) – Room 201
- Narcotics Anonymous – Room 202
- Fact or Fiction (NFA; Mr. Sheldon & Mr. Fecteau) – Room 203
- Fly Away (NFA; Shannon Andros) – Room 204
- Conflict Resolution (NFA; Mr. Perry) – Room 205
- Environmental Issues (Project O; Lauren Rader) – Room 206
- Pressure to be Perfect (NFA; Project Outreach) – Room 207
- Healthy Relationships (NFA; Jodi Vara) – Room 208

**Pressure To Be Perfect** - students will work with the NFA group Students Against Destructive Decisions and learn an effective way to deal with the pressures of everyday life pushing them to be perfect.

**Healthy Relationships** - students will work with NFA students from the Friends of Rachel club and Project Outreach to discover what a positive mental attitude is and how to foster it every day. Students will learn how our decisions in life help make us who we are.

### **Bullying – Sticks and Stones**

Do you know how alcohol and marijuana effect your brain and development? Join this workshop to learn about the dangers you may not have known before. Work with your peers and create posters that will help prevent alcohol and marijuana use!

### **Smoking Stinks**

Do you know what a cigarette does to your lungs? What about your brain, lips and the rest of your body? Well come find out, it's GROSS!

### **Fuel Your Engines**

We aren't talking about cars here, we are talking about bodies and what it takes to get you going and keep you going. See how food choices effect your body.

### **Environmental Issues**

Come explore with Project Oceanology the importance of protecting the environment.

### **NFA: Fact or Fiction**

What can you expect at NFA? Come find out for yourself. A panel of NFA administrators, guidance counselors and campus safety officers will talk about what NFA is really like. Come with all your questions and get ready to learn the truth behind some of NFA's best kept secrets.

### **Narcotics Anonymous**

Come and hear stories from recovering addicts, their stories and the decisions they made will amaze and move you. This is an intense workshop.

## **Safe Seating**

You will learn car safety, your driving years are not too far away!

## **Individual Learning Style**

Do you learn best by hearing someone explain it? Would you rather figure something out by picking it up or touching it? Or do you learn the most from reading about something? Come figure out how you learn best, and what strategies might work best for you.

## **Conflict Resolution**

Learn effective ways to solve problems with friends, family.....

## **Fly Away**

What is it like to travel as a student? What is the cultural importance, come and find out.

## **Smelling Like Roses**

A bar of soap, wash cloth, shampoo, deodorant, do these sound familiar? Come learn the basics about hygiene plus lots more.

## **Coping**

Learning to deal with anxiety and depression.

## **Marine Scientist**

Learn what it is like to be a marine scientist with Mystic Aquarium.



**PRESTON PUBLIC SCHOOLS**  
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860-889-6098  
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May 23, 2013

John Welch, Superintendent of Schools  
Bob Congdon, First Selectman  
325 Shetucket Turnpike  
Preston, CT 06365

Dear John and Bob:

After much thought and consideration I have decided to resign from my position as the Direction of Finance and School Business Operations for the Town of Preston, effective June 30, 2013. I have enjoyed my time in Preston and thank you both for providing me with the opportunity to work with many wonderful and talented individuals.

I will assist you in any way that I can in the interim to assure a smooth transition.

Once again, I thank you and wish you well.

Sincerely,

A handwritten signature in black ink, appearing to read "B Sirpenski".

Bob Sirpenski

CC: Jan Clancy, Chairperson, Preston Board of Education  
Jerry Grabarek, Chairman, Preston Board of Finance