Alice Gabbard





Cindy Aossey

The Kentucky Numeracy Project Session 1, January 2011

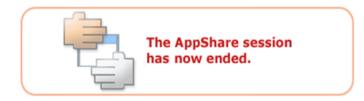


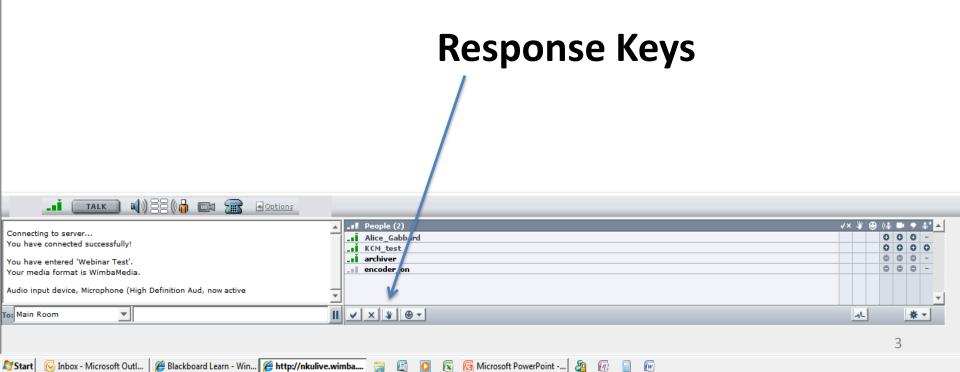


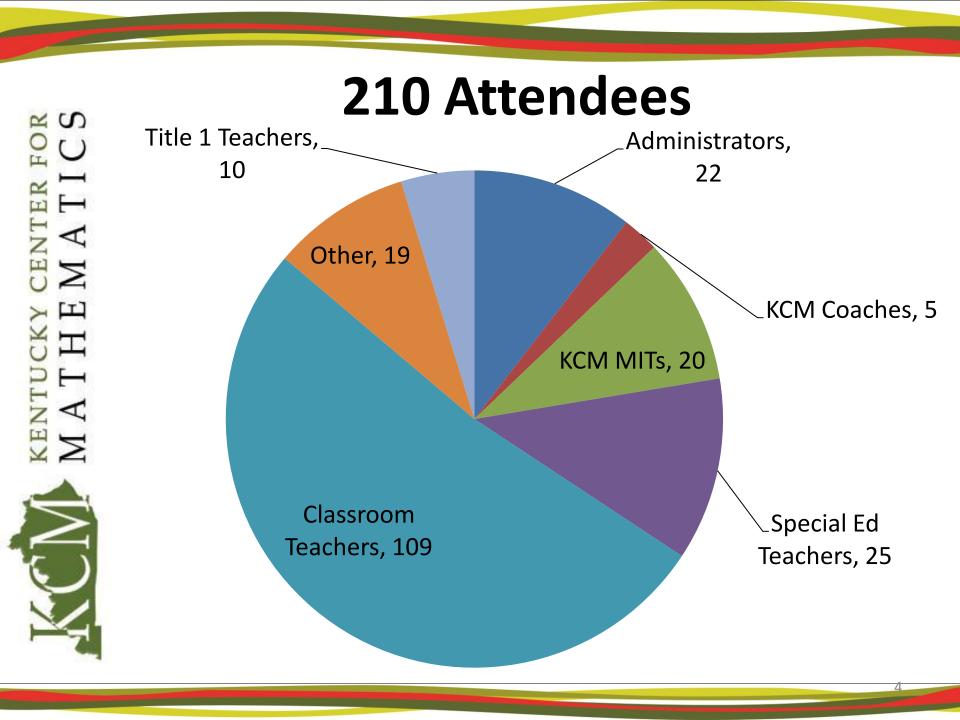


Kris Jarboe The Kentucky Numeracy Project

4) CLOSING 3) PRACTICAL APPLICATIONS 2) INTERVENTION GUIDE 1) INTRODUCTION











"A meta-analysis of the results shows that early math skills have the greatest predictive power [of later achievement], followed by reading and then attention skills."

Duncan, Dowsett, et. al. (Nov. 2007).



Reading:English/Language Arts

as

:Mathematics

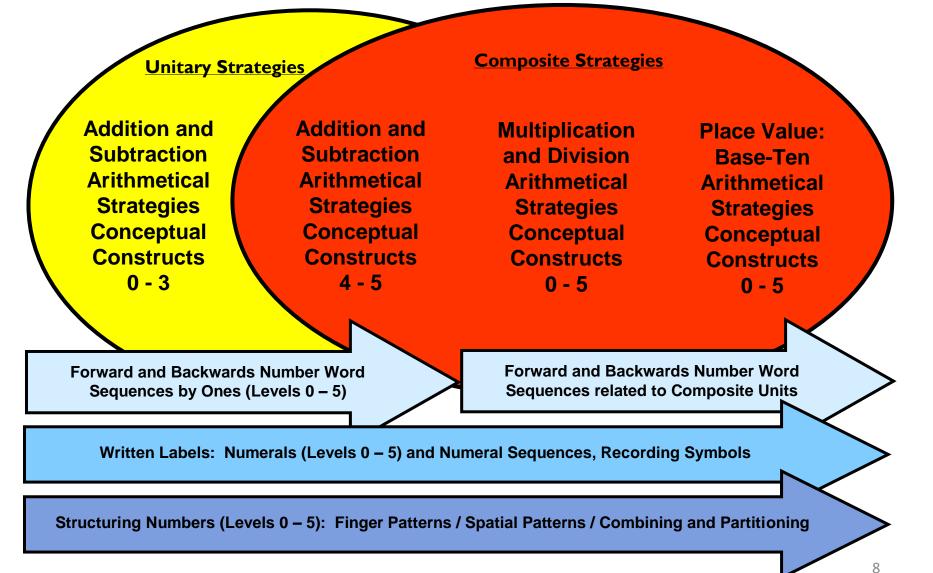


Reading:English/Language Arts

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Number Sense: Mathematics

The Learning Framework in Number



US Math Recovery Council, Add+Vantage MR Program

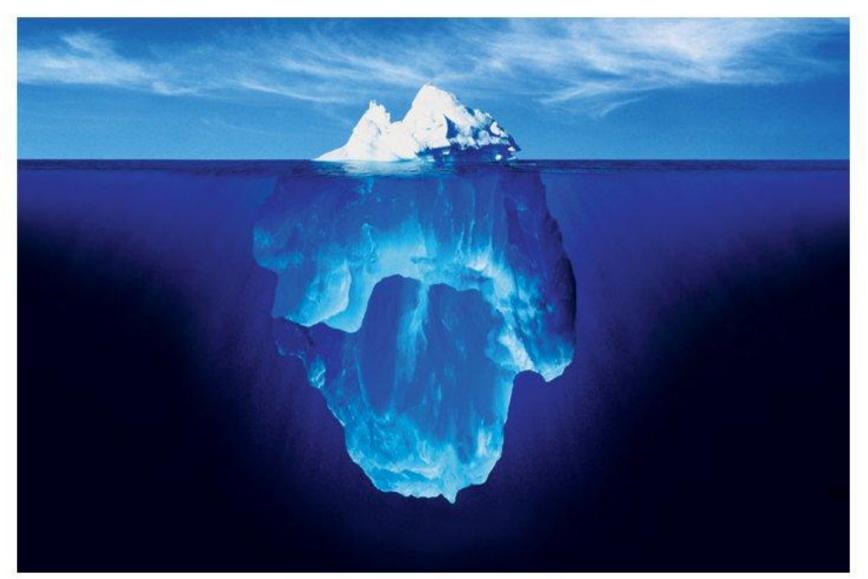
KY Common Core Academic Standards (KCAS)



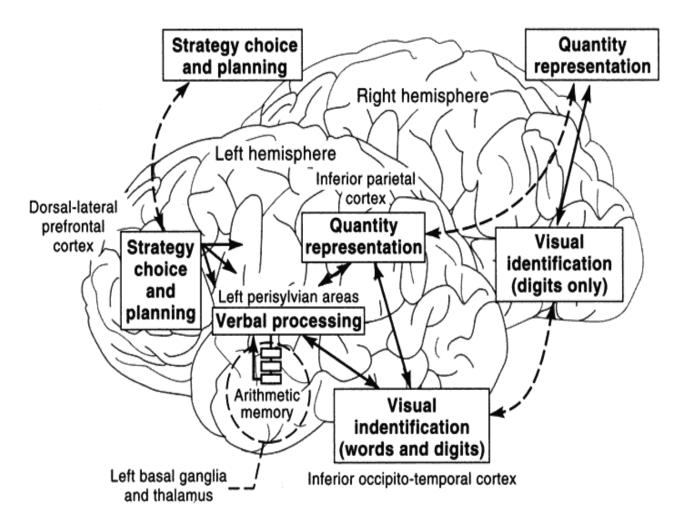
The Common Core State Standards provide a consistent, clear understanding of what students

Common Core State Standards Released

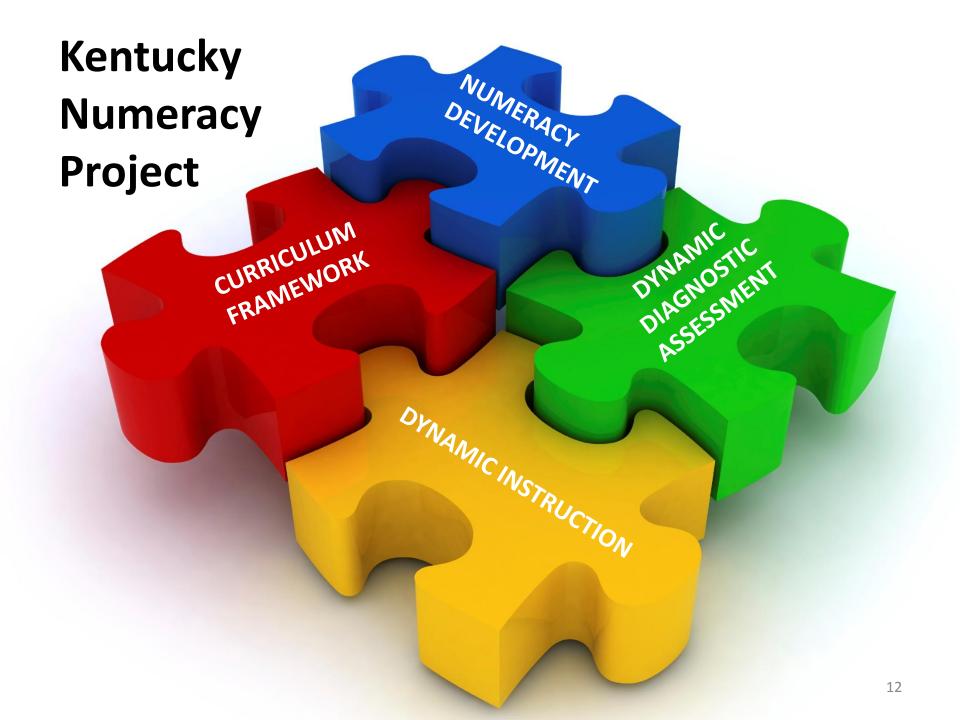
Teaching for Depth

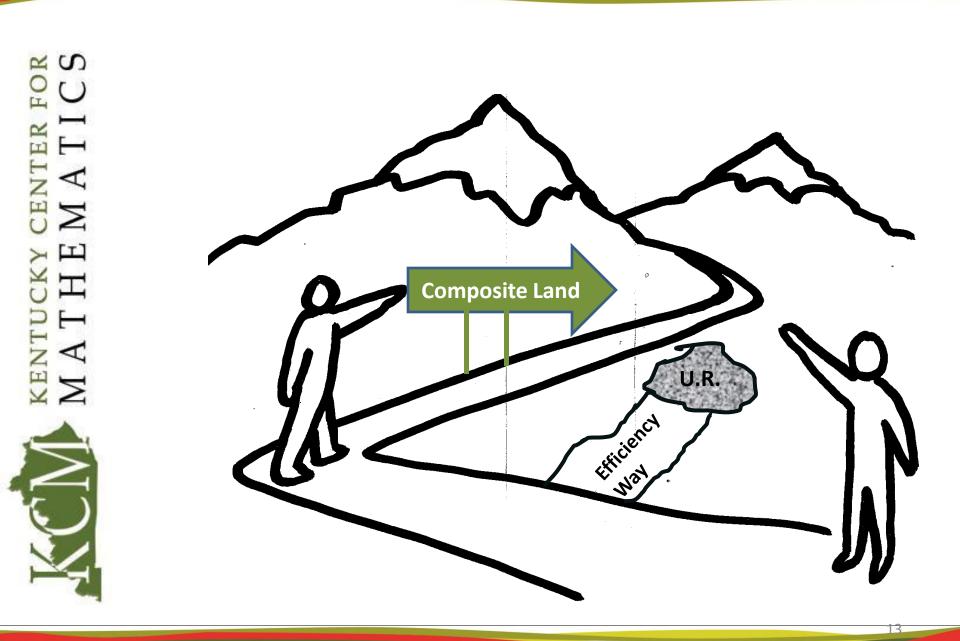


Based on the work of David Webb, Freudenthal Institute

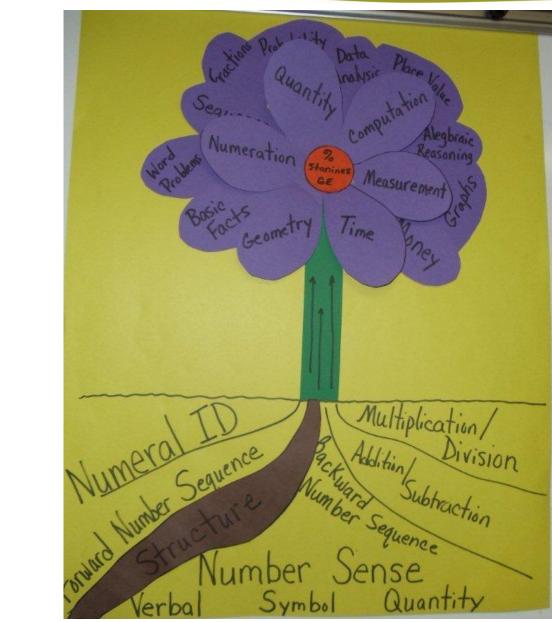


From Dehaene, shared by Brown and Kroeger, UC

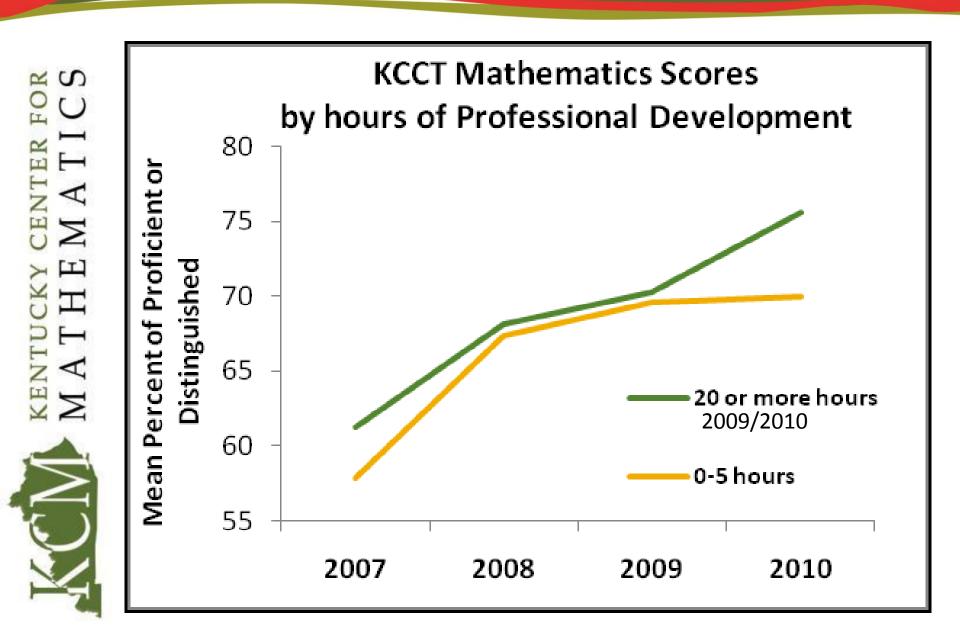


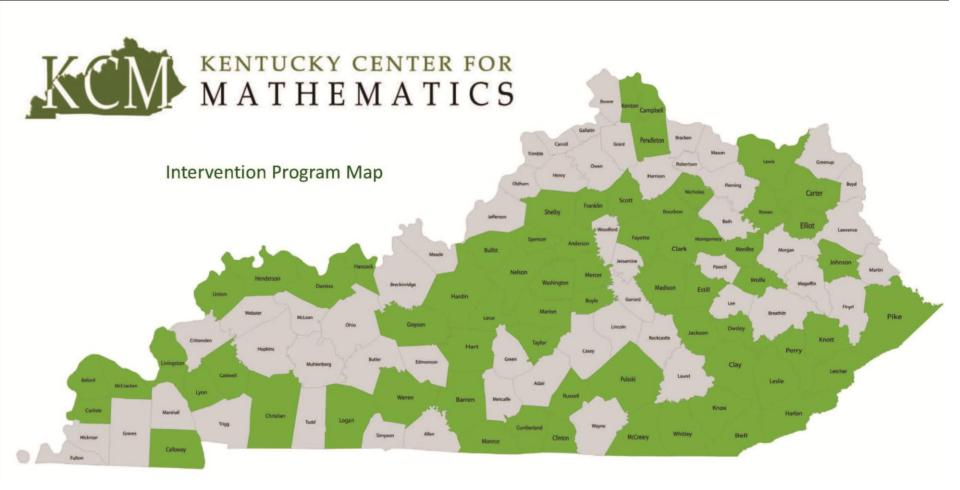






From Lynn Hambrick and Valeria Bodell, Carlisle County Elementary





The Kentucky Numeracy Project

Resources and professional development for teachers working to build strong numeracy foundations

Alice Gabbard, Director; Frank McGoron, KNP Consultant

KCM Regional Coordinators: **Cynthia Aossey**, University of Kentucky; **Mary Helen Hodges**, Murray State University; **Linda Jewell**, Kentucky State University; **Linda Montgomery**, Morehead State University; **Gwen Morgan**, Kentucky Valley Educational Cooperative; **Wilma Rogers**, Western Kentucky University.

Special thanks to: **Petey MacCarty** and **Kurt Kinsey** for providing exceptional training and support; **Bob Wright** for developing the rigorous Math Recovery professional development program; **Jenny Cobb** and the **US Math Recovery Council** for establishing and supporting a highly-professional learning community of teacher scholars.

Contributors: This resource compilation and the related professional development leadership is made possibly through the selfless dedication of **Kentucky's highly-trained force of mathematics intervention teachers** (named with the entries submitted on the Intervention Guide) whose positions are funded through the Kentucky Mathematics Achievement Fund. Additionally, many of the KCM's talented regional coordinators contributed many hours to reviewing, polishing and creating supplemental activities.

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KCM – facilitating teacher growth for state-wide student success in mathematics: Coaching/Intervention/Adult Education. Located at Northern Kentucky University; supported by the Kentucky Council on Postsecondary Education and the Kentucky Department of Education

The Kentucky Numeracy Project

4) CLOSING

3) PRACTICAL APPLICATIONS

2) INTERVENTION GUIDE

1) INTRODUCTION

KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand (from AVMR)	Construct Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)
Nb 107.3	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2-10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)	2 to 3 YELLOW	Factle BNWS from 'ten'	name the number word that comes just before a number in the range of 1-10.
Nb 107.4	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	Bingo Game Board labeled with random numbers 1- 29; numeral cards 2- 30 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)	3 to 4 RED	Factle BNWS from 'thirty'	name the number just before a given number in the range of 1- 30
Nb 107.5	K.CC.1 Count to 100 by ones and by tens.	Counting & Cardinality	Know number names and the count sequence	TicTacToe board labeled w/"9's" 19- 99;decade numeral cards 20-100 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)	4 to 5 BLUE	Factle BNWS from 'one hundred	name the number word before in the range of 1-100.
Nb 109.0	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	No materials needed	Teacher counts backward from 5 to 1 and omits one number. Students earn a point every time they accurately identify the omitted number from the counting sequence. The teacher earns a point anytime the students cannot identify the error.	Number Words backward	0 YELLOW	Emergent BNWS from 'ten'	detect errors in counting and identify which number was omitted from a sequence as the teacher counts.
Nb 109.1	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	No materials needed	Teacher says a backward counting sequence in the range of 10 to 1 and omits one number. Students earn a point every time they accurately identify the omitted number from the counting sequence. The teacher earns a point anytime the students cannot identify the error.	Number Words (backward)	0 to 1 YELLOW	Initial BNWS from 'ten' (no NWB)	detect errors in counting and identify which number was omitted from the sequence as the teacher is counting. 20

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1 Pot Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences ("see glossary)	Numeracy Strand	Construc	Numeracy	"I CAN" ("see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Reference	Teacher Notes	Submitted By	Reviewer and Comments	Date Posted	
0'201 994	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0- 20 (with 0 representing a count of no objects).	Counting & Cardinality	Know number names and the count sequence	to fit inside; three or four	The object of the game is to fill a five frame with the numbers 1-5, placed in the correct sequence. Players take turns drawing cards. The player who draws the card says the number aloud, counts back from that number to one, then places the card in the correct slot on the five frame. The first player to fill all five spaces is the winner.	mber V.	0Yellow	Emergent BMv/S from 'ten'	identify the numerals and count back from 5-1.	Teacher flashes a numeral card in the range of 1-5. Student names the number and counts back from the numeral to one.	Parmers		5 frames and numeral cards.				Linda Montgomery	1.3.11	
1'201 W	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0 20 (with 0 representing a count of no objects).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9, Numeral cards 1- 9 (see link)	Players take turns drawing cards. The player who draws a card reads the numeral aloud, counts from 10 to that number and then places a marker on that number on the game board. The first player to get three in a row is the winner.	Number Vords (backward)	010 TYELLOW	Initial BMMS from 'ten' (no MMB)	recognize and identify the numerals 1 - 10 and count back from 10 to 1.	Teacher flashes a numeral card in the range of 1-10. Student names the number and counts from 10 to the number on the card.	Partners		TicTacToe 1 to 9 and numeral cards.		A number line is included in the printable in case students need additional support.		Linda Montgomery	1.3.11	
73 2'201 9N 74	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (Backward)	110 ZYELLOW	Intermediate EWwTS	name the number word that comes just before a number in the range of 1-10.	Teacher orally gives a number in range 1-10; student gives the number word before (NWB).	Partners		TicTacToe 1 to 9. and numeral cards.				Linda Montgomery	1.3,11	
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1	KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	umeracy Strand	(from AMIR) Construct Level	(from AVMR)	도질	"I CAN" (*see glossary)	Assessment f Learning
75	Nb 107.3	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words N	Pa	2 to 3 YELLOW	Facile BNWS from 'ten'	name the number word that comes just before a number in the range of 1-10.	Teacher orally gi number in range student gives the n word before (NV
76	Nb 107.4	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and th count sequence	Bingo Game Board labeled with random numbers 1-29; numeral cards 2-30 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)		3 to 4 RED	Facile BNWS from 'thirty'	name the number just before a given number in the range of 1-30	Teacher orally gi number in range student gives nur word before (NV
	107.5	K.CC.1 Count to 100 by ones and by	& Cardinality	r names and the sequence	TicTacToe board labeled w/"9's" 19- 99;decade	Players take turns drawing cards and placing game markers on the	ds (backward)		5 BLUE	om 'one hundred'	name the number word	Teacher orally a numbers in range w/special attenti

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1	KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activi
75	Nb 107.3	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players t r
	07.4	K.CC.2 Count forward beginning from a given number within the	Cardinal ity	names and the quence	Bingo Game Board labeled with random numbers	Players t

4	А	В	C	υ	E	
1	KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Dormain	KCAS Cluster	Setting (situation & materials)	Activi
75	Nb 107.3	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players t r
	07.4	Number words backward K.CC.2 Count forward beginning from a given number within the	Cardinal ity	names and the quence	Bingo Game Board labeled with random numbers	Players t

Number Words and Numerals [N] Nf – Number words forward Nb – Number words backward Ni – Numeral ID **[S]** Structuring **Addition and Subtraction [A]**

- [M] Multiplication and Division
- [T] Tens and Ones

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1	KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activi
75	Nb 107.3	Task Number K CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players t r
	07.4	K.CC.2 Count forward beginning from a given number within the	Cardinal ity	names and the quence	Bingo Game Board labeled with random numbers	Players t

4		А	В	C	D	E	F	G	
1		KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand (from AVMR)	Construct Level
74		Nb 107.2	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinal ity	Know number names and the count	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)	4 to VELLOW
75	5	Nb 107.3	K.CC.2 Count forward beginning from a given number within the mown sequence (instead of having to begin at 1).	Operation & Algebraic Thinking	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)	2 the 2 VELLOW
70	5	Nb 107.4	Task group K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinal ity	Know number names and the count sequence	Bingo Game Board labeled with random numbers 1-29; numeral cards 2-30 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)	2 th 4 DED
		Nb 107.5	K.CC.1 Count to 100 by ones and by tens.	ting & Cardinality	umber names and the ount sequence	TicTacToe board labeled w/"9's" 19- 99;decade numeral cards 20-	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn	r Words (backward)	2 × 4 2

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1	KMP-Eatry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting situation & materials)	Activi
75	Nb 107.3	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinal ty	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players t
	07.4	K.CC.2 Count forward beginning from a given number within the	Cardinal ity	names and the quence	Bingo Game Board labeled with random numbers	Players t

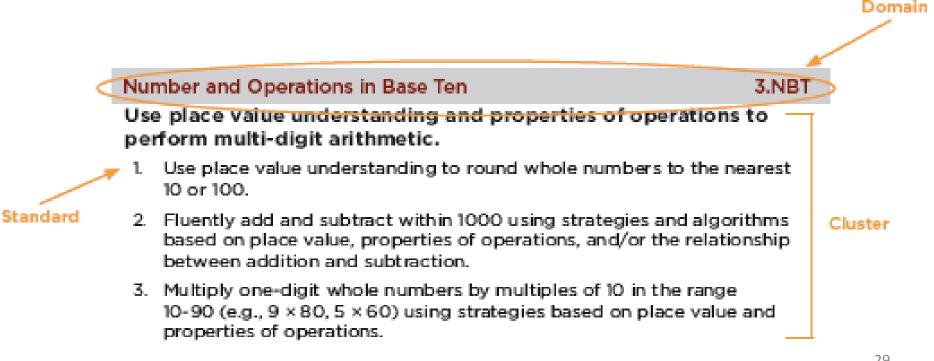
Standards define what students should understand and be able to do.

Clusters summarize groups of related standards.

Standards from different clusters may sometimes be closely related, because *mathematics* is a connected subject.

Domains are larger groups of related standards.

Standards from different domains may sometimes be closely related.



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1	KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activi
75	Nb 107.3	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players t r
	07.4	K.CC.2 Count forward beginning from a given number within the	Cardinal ity	names and the quence	Bingo Game Board labeled with random numbers	Players t

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	KCAS Cluster		Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand	(from AVMR)	Construct Level (from AVMR)	Numeracy Target
Thinking	Know number names and	the count sequence	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words	(backward)	2 to 3 YELLOW	Facile BNWS from 'ten'
(imes and the	uence	Bingo Game Board labeled with	Players take turns drawing cards and	(hackward)	(packward)	RED	om 'thirty'

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	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand (from AVMR)	Construct Lovel	Construct Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	Student	Grouping	Video Link	Print Link	Reference
acuanbas runoc au	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)	(הפרעאמו ח)	2 to 3 YELLOW	dile BNWS from 'ten'	name the number word that comes just before a number in the	Teacher orally gives a number in range 1-10; student gives the number word before (NWB).	Partners			TicTacToe 1 to 9 and	
						Fac	range of 1-10.					₽	
conur sednes	Bingo Game Board labeled with random numbers 1-29; numeral cards 2-30 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (backward)		3 to 4 RED	Facile BNWS from 'thirty'	name the number just before a given number in the range of 1-30	Teacher orally gives a number in range 1-30; student gives number word before (NWB)	Partners			Bingo 1 to 29 and numeral cards	
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	KCAS Cluster		Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand	(from AVMR)	Construct Level (from AVMR)	Numeracy Target			
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vities: Exemplary Learning periences (*see glossary)	Numeracy Strand (from AVMR)	Construct Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	Student
take turns drawing cards and game markers on the number omes just before the number drawn.	Number Words (backward)	2 to 3 YELLOW	Facile BNWS from ten'	name the number word that comes just before a number in the range of 1-10.	Teacher orally gives a number in range 1-10; student gives the number word before (NWB).	Partners
take turns drawing cards and game markers on the number omes just before the number	- Words (backward)	3 to 4 RED	BNWS from 'thirty'	name the number just before a given number in the	Teacher orally gives a number in range 1-30; student gives number word before (NWB)	Partners

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take turns drawing cards and game markers on the number omes just before the number	- Words (backward)	3 to 4 RED	BNWS from 'thirty'	name the number just before a given number in the	Teacher orally gives a number in range 1-30; student gives number word before (NWB)	Partners

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take turns drawing cards and game markers on the number omes just before the number	- Words (backward)	3 to 4 RED	BNWS from 'thirty'	name the number just before a given number in the	Teacher orally gives a number in range 1-30; student gives number word before (NW/R)	Partners

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take turns drawing cards and game markers on the number omes just before the number	- Words (backward)	3 to 4 RED	BNWS from 'thirty'	name the number just before a given number in the	Teacher orally gives a number in range 1-30; student gives number word before (NW/R)	Partners

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esment for earning	Student Grouping	Video Link	Print Link	Interactive Website	<u>Reference</u>	Teacher Notes	Submitted By	Reviewer and Comments	Date Posted	
r orally gives er in range 1- udent gives Imber word re (NWB).	Partners		TicTacToe 1 to 9 and numeral cards					Linda Montgomery and Mary Helen Hodges	1.3.11	
r orally gives er in range 1-	ers		numeral cards					Linda Montgomery		

K	L	Μ	Ν	0	Ρ	Q	R	S	Т	
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r orally gives er in range 1-	ers		numeral cards					Linda Montgomery		

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1 Pot Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences ("see glossary)	Numeracy Strand	Construc	Numeracy	"I CAN" ("see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Reference	Teacher Notes	Submitted By	Reviewer and Comments	Date Posted	
0'201 994	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0- 20 (with 0 representing a count of no objects).	Counting & Cardinality	Know number names and the count sequence	to fit inside; three or four	The object of the game is to fill a five frame with the numbers 1-5, placed in the correct sequence. Players take turns drawing cards. The player who draws the card says the number aloud, counts back from that number to one, then places the card in the correct slot on the five frame. The first player to fill all five spaces is the winner.	mber V.	0Yellow	Emergent BMv/S from 'ten'	identify the numerals and count back from 5-1.	Teacher flashes a numeral card in the range of 1-5. Student names the number and counts back from the numeral to one.	Parmers		5 frames and numeral cards.				Linda Montgomery	1.3.11	
1'201 W	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0 20 (with 0 representing a count of no objects).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board labeled 1-9, Numeral cards 1- 9 (see link)	Players take turns drawing cards. The player who draws a card reads the numeral aloud, counts from 10 to that number and then places a marker on that number on the game board. The first player to get three in a row is the winner.	Number Vords (backward)	010 TYELLOW	Initial BMMS from 'ten' (no MMB)	recognize and identify the numerals 1 - 10 and count back from 10 to 1.	Teacher flashes a numeral card in the range of 1-10. Student names the number and counts from 10 to the number on the card.	Partners		TicTacToe 1 to 9 and numeral cards.		A number line is included in the printable in case students need additional support.		Linda Montgomery	1.3.11	
73 2'201 9N 74	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Counting & Cardinality	Know number names and the count	TicTacToe Board labeled 1-9; numeral cards 2- 10 (see link)	Players take turns drawing cards and placing game markers on the number that comes just before the number drawn.	Number Words (Backward)	110 ZYELLOW	Intermediate EWwTS	name the number word that comes just before a number in the range of 1-10.	Teacher orally gives a number in range 1-10; student gives the number word before (NWB).	Partners		TicTacToe 1 to 9. and numeral cards.				Linda Montgomery	1.3,11	
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The Kentucky Numeracy Project

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12		2.0.3.3 (] Write an equation to express the row mumber as a row of two equal addands. a get the control of the control of two equal addands. a get the control of two equal addands. a get the control of the control of two equal addands. a get two equal addands.<																M 402.6	lice Gabbard		1.3.11														
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41	2.0A.3. () Write an equation to express an even number as a sum of two equal addends.	Agendition and Sheek air Thinking Work alls equal second second later. Second Second Second Second Second	Go Fish for Even Number Addition	"Go Fish." Each player takes 5 cords (when looking)[per extra cards face down) If any player has cards with matching addeads and the sum, pert take pair on the table, its player than a play anders if they have a card wit (whatever they need). If he other player has has card, they have that or player. If have, any "Go Fish." Continue until one player is out of cards.	Multiplication and District.		match equal exp dends to the sum. ask	w an addition pression with ual addends, h as 8 + 8 and i students to rite the sum.	publicia publicia publicia de la construction de la			M 402.5	Alice Gabbard		1.3.11													
12	2.0A.3. () Write an equation to express an even number as a sum of two equal addends.	and the second		M 402.6	Alice Gabbard		1.3.11																					
43	2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	Constitut Recent will shoped their allebutes.	Color Tiles - 20 Writing Space	Arrange 8 color tiles to make a rectangle. Arrange those 8 tiles again to make a different rectangle. Write the multiplication sentence for each restangle. Also, make all the possible restangle using 8 to 20 color tiles and write the multiplication sentence for each.	Hulliplication and Distance	Life de contra	make n rectangles n sing square pos es and write colo he matching writ ultiplication mr sentence.	the student to nake all the rectangles sible using 12 or tiles and to to the related ultiplication sentence.	Institut			M 405.1	Alice Gabbard		1.3.11													
44	2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	Germelon Record Michelon Alleitadore	Connect the Dots Page, Writing Space	Connect the dots to find the number of squares that will fit in each rectangle. Write the multiplication sentence to match the rectangle model.	Huffipfication and Distance	adeal Conditation Mattigates	ctangles into dra quare units units ad write the by c matching do ultiplication	k students to w the square in a rectangle connecting the ts & write the related ultiplication	Hiddeal Martiness Martheord	Hadrowersky alt 1988.		M 405.2	Alice Gabbard		1.3.11													
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ı & s)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand	Construct Level	Numeracy Target	"I CAN" (*see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	<u>Reference</u>	Teacher Notes
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id key ers මු com	The student rol card, and places on one turkey. T die again and feathers on the student should then count the total number of feathers and either write or select a number card to express the total or sum.	Number W.	0 to 1'	Initial FNWS t	ind All Eine tnat occur when structuring to 5.	Options >> I Next Close sheets	independ		http://www.mathwire.com/strat eqies/matsseasonal.html		47
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Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand	Construct Level	Numeracy Target	"I CAN" (*see glossary)	Assessment for Learning	Student	Video Link	Print Link	<u>Reference</u>	Teacher Notes
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Paper and pencil Turkey and feathers pattern @ mathwire.com	The student roll card, and places on one turkey. T die again and feathers on the student should then count the total number of feathers and either write or select a number card to express the total or sum.	Number Wi	01011	Initial FNVS t	nd All Eine that occur when structuring to 5.	Options >> Close sheets	independ		http://www.mathwire.com/strat eqies/matsseasonal.html		
Paper and pencil Turkey	The student rolls a die or selects a card, and places that many feathers on one turkey. The student rolls the die again and places that many	ds (forward)	נורסא	NWS to 'ten' . for NWA)	understand structuring numbers and the patterns	Teacher observation	t or group		vire.com/strate asonal.html		48

rd beginning tegen r within the beginning ead of having 1).	(Supurple) & building)	Knau number namer and the cauntrequence	No materials needed	Teacher says a forward counting sequence in the range of 1 to 30 and omits one number. Students earn a point every time they accurately identify the omitted number from the counting sequence. The teacher earns a point anytime the students cannot identify the error.	Number Wards (farward)	3 to 4 GREEN	Facile FNWS to 'thirty'	detect errors in counting and identify which number was omitted from the sequence as the teacher is counting.	Teacher will ask each student to count forward from various numbers in the range of 1 to 30.	Variaur				Teacher should vary the starting number in the sequence.	
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er the number up is greater qual to the in another natching and egies.	Counting & Cardinality	oquin	Paper and pencil Turkey and feathers pattern @ mathwire.com	The student rolls a and places that m turkey. The stude and places that m other turkey. The count the total nu either write or sel evenes the	hany feathers on ent rolls the die ay nany feathers on student should t imber of feathers	IG Master IG Master IG Master IG Master IG Master IG Master	1.5.11.xls 1.5.11.xls 1.5.11.xls 1.5.11.xls 1.5.11.xls 1.5.11.xls	Intervention Guide Intervention Guide Intervention Guide Intervention Guide Intervention Guide Intervention Guide		\$B\$181 \$F\$204 \$B\$207 \$B\$208 \$B\$209 \$B\$210 \$B\$211	Students pairs: Player 1 t K.CC.6 Identify whether K.CC.6 Identify whether K.CC.6 Identify whether K.CC.6 Identify whether	takes a card from the deck an the number of objects in one the number of objects in one
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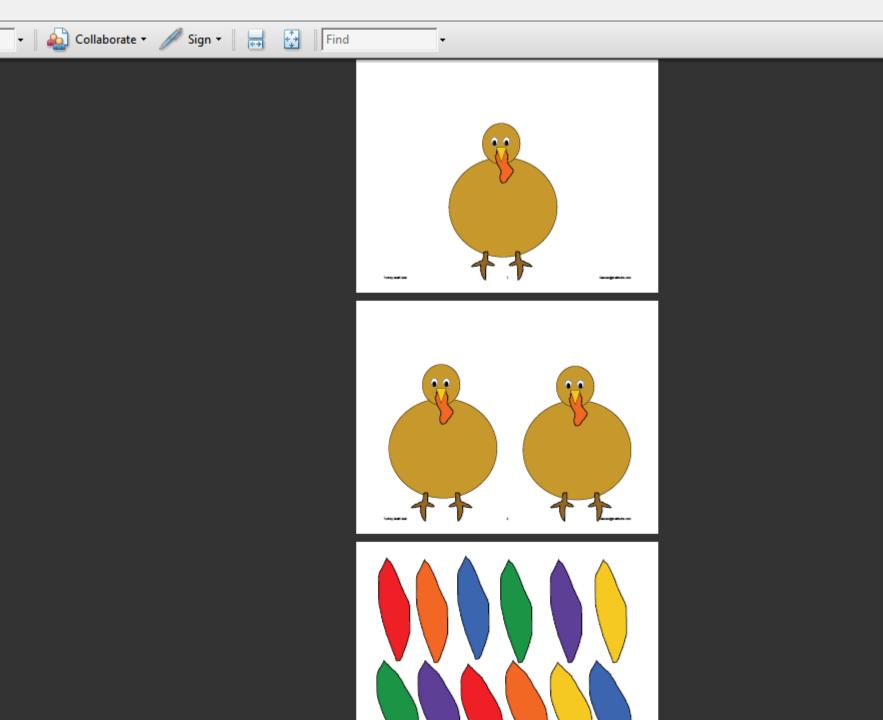
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KNP Entry	Kentucky Common Core Academic Standard (KCAS) ("see glossary)	KCAS Damain	KCAS Clurter	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Humaracy Streed	Construct Level	Numerecy Terget	"I CAN" ("see glossary)	Assessment for Learning	Stadeat Grouping	Video Link	Print Link	<u>Reference</u>	Teacher No
Nf 116.5	K.CC.1 Count to 100 by ones and by tens.	Counting & Cardinality	Knau number namer and the sountrequence	No materials needed	Teacher says a forward counting sequence in the range of 30 to 100 and omits one number. Students earn a point every time they accurately identify the omitted number from the counting sequence. The teacher earns a point anytime the students cannot identify the error.	Number Wardr (farward)	4 to 5 PURPLE	Facilie FNWS ta'ane hundred'	detect errors in counting and identify which number was omitted from the sequence as the teacher is counting.	Teacher will ask each student to count forward from various numbers in the range of 30 to 100.	Variaur				Teacher shouk the starting num the sequenc
1.081 N	K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	Counting & Cardinality	Campare numbers	Paper and pencil Turkey and feathers pattern @ mathwire.com	The student rolls a die or selects a card, and places that many feathers on one turkey. The student rolls the die again and places that many feathers on the other turkey. The student should then count the total number of feathers and either write or select a number card to express the total or sum.	Number Wardr (faruard)	04m1YELLOW	Initial FNWS to 'ton' (na NWA)	understand structuring numbers and the patterns that occur when structuring to 5.	Teacher observation and turky patten sheets	independent? graup		http://uuu.mathuire.com/rearon		Printa
Nf 180.2	K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	Caunting & Cardinality	Camparo numborz	Paper and pencil Turkey and feathers pattern @ mathwire.com	The student rolls a die or selects a card, and places that many feathers on one turkey. The student rolls the die again and places that many feathers on the other turkey. The student should then counts the total number of feathers and either write or select a number card to express the total or sum.	Number Warde (farward)	4ta 5 PURPLE	Facilio FNWS ta'ano hundrod'	understand structuring numbers and the patterns that occur when structuring to 10.	Teacher observation and turky patten sheets	independent ar graup		http://uuu.mathuire.com/rearana		
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		When counting objects, say number names in the standard	Find	Replace													31.1		Linda Jewell and Barbara		1.3	.11		
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					Intervention Guide		F\$28 Bi	ngo Addition:	Each player sl	hould ha	ave a Bingo board (2-12)				ber that all players	cover on their own b	oard							
				r 1.4.11.xls (3).xls r 1.4.11.xls (3).xls				count the dot			he sum to touch the dots on bot	dice to deter	ing the total											
K	(entucky (Center for Mathematics; Kentue		r 1.4.11.xls (3).xls r 1.4.11.xls (3).xls							have a Bingo board (2-12				mber that all playe	rs cover on their own	boar Ke	entucky	y Center for Ma	athematics; Ke	ntucky Numer	acy Project		
_				r 1.4.11.xls (3).xls					-		ded numeral dice 0-9													
				r 1.4.11.xls (3).xls r 1.4.11.xls (3).xls							ump out. Write a two-di ded numeral dice 0-9	git number and	say aloud. (For example if the o	lice are 3 and 5 yo	u could make 35 or 5	3.)							
K	(entucky (Center for Mathematics; Kentue		r 1.4.11.xls (3).xls							dump out. Write a num	per and say it a	loud. (For e	xample if the dice a	re 3, 5, and 6, you	u could make 356, 563	3, 63 Ke	ntucky	y Center for Ma	athematics; Ke	ntucky Numer	acy Project		
				r 1.4.11.xls (3).xls				vo dot dice or																
		Kentucky Common Core		r 1.4.11.xls (3).xls r 1.4.11.xls (3).xls				vo 10-sided di X7 Eour in a Ri			g sheet rs 5-10 and dice with nur	erals 0-5					2			Reviewer a	nd			
	심	cademic Standard (KCAS) (*see glossary)		r 1.4.11.xls (3).xls				hut the Box ga									4		ubmitted By	Comment	Date	osted		
	2	("see glossaly)		r 1.4.11.xls (3).xls							sheet, player rolls two d		find the sum	n. If sum is greater	than 10, student r	olls again. Player can	cove 3	2						
		.OA 6 Add/subtract w/in 20,		r 1.4.11.xls (3).xls r 1.4.11.xls (3).xls				-			t, numeral dice with sides sheet, player rolls two n		adds to find	the sum. If sum is	oreater than 10, r	laver should roll agair	, Pla							
		demonstrate fluency for ition/subtraction w/in 10. Use	IG Master	r 1.4.11.xls (3).xls	Intervention Guide						3-10, 2 each). Shuffle an													
	str	rategies such as counting on;			Intervention Guide			-			ce (or three 1-6 dice), co		bead rack											
		ting 10 (8+6=8+2+4 =10+4=14); composing a number leading to		r 1.4.11.xls (3).xls r 1.4.11.xls (3).xls							imber Capture with 3 dice ce (or three 1-6 dice), co								Linda Jewell					
		0 (13-4=13-3-1=10-1=9); use			Intervention Guide						mber Capture with 3 dice						371	a	and Barbara		1.3	.11		
		ationship of add/sub (knowing	IG Master	r 1.4.11.xls (3).xls	Intervention Guide	\$	P\$285 Co	ould extend a	ctivity using h	ttp://ww	vw.edu.gov.mb.ca/k12/c	ur/math/games	/dot_bingo_c	gr_k12.pdf for anot	her option at Leve	2 (game is images 2	to 12		Jacobs					
		4=12, know 12-8=4); creating uivalent, easier, known sums																						
		(6+7 as know equivalent	•																					
		6+6+1=12+1+13)	22 cell(s) f	found																				
		OA 6 Add/subtract w/in 20, demonstrate fluency for																						
	addi	ition/subtraction w/in 10. Use	bject	Bingo Boards filled with	Bingo Addition: Ea				•		Show the 12 card and		Service											
		rategies such as counting on; ting 10 (8+6=8+2+4 =10+4=14);	dinalit r of o	numerals 12-20,	have a Bingo be covers. Players ta			action	dueno		ask student "How	grou	s 12 to 20 and cards		choose to show th									
		composing a number leading to	d Car	Bingo covers, double 10 frame	number that all pla		-	Subtract	count	on to	much is 12 plus 4?" Repeat for similar	small	10		for 2-3 seconds wn. Alternatively,				Linda Jewell and Barbara		4.9	.11		
		0 (13-4=13-3-1=10-1=9); use ationship of add/sub (knowing	ing an	cards 11 to 14	own board. The pl card, roll the cub			to 3G	find the	e sum	quantities. Note if	r pair,	rds 12	may replace	the cards with a	number	A 371.		Jacobs		1.3			
			출 录 olor Codes	Sorting Inst	ructions	e anu nhù the	sum.	≝ ∾ :	= 1		1	1 2 1			*** ** ** **							-53		
Page	e: 25 of 27	74																			E	# 🗆 😐	82% 😑 –	
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CC.4 Understand relationship
ween number and quantities;
nect counting to cardinality.
When counting objects, say
number names in the standard
der, pairing each object with
e and only one number name
d each number name with one
and only one object.

В					
CC.4 Understand relationship	Book	Sheet	Name	Cell	Value
ween number and quantities;	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$28	Bingo Boards filled with numerals 2-12, Bingo covers, two large dot dice (for example,
nect counting to cardinality.	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$F\$28	Bingo Addition: Each player should have a Bingo board (2-12) and covers. Players take
When counting objects, say	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$3\$28	count the dots on two dice to find the sum
number names in the standard	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$P\$28	Students at this construct may need to touch the dots on both dice to determine the to
der, pairing each object with	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$F\$29	Bingo Addition: Each student should have a Bingo board (2-12) and covers. Players tak
e and only one number name d each number name with one	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$190	Head Full of Numbers game or ten-sided numeral dice 0-9
and only one object.	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$F\$190	Place two dice in a cup. Shake and dump out. Write a two-digit number and say aloud
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$191	Head Full of Numbers game or ten-sided numeral dice 0-9
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$F\$191	Place three dice in a cup. Shake and dump out. Write a number and say it aloud. (Fo
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$202	two dot dice or number cubes 1-6
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$203	two 10-sided dice, paper or recording sheet
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$239	6X7 Four in a Row board with numbers 5-10 and dice with numerals 0-5
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$263	Shut the Box game or printable sheet, dice
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$F\$263	Using a commerical game or printable sheet, player rolls two dice and adds to find the s
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$264	Shut the Box game or printable sheet, numeral dice with sides labeled 1-6
Center for Mathematics: Kentuc	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$F\$264	Using a commerical game or printable sheet, player rolls two numeral dice and adds to f
center for Mathematics, Kentut	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$P\$264	In place of dice, use numeral cards (3-10, 2 each). Shuffle and stack cards. During a tu
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$265	Shut the Box game board, two 1-9 dice (or three 1-6 dice), counters, double bead rack
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$P\$265	Could replace with Vonda Stamm's Number Capture with 3 dice.
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$E\$266	Shut the Box game board, two 1-9 dice (or three 1-6 dice), counters
Center for Mathematics; Kentuc	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$P\$266	Could replace with Vonda Stamm's Number Capture with 3 dice.
	IG Master 1.4.11.xls (3).xls	Intervention Guide		\$P\$285	Could extend activity using http://www.edu.gov.mb.ca/k12/cur/math/games/dot_bing
Kentucky Common Core cademic Standard (KCAS) (*see glossary)	✓22 cell(s) found				
OA 6 Add/subtract w/in 20, demonstrate fluency for	5				

		_										
OA 6 Add/subtract w/in 20, demonstrate fluency for ition/subtraction w/in 10. Use rategies such as counting on; ing 10 (8+6=8+2+4 =10+4=14); composing a number leading to	d Cardinality	umber of objects	numerals 2-12,	Bingo Addition: Each student should have a Bingo board (2-12) and covers. Players take turns finding the number	Subtraction	BLUE	ecounting	add when	Show student a 6 and a 4 on numeral cubes and ask student "How	small group		rds 2 to 12
0 (13-4=13-3-1=10-1=9); use	g and	he nu	Bingo covers, two numeral	that all players cover on their own board. The player should roll both dice	ю v ч	to 2 B	ative o	items are	much is 6 and 4?". If	air, s	1	Board
ationship of add/sub (knowing 4=12, know 12-8=4); creating	ounting	to tell t	I I	and find the sum. The first student to	Aditio	Ŧ	Figura	screened	desired, repeat with other amounts.	artner p		Bingo

Before Sorting, <u>ALWAYS</u> Highlight the _____ Entire Spreadsheet



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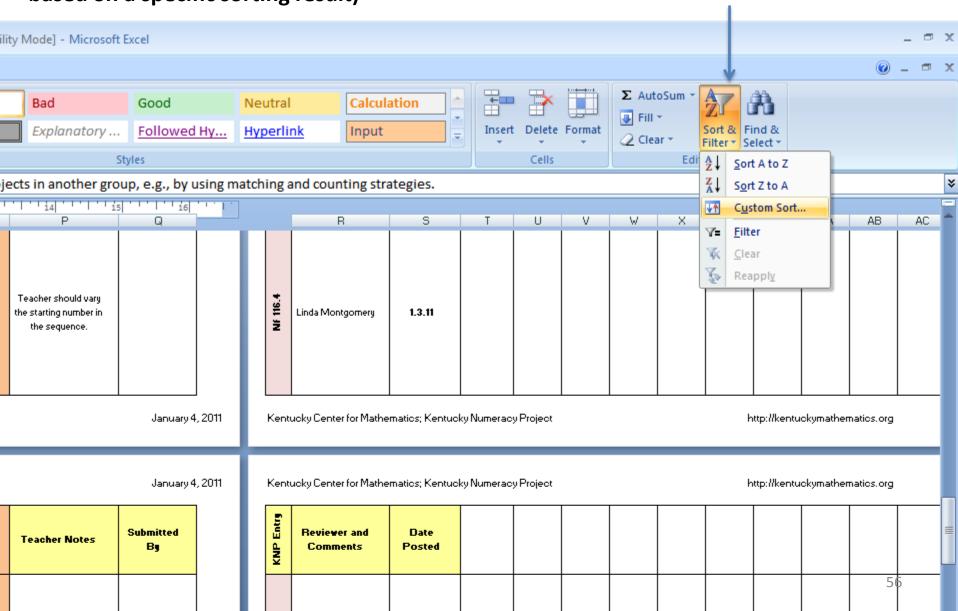
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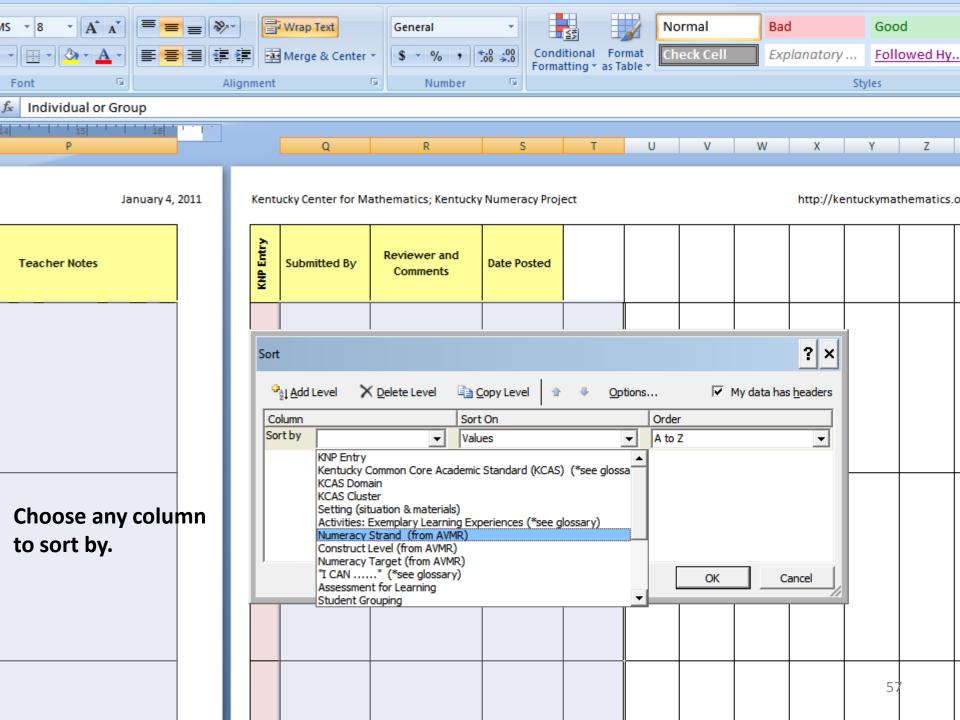
Entry "I CAN ECAS P..... 110 Reference Kentucky Common Core Fidow Lind Setting Part Line Steeler. Granpin Activities: Exemplary Learning ------Assessment Academic Standard (KCAS) (situation & **Teacher Notes** Experiences ("see glossary) ["see for Learning AN X ("see glossary) materials) glossary) TILLIN "Go Fish." Each player takes 5 cards (w/out Wark uilk raad graaps la gais Show an addition ----looking)(put extra cards face down) If any player has expression with Operations and Algebrain M 402.5 2.0A.3. (...) Write an equation to Go Fish for Even cards w/ matching addends and the sum, put that pair ...match equal AHI4 S *1 P equal addends, express an even number as a sum of Number on the table. 1st player then asks another if they have addends to the and here with the second s Hallislindian such as 8 + 8 and two equal addends. Addition a card w/ (whatever they need). If the other player has sum ask students to that card, they hand it to player 1. If not, say "Go write the sum. H-III-H Fish." Continue until one player is out of cards. ... find the oddnumber sums معينا بردميه امرينه فسطيانيين sulines and Algebrain Thinking which are even Show an addition Halliplication and Distant number sums and the second teacher when the Play Bingo by covering squares on your board that expression with 402.6 2.0A.3. (...) Write an equation to Bingo boards, ORANGE plus one. ... are 1 more or 1 less than the sum of the addends equal addends, express an even number as a sum of flash cards, and also find the shown on the card. The winner is the first person to such as 8 + 8 and two equal addends. counters odd-number get five in a row. ask students to sums with are 55 write the sum. į even-number sums minus

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See SAMPLE C (for one possible re-organization based on a specific sorting result)

Custom Sort





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2.4 Understand relationship veen number and quantities; ect counting to cardinality. When counting objects, say umber names in the standard er, pairing each object with and only one number name each number name with one and only one object.		Counting and Cardinality	Count to tell the number of objects	Bingo Board filled with numerals 2-1 Bingo cover two large du dice (for example, 5 foam dice)	2, f s, f ot	have a Bingo Players take that all play board. On a rolls the dice	board turns f vers co player e and f	ach player shou (2-12) and cov finding the nun over on their ov 's turn, the pla finds the sum. T ave a "Bingo" wi	ers. nber vn yer The	Addition & Subtraction	0 to 1 RED	Perceptual counting	count the dots on two dice to find the sum	Show student a a 4 on dot cube ask student "I many dots?". desired, repeat other amoun	es and How If t with	partner pair, small group		Bingo Boards 2 to 12

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ademic Standard (KCAS)	(CAS omai	KCAS Cluster	(situation &	4								ОК	Ca	ncel		
(*see glossary)	ŤÓ	<u>ں ×</u>	materials)			· · · · · · · ·		-		-	glossary)	Ŭ	0 G	Vid	Ē	
0A 6 Add/subtract w/in 20, demonstrate fluency for ion/subtraction w/in 10. Use tegies such as counting on; ng 10 (8+6=8+2+4 =10+4=14);	rdinality	er of objects	Bingo Board filled with	have	e a Bingo boar	ach student sho d (2-12) and cov	ers.	raction	ш	Inting		Show student a 6 and a 4 on numeral cubes	ll group	58	2 to 12	



Kentucky Center for Mathematics; Kentucky Numeracy Project SEE KNP SAMPLE C

http://kentuckymathematics.org

KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand	Construct Level	Numeracy Target	"I CAN" (*see glossary)	Assessment for Learning	Student
Ni 118.0	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0- 20 (with 0 representing a count of no objects).	Counting & Cardinality	Know number names and the count sequence	numeral cards 0- 5	Lay out all numeral cards 1-5 randomly on the table. Ask the student to point to the(1-5). If student is incorrect, show the numeral and say it's name. Have the student repeat the name and trace it with his/her finger.	Numeral Identification	0 YELLOW	Numerals to 'ten'	recognize numerals 1-5.	show student a random array of numerals and ask him/her to show you a specific numeral	
Ni 119.0	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0- 20 (with 0 representing a count of no objects).	Counting & Cardinality	Know number names and the count sequence	TicTacToe Board; random combinations of numerals 1-5; 3 sets of domino dot cards 1- 5; counters of 2 colors (1 for ea player)	Student partners play TicTacToe game. Shuffle dot cards and place them in a pile facedown. Players take turns choosing top card from draw pile, placing a marker on a corresponding numeral on the tic tac toe board.	Numeral Identification	0 YELLOW	Numerals to 'ten'	recognize numerals to 5 and match quantities to them.	Teacher will show a numeral card in the range 1-5 and students will put up the matching number of fingers.	
Ni 122.0	K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	Counting & Cardinality	Compare numbers	two dot dice or number cubes 1- 6	Student pairs each tosses a die and compare numbers. The student with the greater number makes a comparison statement ("5 is greater than 3") & writes the comparsion on a recording sheet. Record six comparisons.	Numeral Identification	0 YELLOW	Numerals to 'ten'	identify and compare numerals 1-6.	Adapted from Everyday Day Counts Partner Games - game 19	
					Working in pairs, the students will					59	

Another "FIND" Function

[Compatibility Mode] - Microsoft Excel

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Kentucky Center for Mathematics; Kentucky Numeracy Project

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— -	,	Kentu	icky Center for Mathematics; Kentuc	ky Nu	meracy	/ Project		Find and Replace				
		KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	KCAS Domain	KCAS Cluster	Setting (situation & materials)	Activities: E Experienc	Fin <u>d</u> Replace			_	_
		268.5	2.OA.2. Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.	Operations and Algebraic Thinking	Add and subtract within 20	Numeral cards, 2 each of 5 through 10	Student partne teacher give range 11 to 1 card and sho determines a addend. May b customized c	Book IG Master 1.4.11.xls (3).xls IG Master 1.4.11.xls (3).xls	Sheet Intervention Guide Intervention Guide	Name	Cell \$E\$28 \$F\$28	Value Bingo Boar Bingo Add
		S 292.1	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0- 20 (with 0 representing a count of no objects).	Counting & Cardinality Ope	Know number names and the count sequence	Bingo Cards (see link), Bingo covers, die with regular dot pattern or numeral cube (1 to 6)	Give each stu with multiple r 6. Use the generate a r Each student is on ONE square rolled. Stud numeral, finge or frame. The in a row, down	IG Master 1.4.11.xls (3).xls IG Master 1.4.11.xls (3).xls	Intervention Guide Intervention Guide		\$1,520 \$1,520 \$2,529 \$1,529 \$1,529 \$1,529 \$2,520 \$1,529 \$1,520\$1,520 \$1,	Bingo Roa Bingo Boa Bingo Boa Bingo Roa Bingo Boa Bingo Boa Bingo Boa Bingo Boa Bingo Boa Bingo Boa Bingo Boa Bingo Boa Bingo Boa Bingo Boa
284 		S 292.2	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0- 20 (with 0 representing a count of no objects).	Counting & Cardinality	Know number names and the count sequence	Bingo Cards (see link), Bingo covers, cube with sides labeled "5,6,7,8,9,10"	Give each stu with multiple r 10 (5 versions die (or a sp random numbe is allowed to square match Students may finger pattern, The first stud down, or diaj	IG Master 1.4.11.xls (3).xls IG Master 1.4.11.xls (3).xls	Intervention Guide		\$N\$42 \$E\$76 \$E\$99 \$E\$134 \$E\$169 \$E\$184 \$N\$184 \$E\$185 \$N\$185 <u>\$E\$284</u> \$F\$284 ₆₁	Bingo Boai Bingo Gam Bingo Gam Bingo Gam Bingo Gam Bingo Card kymath.or Bingo Card Give each
285					ž		,	IG Master 1.4.11.xls (3).xls IG Master 1.4.11.xls (3).xls	Intervention Guide Intervention Guide		\$N\$284 \$E\$285	http://w Bingo Ca

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285	S 292.1	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	Counting & Cardinality	Knau number namor and the count requence	Bingo Cards (see link), Bingo covers, die with regular dot pattern or numeral cube (1 to 6)	Give each student a Bingo Card filled with multiple representations of 1-6. Use the die (or spinner) to generate a random number 1-6. Students can place a chip on ONE square matching the amount rolled, choosing the numeral, finger pattern, dot pattern or frame. Game end when a student has 5 in a row, down, or diagonally.	Structuring	0 ta 1 RED	facilestructurer ta five	recognize numbers 1 to 6 when shown as dot patterns, finger patterns, 5 or 10 frames or numeral.	Flash a regular 5 dot pattern and have student write or say matching number. Repeat for a regular 3 and a regular 6. Note if student can give amounts without counting by 1s.	zmall graup uhale clazz	http://www.edu.gov.mb.ca/k12/cur	<u>Imathfamorfdat binga k.pdf</u>	
286	S 292.2	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	Caunting & Cardinality	Knall number namer and the count requence	Bingo Cards (see link), Bingo covers, cube with sides labeled "5,6,7,8,9,10"	Give each student a Bingo card filled with multiple representations of 5-10 (5 versions are avialable). Use the die (or spinner) to generate random numbers 5 to 10. Students can place a chip on ONE square matching the amount rolled, choosing the numeral, finger pattern, dot pattern, 10 frame. Game end when a student has 5 in a row, down, or diagonally.	Structuring	1te 2 BLUE	intermediate <i>x</i> tructurer ta ten	recognize numbers 5 to 10 when shown as dot patterns, tally marks, finger patterns, 10 frames or numeral.	Teacher should flash 6 fingers and have student write or say matching number. Repeat for 4 fingers and 9.	zmall group			(
287	S 292.3	K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	Operations and Algebraic Thinking	Understand addition as putting together or adding to, subtraction as	Bingo Cards (see link), Bingo covers, number cube with sides "0,1,2,3,4,5"	Give each student a Bingo card filled randomly with the numbers 0, 2, 4, 6, 8, 10 (6 versions available). Roll the cube and call out the number rolled. Players must determine the double of the number and then put a chip on ONE square with the double. Game end when a student has 5 in a row, down, or diagonally.	Structuring	2 ta 3 GREEN	facilestructures taten	quickly determine the double of 1 through 5 without counting and without materials.	Ask student to write or say the sums of 4+4 and 3+3.	rmall group			

See KNP SAMPLE A

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KNP Entry	Kentucky Common Core Academic Standard (KCAS) ("see glossary)	KCAS Damain	KCAS Clurter	Setting (situation & materials)	Activities: Exemplary Learning Experiences ("see glossary)	Remoracy Strend	Construct Lavel	Humaracy Target	"I CAN" ("see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Reference
S 292.4	K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no	Numbor Baro 10	rk uith numborr 11-19 qain faundatianr far	Bingo cards (see link), Bingo covers, 20 frames (big enough for	Give each student a Bingo board filled randomly with the numbers 10 to 20 (6 versions available). Flash a 20 frame, arranged either pair-wise or 10+ with 10 to 20 dots. Players must determine the	Structuring	3 to 4 PURPLE	ermediatestructures tatuenty	recognize amounts flashed on a 20 frame.	Flash a 20 frame with 13 dots. Ask "How many dots? How many dots on the top row? How many dots on the	rmall group		ngo Board 10-20 and cards	S n ť

recognize numbers 1 to 6 when shown as dot patterns, finger patterns, 5 or 10 frames 2023 XCC3 Write numbers from 0 to 20. Represent a number of objects with a written nur Directions: Each player will have 1 Bingo Board. Take turns throwing the dice. Every player representing a count of no objects). Materials: Bingo Cards (printable), chips, die with regular dot or numeral die (1 to 6 first player with Bingo wins-Assessment Flash a regular 5 dot pattern and have student write or say matchin which is foundant contained and and and the student counting by 1s 6. Note if student can give amounts without counting by 1s. Teacher Notes

DOT BINGO

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I can recognize numbers 5 to 10 when shown as dot patterns, tally marks, finger pattern

52912 Write numbers from 0 to 20. Represent a number of objects with a written KCC3 Write numbers from 0 to 20. Represent a number of objects with a written representing a count of no objects)

represented a court of no objects).

the part with Biogo week

1120

Directions: Each player will have I Bineo Board. Take turns throwing the dire. Every pl first player with timeo wins

Materials Bineo Cards (primable), chips, die with sides labeled *5, 6,78,9,10*

Assessment reacher should reach 6 timeers and have student write or sail

	1	BINGO 5-1	0	
m m	•••••	łłł	8	::
7		BB		1111
Sens	••••	FREE	::: :::	en m
****	m m	10	••••	HIT HIT
::	-1111 11	• • • • • • • •	my my	HT III

numeral



- quickly determine the double of 1 through 5 without counting and without materials 192.3 KOA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.e., i Directions Each player will have 1 Bingo Board. Take turns throwing the cube. The person throwi bined the sense and all all players will come that examples on their boards. The f drawings to represent the problem. Each player will have I bineo Board. Take turns throwing the cube. The person throw double of the amount rolled. All players will cover that number on their boards. The f

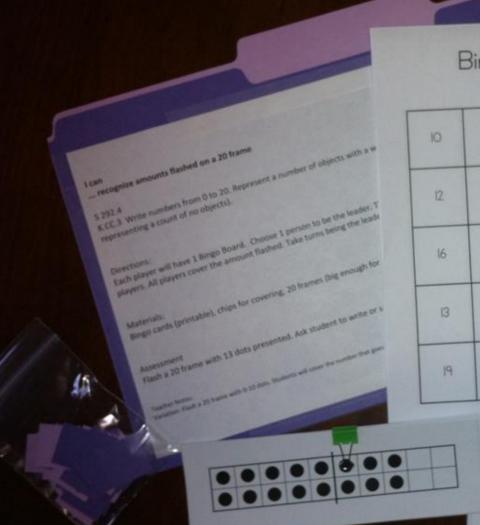
Maternals. Bingo Cards (printable), chips for covering, number cube with sides "0,1,2,3,4,5"

Ask student to write or say the double of 4.

Transferr Instant

Free Space

Doubles Bingo



Bingo Board 10-20

10	20	18	13	10
12	15	1	17	16
16	17	Free Space	1	Б
13	19	н	12	18
19	н	M	12	20



Delving into Differentiation

I know the doubles and near doubles with sums in the range of 10 to 20.

... recognize amounts flashe

representing a cour

Each player will ha

players. All players

1 can

Directions: Each playe double of t

Materials:

Bingo Card

Ask stude

Teacher Not

drawings to represent the problem.

1 can

Directions Each playe

first player Materials:

Bingo Card

Assessmen

Teacher st

Teacher Note

Directions

Materials: Bingo cards (print)

Assessment Flash a 20 frame

Teacher Notes: Variation: Flash a 20 fr

1 can

5 292 A K.CC.3 Write numb

2.OA.2. Fluently i sums of two one Directions: Each player will

players. All playe

Assessment

Teacher Notes.

Ask student to w

Materials: Bingo cards (pri

> ... recognize numbers 1 to 6 when shown as dot patterns, finger patterns, 5 or 10 frames or numeral. \$ 292.1 K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Directions:

I can

representing a count of no objects).

--- quickly determine the double of 1 through 5 without counting and without materials

K.O.A.2. Solve addition and subtraction word problems, and add and subtract within 10.000

Each player will have 1 Bingo Board. Take turns throwing the dice. Every player will cover the amount rolled. The first player with Bingo wins.

Materials: Bingo Cards (printable), chips, die with regular dot or numeral die (1 to 6)

... recognize numbers 5 to 10 when shown as dot patterns, tally marks, finger patterns, 10 frames or numeral.

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0

Assessment

Flash a regular 5 dot pattern and have student write or say matching number. Repeat for a regular 3 and a regular 6. Note if student can give amounts without counting by 1s.

Teacher Notes

The Kentucky Numeracy Project

4) CLOSING
3) PRACTICAL APPLICATIONS
2) INTERVENTION GUIDE
1) INTRODUCTION

Reflection Questions

1) On what do you base your instructional decisions regarding the development of number sense?

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- 2) How might you use the KNP Intervention Guide for assessing and guiding student numeracy development?
- 3) How might you contribute to changes in your school that would allow you to more effectively develop foundational number sense in all students?

Upcoming KNP Sessions, 3:30 to 4:30 p.m. CT

- January 20 Number Words and Numerals
- February 3 Structuring to Five and Ten
- March 3 Addition and Subtraction
- March 17 Structuring to Twenty
- April 14 Advanced Addition and Subtraction
- May 5 Multiplication and Division
- May 19 Tens and Ones





kcm@nku.edu 859.572.7690