



## Ohio School Boards Association Capital Conference and Trade Show

November 13 – 16, 2011

Greater Columbus Convention Center  
Columbus, Ohio

# Power standards lead to blue ribbon success

### Instruction

Tuesday, November 15, 2011

9:00 a.m.

C 111

Roger Knight, principal, Clear Fork Valley Local (Richland)

Jerry Julian, gifted and talented director, Clear Fork Valley Local (Richland)

#### Customized Workshops

OSBA works with you to provide customized workshops.

Leadership starts with skilled and well-informed school board members and administrators. OSBA customized workshops are:

- Designed specifically to meet the needs of the district and scheduled at convenient times for the board.
- Focuses on building a stronger management team and resolving conflict.
- Develops board and district goals and effective evaluation procedures.

For more information contact Kathy LaSota at (614) 540-4000 or (800) 589-OSBA.

Please complete an online conference evaluation either during or after the event at:

<http://links.ohioschoolboards.org/CC11Evaluation>

#### OSBA Mission

*OSBA leads the way to educational excellence by serving Ohio's public school board members and the diverse districts they represent through superior service and creative solutions.*

#### Ohio School Boards Association

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[www.osba-ohio.org](http://www.osba-ohio.org)

Roger Knight, principal at Butler Elementary, Clear Fork Local Schools, and Jerry Julian, a gifted/talented supervisor have teamed up to present a program that specifically spells out the procedures that need to be in place in order to achieve quality results related to instruction.

Roger will present the logistical procedures that are necessary in order to lay the groundwork while Jerry will spell out how the curriculum is impacted, especially as it relates to mathematics, an area that Butler Elementary has selected to emphasize since it carries all other subjects when one considers the development of critical thinking skills, logic, organization, and problem solving.

Butler Elementary, a K-5 building with 360 students and 57% of its students economically disadvantaged had never passed a 4<sup>th</sup> grade math test prior to the 2005-2006 school year. Since then the scores have ranged from 88.7% to 98%. The fifth grade has also performed well, passing the math test each of the last five years.

Roger and Jerry believe that their simplistic formula can be replicated in any district.

**OAA Comparisons**

**Grades 3,4,5**

**2011**

**Ashland, Crawford, Huron, Knox, Morrow and Richland Counties**

Ohio Achievement Tests - Preliminary Results

Grade 3 Reading

Fredericktown	94.3
<b>Butler</b>	<b>94.2</b>
Lexington	93.3
Cardington-Lincoln	93.2
Highland	92.5
<b>Clear Fork</b>	<b>92.0</b>
Centerburg	91.8
East Knox	90.2
Western Reserve	90.1
<b>Belleville</b>	<b>89.5</b>
Plymouth	89.3
Danville	89.1
Lucas	88.9
Shelby	88.6
Bellevue	88.4
Mapleton	87.9
Ashland City	87.3
Hillsdale	87.0
Wynford	86.8
Crestview	85.7
Loudonville/Perryville	85.0
Mount Vernon	84.7
Buckeye Central	83.9
South Central	83.6
Monroeville	82.5
Ontario	81.8
Willard	81.4
Gallion	80.1
Colonel Crawford	79.4
Northmor	79.3
New London	79.2
Norwalk	78.7
Mount Gilead	77.9
Madison	77.2
Bucyrus	72.9
Mansfield	72.2
Crestline	66.1

Grade 3 Math

Fredericktown	96.5
<b>Butler</b>	<b>96.2</b>
East Knox	96.1
<b>Clear Fork</b>	<b>95.6</b>
Lexington	95.4
Cardington-Lincoln	94.5
<b>Belleville</b>	<b>93.0</b>
Western Reserve	92.6
Bellevue	90.8
Shelby	90.2
Mapleton	90.1
Hillsdale	89.5
Buckeye Central	89.3
Wynford	88.2
Ashland City	87.7
Highland	86.4
Mount Vernon	86.2
Plymouth-Shiloh	85.7
Ontario	85.7
Centerburg	85.6
Danville	85.5
South Central	85.3
New London	85.2
Willard	83.7
Norwalk	83.6
Gallion	83.1
Bucyrus	82.9
Madison	81.8
Crestview	81.6
Monroeville	80.0
Loudonville/Perryville	77.1
Mount Gilead	76.8
Lucas	75.0
Mansfield	74.0
Northmor	69.8
Colonel Crawford	68.3
Crestline	66.1

Ohio Achievement Tests - Preliminary Results

Grade 4 Reading

South Central	100.0
Hillsdale	97.8
Fredericktown	96.6
Centerburg	94.9
Crestview	94.7
Colonel Crawford	94.4
Ontario	93.7
Lexington	92.9
Highland	92.7
Ashland	91.7
Loudonville-Perrysville	91.6
Mount Gilead	91.5
Western Reserve	89.8
Cardington-Lincoln	89.7
<b>Clear Fork</b>	<b>89.7</b>
Shelby	89.4
East Knox	89.0
Norwalk	88.8
Buckeye Central	88.6
Plymouth-Shiloh	88.3
<b>Butler</b>	<b>88.2</b>
<b>Belleville</b>	<b>88.0</b>
Darville	87.0
New London	86.7
Lucas	86.5
Willard	86.4
Northmor	86.1
Wynford	85.9
Mount Vernon	85.9
Bellevue	84.4
Gallon	82.6
Monroeville	82.5
Mapleton	81.8
Madison	80.8
Bucyrus	77.9
Mansfield	73.4
Crestline	70.2

Grade 4 Math

South Central	97.9
Fredericktown	93.2
Crestview	92.6
Hillsdale	90.2
Mount Gilead	89.4
Centerburg	88.6
Lucas	88.5
<b>Butler</b>	<b>88.2</b>
Darville	87.0
Loudonville	86.3
<b>Clear Fork</b>	<b>86.2</b>
Lexington	86.1
Ontario	85.7
Highland	85.2
Colonel Crawford	84.5
Mount Vernon	83.4
Ashland	83.0
<b>Belleville</b>	<b>82.6</b>
Norwalk	82.4
Northmor	82.3
Shelby	82.3
Western Reserve	80.6
Cardington-Lincoln	80.5
Bellevue	80.4
Mapleton	80.0
Buckeye Central	80.0
Madison	79.4
Gallon	79.2
Wynford	78.8
Bucyrus	75.0
Plymouth-Shiloh	74.0
New London	73.3
East Knox	72.2
Willard	72.0
Monroeville	70.0
Mansfield	64.0
Crestline	57.9

# Ohio Achievement Tests - Preliminary Results

Grade 5 Reading		Grade 5 Math		Grade 5 Science	
Monroeville	93.8	Loundonville-Perrysville	85.4	South Central	97.1
<b>Belleville</b>	<b>88.7</b>	<b>Butler</b>	<b>83.1</b>	New London	92.5
Lucas	88.6	<b>Clear Fork</b>	<b>80.6</b>	Centerburg	92.1
<b>Butler</b>	<b>87.7</b>	<b>Belleville</b>	<b>80.6</b>	<b>Belleville</b>	<b>90.3</b>
<b>Clear Fork</b>	<b>87.6</b>	Crestview	80.4	Lexington	88.5
Ontario	86.7	Lexington	79.7	Ontario	88.3
Crestview	86.3	Mapleton	78.3	Crestview	87.3
Lexington	85.9	Ontario	76.6	Fredericktown	86.1
Centerburg	85.5	Mount Vernon	73.6	Wynford	85.3
Northmor	85.1	Plymouth-Shiloh	73.5	Plymouth-Shiloh	85.3
Willard	83.1	Cardington-Lincoln	72.3	<b>Clear Fork</b>	<b>84.5</b>
Cardington-Lincoln	83.0	Ashland	71.2	Mapleton	84.1
Hillsdale	82.6	Bellevue	71.1	Monroeville	83.3
Fredericktown	82.2	Hillsdale	70.9	Northmor	81.8
Highland	81.8	Centerburg	69.7	<b>Butler</b>	<b>81.5</b>
Wynford	81.3	Willard	69.4	Highland	81.0
Bellevue	80.3	New London	68.8	Loundonville-Perrysville	80.2
Mapleton	79.7	East Knox	68.0	Mount Vernon	78.1
Darville	78.9	Monroeville	66.7	Western Reserve	77.7
Crestline	78.6	Western Reserve	66.7	East Knox	77.3
Mount Vernon	77.4	Mount Gilead	66.7	Willard	77.2
Plymouth-Shiloh	76.5	Norwalk	66.3	Cardington-Lincoln	76.6
Norwalk	75.9	Fredericktown	66.3	Bellevue	76.3
Shelby	75.9	Shelby	65.7	Norwalk	74.3
East Knox	75.3	Highland	65.0	Hillsdale	73.3
New London	75.0	Madison	64.9	Bucyrus	72.6
Western Reserve	74.5	Buckeye Central	61.4	Shelby	72.3
South Central	73.9	Wynford	61.3	Ashland	71.5
Ashland	73.8	Northmor	61.2	Crestline	71.4
Loundonville-Perrysville	72.6	Crestline	60.7	Buckeye Central	68.4
Bucyrus	70.9	Darville	60.4	Madison	68.2
Madison	68.7	Lucas	56.8	Mount Gilead	67.7
Galion	68.4	Bucyrus	54.4	Lucas	63.6
Mount Gilead	67.7	Galion	52.9	Darville	62.3
Buckeye Central	64.9	South Central	49.3	Colonel Crawford	57.6
Colonel Crawford	62.1	Colonel Crawford	48.5	Galion	55.2
Mansfield	53.8	Mansfield	32.7	Mansfield	38.6

BUTLER ELEMENTARY TESTING DATA 2011

Test Score History 75% Required

THIRD GRADE

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
M		77.2	85.5	96.5	89.1	93.3	90.7	96.2
R	80.4	78.9	87.3	87.7	90.9	91.7	87.0	94.2

FOURTH GRADE

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
M	32.5	36.4	40.0	40.3	55.4	61.1	62.9	37.0
R	47.5	72.1	50.0	62.9	75.4	53.7	71.0	70.4
W	40.0	72.7	57.8	64.5	92.3	81.5	85.9	79.6
C	60.0	68.2	56.9	72.6	84.6	64.8	59.7	61.1
S	30.0	50.0	51.7	50.0	58.5	53.7	64.5	68.5

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
M	53.3	41.4	88.7	98.0	94.5	96.4	93.8	88.2
R	53.3	70.7	83.0	92.2	92.7	98.2	93.8	88.2
W	63.3	63.8	96.2	98.0	96.4	94.6		
C	43.3	46.6						
S	51.7	37.9						

FIFTH GRADE

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
R	78.3	84.0	82.4	92.3	85.5	91.5	87.7
M		69.0	88.2	92.3	80.6	89.8	83.1
S			78.4	78.8	85.5	93.2	81.5
SS			72.5	90.4	82.3		

**IEP Percentages**

	2006/07	2007/08	2008/09	2009/10	2010/11
Third	5.26	8.92	9.83	22.22	9.61
Fourth	20.37	5.26	8.7	17.74	26.53
Fifth	12.96	25.49	3.1	12.0	15.62

**Percentage Proficient or Above: IEP, Reading Recovery; Title I**

**THIRD GRADE**

	Reading	Math
IEP (5)	4/5 80%	4/5 80%
RR (8)	6/8 75%	7/8 87.50%
Title I (9)	8/9 88.80%	9/9 100%

**FOURTH GRADE**

	Reading	Math
IEP (9)	8/9 88.80%	9/9 100%
RR (5)	4/5 80%	5/5 100%
Title I (9)	8/9 88.80%	9/9 100%

**FIFTH GRADE**

	Reading	Math	Science
IEP (8)	3/8 37.50%	3/8 37.5%	4/8 50%
RR (9)	8/9 88.8%	9/9 100%	8/9 88.8%
Title I (8)	7/8 87.50%	8/8 100%	8/8 100%



Ohio Achievement Tests - Butler/State Comparison 2010/11

THIRD GRADE

	<u>Butler</u>	<u>State</u>	<u>Gain/Loss</u>
Reading	94.2	80.0	+14.2
Math	96.2	82.0	+14.2

FOURTH GRADE

	<u>Butler</u>	<u>State</u>	<u>Gain/Loss</u>
Reading	88.2	84.0	+4.2
Math	88.2	79.0	+9.2

FIFTH GRADE

	<u>Butler</u>	<u>State</u>	<u>Gain/Loss</u>
Reading	87.7	74.0	+13.7
Math	83.1	66.0	+17.1
Science	81.5	71.0	+10.5

## Setting the Stage for Success

The following represent the immediate positive outcomes that have been realized at Butler Elementary School.

- NO a.m. and p.m. announcements. Teachers begin the day and end the day.
- Common planning time for teachers 7:45 a.m. – 8:00 a.m. before students arrive in classrooms
- Reduced lunch period from 60 minutes to 35 minutes
- Implemented a Principal's noon study session for referred students in grades 3, 4, and 5 11:35 a.m. to 12:40 p.m.
- Teachers' meetings once per month not to exceed 30 minutes – celebrations of success
- Do not collect lesson plans
- Principal mini conferences with students-grade cards
- Intervention – after school – math, no reading
- Reading Recovery – a huge, necessary component
- Special Education – most receive same academic presentations as regular ed with support
- Mutual respect and love demonstrated among staff, students and community members

Nov. 8

24

(4/9)

Madison exponent: ( )

$9+5=14$	<del><math>7 \times 5=35</math></del>	$7 \times 5=35$	$(7 \times 5)-9=26$	$(7 \times 5)-9=26$
$14 \div 7=2$	$35-9=26$	$35-9=26$	$26-2=24$	$26-2=24$
$2 \times 2=4$	$26-2=24$	$26-2=24$	$7 \times 5=35$	$7 \times 5=35$
$4!=24$	$(7 \times 5)-9-2=24$	$(7 \times 5)-9-2=24$	$35-2=33$	$35-2=33$
$(9+5) \div 7=2$	$(7 \times 5)-2=33$	$(7 \times 5)-2=33$	$33-9=24$	$33-9=24$
$2 \times 2=4$	$33-9=24$	$33-9=24$	$5-2=3$	$5-2=3$
$4!=24$	$(7 \times 5)-2-9=24$	$(7 \times 5)-2-9=24$	$9 \div 3=3$	$9 \div 3=3$
$(9+5) \div 7=2$	$9 \div (5-2)=3$	$9 \div (5-2)=3$	$5-2=3$	$7-3=4$
$2 \times 2=4$	$7-3=4$	$7-3=4$	$7-(9-3)=4$	$4!=24$
$4!=24$	$4!=24$	$4!=24$	$4!=24$	$7+5=12$
$(9+5) \div 7=2$	$5+2=3$	$5-2=3$	$7+5=12$	$3!-2=4$
$2 \times 2=4$	$9-3=3$	$7-(9-3)=4$	$2-9=3$	$4!=24$
$4!=24$	$7-3=4$	$4!=24$	$3!-2=4$	$(7+5) \div 9=9$
$(9+5) \div 7=2$	$4!=24$	$(7+5)-9=3$	$4!=24$	$\sqrt{9!}-2=4$
$2+2=4$	$7+5=12$	$3!-2=4$	$7+5=12$	$4!=24$
$4!=24$	$12-\sqrt{9}=9$	$4!=24$	$12-\sqrt{9}=9$	$7+5-(\sqrt{9})=9$
$(9+5) \div 7=2$	$\sqrt{9}=3$	$7+5=12$	$\sqrt{9!}=2! \times 4$	$\sqrt{9!}-2=4$
$2 \times 2=4$	$3!=6$	$12-\sqrt{9}=9$	$4!=24$	$4!=24$
$4!=24$	$6-2=4$	$\sqrt{9!}-2=4$	$7+5-(\sqrt{9})=9$	$7+5-(\sqrt{9})=9$
$(9+5) \div 7=2$	$9 \times 5=15$	$4!=24$	$\sqrt{9!}=6$	$\sqrt{9!}=6$
$2 \times 2=4$	$15-7=8$	$\sqrt{9 \times 5}=15$	$6-2=4$	$6-2=4$
$4!=24$	$8 \div 2=4$	$15-7=8$	$4!=24$	$4!=24$
$9+5=14$	$4!=24$	$8 \div 2=4$	$(9 \times 5)-7=8$	$\sqrt{9}=3$
$(4 \div 7) \times 2=4$	$(\sqrt{9}) \times 5=15$	$4!=24$	$8 \div 2=4$	$3 \times 5=15$
$4!=24$	$15-7=8$	$(\sqrt{9 \times 5})-7=8$	$4!=24$	$5-7=8$
$9+5=14$	$8 \div 2=4$	$8 \div 2=4$	$(\sqrt{9} \times 5)=15$	$8 \div 2=4$
$(14 \div 7) \times 2=4$	$4!=24$	$4!=24$	$15-7=8$	$4!=24$
$4!=24$	$9+5=14$	$9+5=14$	$8 \div 2=4$	$9+5=14$
$9+5=14$	$4 \div 7=2$	$14 \div 7=2$	$4!=24$	$4 \div 7=2$
$14 \div 7=2$	$2+7=9$	$2!+2=4$	$9+5=14$	$2 \times 2=4$
$4!=24$	$4!=24$	$4!=24$	$14 \div 7=2$	$4!=24$
			$2!+2=4$	$4!=24$
			$4!=24$	

Nov. 8 / 24

$$\left(\frac{2+5}{2+9}\right) + -k \div \sqrt{\text{exponent}}!$$

exponent! ( )

# Madison

$(7+5) \div (9) = 2$	$9+5=14$	$9+5=14$	$9+5=14$	$9+5=14$		
$2 \times 2 = 4$	$(14 \div 7) \times 2! = 4$	$14 \div 7 = 2$	$14 \div 7 = 2$	$14 \div 7 = 2$	$14 \div 7 = 2$	
$4! = 24$	$4! = 24$	$(2+2)! = 24$	$(2!+7)! = 24$	$(2!+2!) = 24$	$(2!+2!) = 24$	
$(7+5) \div (9) = 2$	$9+5=14$	$9+5=14$	$9+5=14$	$7+5=12$	$7+5=12$	
$2! \times 2 = 4$	$14 \div 7 = 2$	$14 \div 7 = 2$	$14 \div 7 = 2$	$12-9=3$	$12-9=3$	
$4! = 24$	$(2 \times 2)! = 24$	$(2! \times 2!) = 24$	$(2! \times 2!) = 24$	$3 \times 2 = 4$	$3! \times 2 = 4$	
$(7+5) \div (9) = 2$	$(7+5) - 9 = 3$	$(7+5) - 9 = 3$	$7+5=12$	$4! = 24$	$4! = 24$	
$2! \times 2! = 4$	$3 \times 2 = 4$	$3 \times 2 = 4$	$12-9=3$	$7+5=12$	$7+5=12$	
$4! = 24$	$4! = 24$	$4! = 24$	$(3! \times 2!) = 24$	$12-9=3$		
$7+5 = (9) = 2$	$7+5=12$	$7+5=12$	$7+5=12$	$(3! \times 2!) = 24$		
$2 \times 2 = 4$	$(12-9) \times 2 = 4$	$(12-9) \times 2 = 4$	$12 - (9-9) = 4$	$7+5=12$		
$4! = 24$	$4! = 24$	$4! = 24$	$4! = 24$	$12 - (9-2!) = 4$		
$7+5 = (9) = 2$	$7+5=12$	$7+5=12$	$7+5=12$	$7+5=12$	$4! = 24$	
$2! + 2 = 4$	$12 - \sqrt{9} = 9$	$12 - \sqrt{9} = 9$	$12 - \sqrt{9} = 9$	$12 - \sqrt{9} = 9$	$7+5=12$	$7+5=12$
$4! = 24$	$\sqrt{9!} - 2 = 4$	$\sqrt{9!} - 2! = 4$	$\sqrt{9} = 3$	$\sqrt{9} = 3$	$12 - \sqrt{9} = 9$	$12 - \sqrt{9} = 9$
$7+5 = (9) = 2$	$4! = 24$	$4! = 24$	$3! - 2 = 4$	$3! = 24$	$\sqrt{9!} = 6$	$\sqrt{9!} = 6$
$2! \times 2! = 4$	$7+5=12$	$7+5=12$	$4! = 24$	$4! = 24$	$6-2=4$	$6-2! = 4$
$4! = 24$	$\sqrt{9} = 3$	$\sqrt{9} = 3$	$7+5=12$	$7+5=12$	$4! = 24$	$4! = 24$
$7+5 = (9) = 2$	$12-3=9$	$12-3=9$	$\sqrt{9} = 3$	$\sqrt{9} = 3$	$7+5=12$	
$2 \times 2 = 4$	$\sqrt{9!} - 2 = 4$	$\sqrt{9!} - 2 = 4$	$12-3=9$	$12-3=9$	$12 - \sqrt{9!} = 6$	
$4! = 24$	$4! = 24$	$4! = 24$	$\sqrt{9!} = 6$	$\sqrt{9} = 6$	$6-2=4$	
$7+5 = (9) = 2$	$7+5=12$	$7+5=12$	$(6-2)! = 24$	$(6-2!)! = 24$	$4! = 24$	
$2! \times 2 = 4$	$12 - \sqrt{9!} = 6$	$2! - \sqrt{9!} = 2$	$7+5=12$	$7+5=12$	$7+5=12$	$7+5=12$
$4! = 24$	$6-2! = 4$	$2+2 = 4$	$12 - \sqrt{9!} = 2$	$12 - \sqrt{9!} = 2$	$12 - \sqrt{9!} = 2$	$12 - \sqrt{9!} = 2$
$7+5 = (9) = 2$	$4! = 24$	$4! = 24$	$2! + 2 = 4$	$2! + 2! = 4$	$2 \times 2 = 4$	$2! \times 2 = 4$
$2! \times 2! = 4$	$7+5=12$	$7+5=12$	$4! = 24$	$4! = 24$	$4! = 24$	$4! = 24$
$4! = 24$	$12 - \sqrt{9!} = 2$	$12 - \sqrt{9!} = 2$	$7+5=12$	$7+5=12$	$7+5=12$	
$7+5=12$	$2! \times 2! = 4$	$(2+2)! = 24$	$12 - \sqrt{9!} = 2$	$12 - \sqrt{9!} = 2$	$12 - \sqrt{9!} = 2$	
$12 - \sqrt{9!} = 6$	$4! = 24$	$7+5=12$	$(2!+2)! = 24$	$(2!+2!) = 24$	$(\sqrt{4}+2)! = 24$	
$12! = 6$	$7+5=12$	$12 - \sqrt{9!} = 2$	$(7+5) \div (9) = 2$	$(7+5) \div (9) = 2$	$(7+5) \div (9) = 2$	
$6-2! = 4$	$7 - \sqrt{9!} = 2$	$(2! \times 2!) = 24$	$(2! \times 2) = 4$	$2! + 2 = 4$	$2! + 2! = 4$	
$4! = 24$	$(2! \times 2!) = 24$		$4! = 24$	$4! = 24$	$4! = 24$	

## Developing 21<sup>st</sup> Century Thinking Skills within the Mathematical Curriculum

When thinking skills are presented in the context of teaching content, they are more meaningful and more likely to be acquired.

### Important Ideas

- 95% of all students that struggle with mathematics are tactile kinesthetic learners
- Increase wait time
- Most individuals need 20-25 incidents of learning to master a concept
- An important parameter for developing problem solving is to enhance spatial visualization skills
- Listening skills must be practiced
- Provide opportunity to develop communication skills
- The key to success is “motivation”

### Targeted Thinking Skills

- Logic & Reasoning
- Problem Solving
- Convergent/Divergent Thinking
- Inductive/Deductive Reasoning
- Lateral Thinking
- Outside The Box
- Socratic Method

### Program

- Time On Task

