Alice Gabbard





Cindy Aossey

The Kentucky Numeracy Project Session 2 – Number Words and Numerals January 2011





Kris Jarboe The Kentucky Numeracy Project

CLOSING COMPARING NUMERAL IDENTIFICATION NUMBER WORDS INTROLUCTION





Teaching Number in the Classroom with 4-8 year-olds

Robert J. Wright Garry Stanger Ann K. Stafford James Martland



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CENTER FOR M A T I C S ы KENTUCKY M A T H E

Assessment Drives Instruction





The Learning Framework in Number



US Math Recovery Council. Add+Vantage MR Program



First Steps in Doing Inverse Operations

Forward Number Word Sequence

Backward Number Word Sequence





Strengthening Students' Mathematical Foundations

Albany Elementary, Clinton County Schools Submitted by Mathematics Intervention Teacher Tonda Thompson 144 First Graders' MAP Test Number Sense





Albany Elementary Mathematics Intervention Teacher (MIT) Tonda Thompson (pictured left) is excited about the positive effects of leading other primary grades teachers at her school to conduct diagnostic interviews and to design numeracy development instruction according to student need. Albany teachers' dedication to implement Add+Vantage MR school-wide created a huge boost in the number of high-achieving students while substantially reducing the number of low-achieving students (see pie charts above).

While finding time to administer the assessments was a challenge, the information collected by the classroom teachers allowed for greater understanding of exactly why students were not being successful; they could then more efficiently and effectively provide differentiated instruction. Teachers who, in the past, may have started using written number sentences before students gained sufficient foundational concepts of quantity are now tailoring instruction with an eye on student thinking—they are intentionally helping all students make sense of number in order to become adept at advanced mental computation in preparation for success with higher mathematics, including algebra and proportional reasoning.

KCM – facilitating teacher growth for state-wide student success in mathematics: Intervention/Adult Education/Research/Resources Located at Northern Kentucky University; supported by the Kentucky Council on Postsecondary Education and the Kentucky Department of Education http://KENTUCKYMATHEMATICS.ORG Kirsten Fleming, Executive Director - 305 Founders Hall, Highland Heights, KY 41099 - 859.572.7690 The Kentucky Numeracy Project

CLOSING COMPARING NUMERAL IDENTIFICATION

NUMBER WORDS

INTROD JCTION



- **Number Words & Numerals [S]** Structuring **Addition and Subtraction** [M] Multiplication and Division
- Tens and Ones



[N] <u>Number Words & Numerals</u>

[Nf] Number Word Forward [Sequence]

[Nb] Number Word Backward [Sequence]

[Ni] Numeral Identification

7	Nb 113.0	K.CC.1 Count to 100 by ones and by tens.	Counting & Cardinality	Know number names and the	count sequence	numeral track 1-5 (see link for directions)	Lift the flap on the rig backward to 1, raising
8	Nb 113.1	K.CC.1 Count to 100 by ones and by tens.	Counting & Cardinality	Know number names and the	count	numeral track 1-10 (see link for directions)	Open the flap on the ri Count backward to 1. A raise th
)	Nb 113.2	K.CC.1 Count to 100 by ones and by tens.	Counting & Cardinality	Know number names and the	count	numeral track 1-10 (see link for directions)	Raise any flap to reveal from
)	Nb 113.3	C.CC. NO 113 d 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	numeral cards 1-10 (see link)	Place the cards in a sta over the top card and co
L	Nb 113.4	CCC.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	Numeral cards 5-29; two- color numeral roll (with each decade in alternating colors and only one pre-	Turn over a card and cou Use the numeral roll
2	Nb 113.5	K.CC.1 Count to 100 by ones and by tens.	Counting & Cardinality	Know number names and the	count	Numeral cards in the range of 30-100; two-color numeral roll (with each decade in alternating colors	Turn over a card and co Use the numeral roll
				-			Count Around Activity

N = Number Words & Numerals b = number backward

rib 113.4

(ND) 113.5

rub 113.3

100 series also indicates *Number Words & Numeral* strand

rub 113.1

(11) 113.0

Task number 113 **Levels** .0 through .5

r4b 113.3

rub 113.A

r4b 1135

r4b1120

r4b 112.1

r4b 1122



KCAS Standard, Domain & Cluster

K.CC.1 Count to 100 by ones and by tens.

K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). Know number names and the count sequence

Counting & Cardinality

K.CC.1 Count to 100 by ones and by tens.

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

Numeracy Strand, Level & Target

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count.	numora op tracl:			an PHWS	the rang 30.			
	count.	Ĩ		12				

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Backward Number Word Sequence

Count backward, starting at ten.



Backward Number Word Sequence Starting at a number other than ten



Number Word before / after

What number comes **before seven**?



What number comes after eleven?



Dropping Back in NWb

What number comes **before** seven?



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5	Nf 113.3	K.CC.2 Count forwardboqinninq from a qivon numbor within tho known roquonco (inrtoad of havinq to boqin at 1).	Continue Condituality Koncentration and	1	numoral cardr 1-10 (roo link)	Place the cards in astack face down on the table. Turn over the top card and count forward from that number	Hamber Verde (Saruard	Z In 2 Family 1	the range i ta 10.	numbers in the range 1- 10.	ii.i	MIPATA and Incordinate proje StransvalC				Flansgamery									
6	Nf 113.4	K.CC.2 Count forward beginning from a give number within the known requence (instead of having to begin at 1).	Contrady Cardinality Knowedce core of the cond		Numeral cards 5-30; tua-calar numeral rall (uith each decade in alternating calars and anly ane pro-printed numeral per decade) (reo link here far numeral cards and see NF 113.5 numberal track instructions)	Turn over a card and count forward from that number Uro the numera roll to keep trac of the count.	Hamber Words [facuard]	a le 4 RED Puelle PHAS le Thèrej	count forward in the range 1 to 30.	Arkstudent to count forward from variour numbers in the range 1- 30.	ومقاملهم المعمورة ماماه فالمعا	الإيلانية من المحمد المحمد 18. مسيحة مال محمد المحمد ا		When the child reachera printed numeral, he arshe gets support or correction from the numeral.		Linda Montgomery	1.3.11								
7	Nf 113.5	K.CC.1 Count to 100 by oner and by tenr.	Condity & Configuration Knowsky successful the sound		Humoral cardr in the ringe of 30-100; tup- solar numoral rall (a thread decade in alt mating colors and ant maniper decade) (urol vk far Nf 113.4 far card veo link here	Turn over a card and count for Jars until told to rtop. Ure the ny moral roll to keep track of the count.	HauterWerds [forward]	tis Plue Fuellie Meditions hadenef	count forward in the range 1 to 100.	Ark the student to start at variour numbers in the range 1- 100 and count forward until directed to	individual Corresp	الارتباط المراجع المراجع محمد المراجع ال المراجع المراجع		When the child reaches a printed numeral, he orshe gets support or correction from the	Bothany Nool	Linda Montgomery	1.3.11								
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2 Cluster	Sating (ritration & miterialr)	Activitior: Exemplary Laurning Experiencer	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)
2	nmeraltrack 1-5 (ree	(*** eliarstery) Lift the flap on the left to see he number "1". Cront	numeral track 1-5 (see link for directions)	Lift the flap on the right to see the number "5". Count backward to 1, raising each flap to check the count.
	link for directions)	forward to raining oach fup to chock the count. Open the flap o the left to revea the numeral "1".	numeral track 1-10 (see link for directions)	Open the flap on the right to reveal the numeral "10". Count backward to 1. After saying each number word, raise the flap to check.
	numeral track 1-10 (ree link for directions)	Count forward to 10. Aftorsaying oach numbor word, rairo tho flap to chock.	numeral track 1-10 (see link for directions)	Raise any flap to reveal a numeral and count backward from that number.
	numoral track 1-10 (roo link for diroctionr)	Rairo any flap to rovoal a numoral and count forward from that numbor.	numeral cards 1-10 (see link)	Place the cards in a stack face down on the table. Turn over the top card and count backward from that number.
	numoral cardr 1-10 (roo link) Numoral cardr 5-30;	Place the cardr in astack face down on the table. Turn over the top card and count forward from that number.	Numeral cards 5-30; two-color numeral roll (with each decade in alternating colors and only one pre-printed numeral per decade) (see link here for numeral cards and see Nf 113.5 numberal track instructions)	Turn over a card and count backward from that number. Use the numeral roll to keep track of the count.
	two-color numeral roll (with each decade in	Turn over a card		
	only one pro-printed numeral per decade) (ree link here for numeral cardr and see Nf 113.5 numberal track instructions) Humeral cardr in the	from that number Use the numeral roll to keep trac of the count.	Numeral cards in the range of 30-100; two-color numeral roll (with each decade in alternating colors and only one pre-printed numeral per decade) (use link for Nf 113.4 for cards, see link here for numeral roll)	Turn over a card and count backward until told to stop. Use the numeral roll to keep track of the count.
	inge of 30-100; two- color numeral roll (cith each decade in	Turn over a card and count for uard until told to rtop.		

ECAS CILITY	Sarting (ritrotion & motorialr)	Activitias: Exemplary Laurning Experiences ("Jee glazz-ry)		
	n moral track 1-5 (soo link før diroctiøns)	Lift the flap on the left to see the number "1". Count forward to raising each flap to check the count.	Ramber Wards [baruard]	
	numoral track 1-10 (roo link for diroctionr)	Open the flap o the left to revea the numeral "1". Count forward to 10. Aftersaying each number word, raire the flap to check.	MaskerWards [baruard]	
	numoral track 1-10 (roo link for diroctionr)	Raire any flap to reveal a numeral and count forward from that number.	Renter Wards (harward)	
	numoral cardr 1-10 (roo link)	Place the cardrin astack face down on the table. Turn over the top card and count forward from that number.	Ramber Wards (baruari	
	Numeral cards 5-30; two-color numeral roll (with each decade in alternating colors and only one pre-printed numeral per decade) (ree link here for numeral cards and see Nf 113.5 numberal track instructions)	Turn over a card and count forward from that number Ure the numeral roll to keep trac of the count.	Unables Wards (beruard)	
	Humoral cardr in the runge of 30-100; two- color numoral roll (c ith each decade in	Turn over a card and count for yard	[buruad]	

Setting (situation & materials)

numeral track 1-5 (see link for directions)

Activities: Exemplary Learning Experiences (*see glossary)

Lift the flap on the left to see the number "1". Count backward from 5, raising each flap to check the count.



Numeral cards in the range of 30-100; two-color numeral roll (with each decade in alternating colors and only one pre-printed numeral per decade) (use link for Nf 113.4 for cards, see link here for numeral roll)

Turn over a card and count backward until told to stop. Use the numeral roll to keep track of the count.

CAS CILLER	Sating (riteation 2 m/torialr)	Activitior: Exemplary Laurning Experiencer (****	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)
	n meral track 1-5 (ree	elarsery) .ift the flap on the left to see the number "1". Count	numeral track 1-5 (see link for directions)	Lift the flap on the left to see the number "5". Count backward from 5, raising each flap to check the count.
-	link for directions)	forward to rairing oach fop to chock the count.		Open the flap on the left to reveal the numeral "10".
anal accurac	numeral track 1-10 (ree link for directions)	Opon the flap o the left to revea the numeral "1". Count forward to 10. Aftersaying each number word, raire the flap to check.	for directions)	Count backward from 10. After saying each number word, <u>raise the flap to check</u> .
	numoral track 1-10 (roo link for diroctionr) fi	Raire any flap to reveal a numeral and count forward rom that number.	numeral track 1-10 (see link for directions)	Raise any flap to reveal a numeral and count backward from that number.
	i numeral cards 1–10 (see link) a fi	Place the cardr in astack face down on the table. Turn over the top card and count forward rom that number.		table. Turn that number.
	Numeral cards 5-30; tuo-color numeral roll (uith each decade in alternating colors and a only one pro-printed fr numeral per decade) (ree link here for numeral cards and see Nf 113.5 numberal track instructions)	Turn over a card and count forward rom that number Ure the numeral roll to keep trac of the count.		
	Yumoral cards in the Lange of 30-100; two- color numoral soll (with each decade in	Turn over a card ind count fo Lard until told to rtop.	Numeral car roll (with each decade in alternating colors and only one pre-printed numeral per decade) (use link for Nf 113.4 for cards, see link bare for numeral roll)	Turn over a card and count backward until told to stop. Use the numeral roll to keep track of the count.

CAS CILLE	Sarting (ritration & matorialr)	Activitior: Elemplary Levraina Experiencer (***	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)
	numeral track 1-5 (ree	qlarr ry) Lift the flap in the left to see the number "1". C sunt	numeral track 1-5 (see link for directions)	Lift the flap on the left to see the number "1". Count forward to 5, raising each flap to check the count.
	link for directions)	Forward to raining oach Fiip to chock the count. Open the flap o	numeral track 1-10 (see link for directions)	Open the flap on the left to reveal the numeral "1". Count forward to 10. After saying each number word, raise the flap to check.
	numeral track 1–10 (ree link før directions)	the left to revea the numeral "1". Count forward to 10. Aftersaying each number word, raire the	numeral track 1-10 (see link for directions)	Raise any flap to reveal a numeral and count forward from that number.
	numoral track 1–10 (roo link for diroctionr)	flap to chock. Raire any flap to reveal a numeral and count forward from that number.	numeral cards 1-10 (see link)	Place the cards in a stack face down on the table. Turn over the top card and count forward from that number
	numoral cardr 1-10 (roo link) Numoral cardr 5-30; tuo-color numoral roll	Place the cards in astack face down on the table. Turn over the top card and count forward from that number.	Numeral c decade in numeral per see N 5 6 7 8	Turn over a card and count forward from that number. Use the numeral roll to keep track of the count.
	(with each decade in alternating colors and only one pre-printed numeral per decade) (ree link here for numeral cards and see Nf 113.5 numberal track instructions) Humeral cards in the unge of 30-100; two-	Turn over a card and count forward from that number Ure the numeral roll to keep trac of the count. Turn over a prd	Numeral cards i roll (with each c pre-printed nume cards, : 13 14 15 16	urn over a card and count forward until told to stop. Use the numeral roll to keep track of the count.
	(eitheach decade in	and count for uard until told to rtop.		

ECAS Clarke	Sating (ritratiun 2 m/torialr)	letivitiar: E.omplary Lograing Experiencer ("loo glazzery)	Setting (situation & materials)	Activities: Exemplary Learning Experiences elossary)
	n moraltrack 1-5 (roo linkfor diroctionr)	Lift the flap on the left to see he number "1". Count forward to raining each flop to check the	numeral track 1-5 (see line 2	8 21 22 -ber "1". Count rount. 20 Count
	numeral track 1-10 (ree link for directionr)	count. Open the flap of the left to revea the numeral "1". Count forward to 10. After saying each number word, raire the	numeral track 1-10 (25 26 27 20 27
	numeral track 1-10 (ree link for directionr)	Rairo any flap to rovoal a numoral and count forward from that numbor.	numeral cards 1-10 (see link,	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	numoral cardr 1-10 (roo link)	Place the cards in astack face down on the table. Turn over the top card and count forward from that number.	numeral cards 5-30; two-color numeral roll (with each decade in alternating colors and only one pre-printed	Turn over a card and count forward from that number.
	Numeral cards 5-30; two-color numeral roll (with each decade in alternating colors and only one pre-printed numeral per decade) (see link here for numeral cards and see Nf 113.5 numberal	Turn over a card and count forward from that number Use the numeral roll to keep tract of the count.	numeral per decade) (see link here for numeral cards and see Nf 113.5 numberal track instructions)	Use the numeral roll to keep track of the count.
	track instructions) Humoral cards in the Uniqo of 30-100; two- color numoral soll (a ith oach docado in	Turn over a card and count for Jard until told to rtop.	Numeral cards in the range of 30-100; two-color numeral roll (with each decade in alternating colors and only one pre-printed numeral per decade) (use link for Nf 113.4 for	Turn over a card and count forward until told to stop. Use

ECAS Cluder	Secting (ritration & motorialr)	Activitior: Ecomplary Lorraing Experiencer ("Lee glazz-ry)	Setting (situation & materials)	Activities: Exemplary Learning Experiences glossary)
and accord.	n moral track 1-5 (roo link for diroctionr)	Lift the flap in the left to see he number "1". Count forward to raising each for to check the count.	numeral track 1-10 (see 98 997 1 97 98 997 1 numeral care 02 103 10	Vis 34 count forward from 37 35 36 uble. Turn at number.
and searces	numoral track 1-10 (roo link for diroctionr)	Open the flap of the left to revea the numeral "1". Count forward to 10. Aftersaying each number word, raire the flap to check.	Numeral cards 5-30; two-color 105 106 14 decade in alternating colors and numeral per decade) (see link here	41 + 42 + 40 5 + 46 + 40, im that number. Use of the count.
	numeral track 1-10 (ree link for	Raire any flap to reveal a numeral and count forward	see Nf 113.5 numberal track	47 48
	numoral cardr 1-10 (roo link)	from that number. Place the cards in astack face down on the table. Turn over the top card and count forward from that number.	Numeral cards in the range of 30-100; two-color numeral roll (with each decade in alternating colors and only	Turn over a card and count forward until told to stop.
	Numeral cards 5-30; two-color numeral roll (with each decade in alternating colors and only one pre-printed numeral per decade) (see link here for numeral cards and see Nf 113.5 numberal	Turn over a card and count forward from that number Ure the numeral roll to keep track of the count.	decade) (use link for Nf 113.4 for cards, see link here for numeral roll)	track of the count.
	track instructions) Humoral cards in the lange of 30-100; two- color numeral soll (with each decade in	Turn over a card and count for Jard until told tortoo.		

Carrie G.

"I use a numeral track to help students identify <u>before</u> and <u>after</u> [NWB & NWA]. I also use it to help students learn number sequence."

Gwen M.

"I use the numeral track to support students in problem areas. For example, one student had problems with the 60's, so I made sentence strips focusing only on that family. I have also made sequences for counting by 2's, 5's and 10's (on and off the decade)."



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Count and b;	to 100 ; tons.	Constitute & Constituting	Kana anaker asara and the anad argument.	numeral track 1-5 (ree link for directionr)	Lift the flap on the left to see the number "1". Coun forward to 5, rairing each flap to check the count.	Hamber Words Secured	Nettow	Enroyal PHAS Infant	count forwardin horango 1to 5.	Ark the student t count forwer from varioe numbers in the range of 1 5	indicident Council george/	ayna ar yn	ajral/Hattladolken. HaneritteakDireklineA				Linda Montqomery	1.3.11										
Count and b	to 100 ; tons.	Coording & Condituality	Kana anakar azara and Iko anal argarar	numoraltrack 1-10 (roolinkfar diroctianr)	Open the flap on the left to reveal the numeral "1". Count forward to 10. After saying each number word, raise the flap to check.	HankerWords [farword]	11-1 VOL10W	Later Mostacture (an Mole	count forward in the range 1 to 10.	Arkstudentts countforward from 1 to 10	منه الملك المريم الماليات	h.arq/adrear sagrajrah/Ha	hra. <u>raliaashad</u> a															=
Count and b;	to 100 ; tons.	Coording & Condituality	K	numeral track 1-10 (ree link før directionr)	Raire any flap to reveal a numeral and count forward from that number	Hamber Wards [farmed]	41"S VELLOW	lateracticale PHMS (a) (e)	count forwardin the range 1 to 10.	Arkstudent to count forward starting from variour numbers in the range of 1 10.			(*	"I [≮] S€	CAN ee g	loss	" ary)			A :	sse L	ess .ea	me Irni	nt ing	fo	r		
).2 Ca d boqii jivon n tho kr tho kr to (inst to boqi	unt hning umbor iown ioad of n at 1).	Contrad Contradity	K	numeral cardr 1-10 (ree link)	Place the cards in astack face down on the table. Turn over the top card and count forward from that number	Hamber Words [farmed]	21-3 YELLOW	Tanite PHASE La Ta	count forwardin tho rango 1to 10.	Arkstudentts countforward startingfrom variour numbersin the range 1- 10.		bilgittuur.hqual beeraliad daafaa	projent/Hall SHaaredCardella	а			Linda Montqomery	1.3.11										
).2 Car d boqii jivon n tho kr to (inrt to (inrt	unt umbor vaun oadaf n at 1).	Constitue & Canadia ality	Kana andre annen and the anal arquerae.	Numoral cards 5-30; tuo-color numoral rall (uith each decade in alternating colors and anly one pro-printed numoral por decade) (ree linkhere for numoral cards and see Nf 113.5 numberal track instructions)	Turn over a card and count forwar from that number Ure the numeral roll to keep track of the count.	Hamber Wards [faruard]	114 850	Facily PHMS In This IV	count forward in the range 1 to 30,	Arkstudent tr count forward from variour numberr in the range 1- 30.	a da	Allyst Annual Squall Second Sciences and Associated Association (Second Sciences Associated Association (Second	SHarral Card Ala 112, p46		When the child reacher a printed numeral, he arshe gets support or correction from the numeral.		Linda Montqomory	1.3.11										
Count Sh	to 100 eet1	and a state	Sheet	Numoral cardr in the range of 30-100; tuo- color numoral roll (uitheach decade in 2 Sheet3	Turn over a card and count forward until told tortop.	la ƙaruard	stur	fair hader	count Iorwardin	Ark tho student to start at variour		Barry/Subsected	1, alt		When the child reacher a printed		. Linda		Count	14			50%				▶	
6		3	,	Kentuck.	🛛 🐼 4 M	icro	•	16) Interver	6	Micro	sof	16	2	Micr +	🗐 Doo	ume	Searc	h Deski	top			0	« 💽	e ⁰ 😪	2 2	:18 PN	9 1

"I CAN" (*see glossary)	Assessment for Learning
count backward in the range 1 to 5.	Ask the student to count backward from various numbers in the range of 1-5.
count backward in the range 1 to 10.	Ask student to count backward from 1 to 10
count backward in the range 1 to 10.	Ask student to count backward starting from various numbers in the range of 1-10.
count backward in the range 1 to 10.	Ask student to count backward starting from various numbers in the range 1-10.
count backward in the range 1 to 30.	Ask student to count backward from various numbers in the range 1-30.
count backward in the range 1 to 100.	Ask the student to start at various numbers in the range 1-100 and count backward until directed to stop.

"I CAN" (*see glossary)	Assessment for Learning
count backward in the range 1 to 5.	Ask the student to count backward from various numbers in the range of 1-5
count backward in the range 1 to 10.	Ask student to count backward from 1 to 10.
count backward in the range 1 to 10.	Ask student to count backward starting from various numbers in the range of 1-10.
count backward in the range 1 to 10.	Ask student to count backward starting from various numbers in the range 1-10.
count backward in the range 1 to 30.	Ask student to count backward from various numbers in the range 1-30.
count backward in the range 1 to 30 count backward in the range 1 to 100.	Ask student to count backward from various numbers in the range 1-30. Ask the student to start at various numbers in the range 1-100 and count backward until directed to stop.
"I CAN" (*see glossary)	Assessment for Learning
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count backward in the range 1 to 5.	Ask the student to count backward from various numbers in the range of 1-5
count backward in the range 1 to 10.	Ask student to count backward from 1 to 10.
count backward in the range 1 to 10.	Ask student to count backward starting from various numbers in the range of 1-10.
count backward in the range 1 to 10.	Ask student to count backward starting from various numbers in the range 1-10.
count backward in the range 1 to 30.	Ask student to count backward from various numbers in the range 1-30.
count backward in the range 1 to 100.	Ask the student to start at various numbers in the range 1-100 and count backward until directed to stop.

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-	KNP Eatry D	B Kentucky Common Core Academic Standard (KCAS) ("zee glazzary)	ECAS 0	ECAS Cialar	E Satting (rituation & matarialr)	F Activities: Exemplary Learning Experiences ("ree glazzery)	G 13HTA	Construct Level	Internet Target	J "I CAH " ("z++ qlazz ery)	K Arrerra at fas Learains	•	Stated Granting		P P	-C	Q achar Intar	R Submitte d By	S Revisuer and Comments	T Date Parte d	U	V	W	×	Y	Z	AA	,
2	Nf 113.0	K.CC.1 Count to 100 by oner and by tenr.	Conding & Condinatily	Kana anaker asara and Iko anad arqueare.	numoral track 1-5 (zeo link for directionz)	Lift the flap on the left to see the number "1". Count forward to 5, rairing each flap to check the count.	Hamber/Wards [forward]	WOTTAN	Encrysol PHMS In Test	count forwardin the range 1to 5.	Ark the student is count for a from varia numberri the range of 5	a urd wr f1.	ubult also	NIP://uuu.Aga/h.eeg/al resealla/Ada/aare.age ajaal/H.attuad0leee. H.aeralT.eakDiredlaaeA					Linda Montqomery	1.3.11								
3	Nf 113.1	K.CC.1 Count to 100 by oner and by tenr.	Condition Conditionality	K	numoral track 1-10 (zoo link far diroctianz)	Open the flap on the left to reveal the numeral "1". Count forward to 10. Aftersaying each number word, raire the flap to check.	Hamber/Verda (farwerd)	11-1 VELLOW	Indial PHAS Inford (In HAR)	count forwardin the range 1 to 10.	Arkstudart countfork from 1 to 1	9	individual (general / ubale alana	Nigotowa Agadharay (alexe aliad daalaan ee aqeajeal (46 141 aad Olexea Haare Jite ad Olexea	.7				Linda Montgomery	1.3.11								
4	Nf 113.2	K.CC.1 Count to 100 by oner and by tenr.	Contrary Contractily	K	numeral track 1-10 (ree link for directionr)	Rairo any flap to rovoal a numoral and count forward from that numbor.	Hamber/Verda [farwed]	41" 2 YELLOW	talerandiale PHMS (21) (22) (denya kank ƙan MMA)	count forwardin the range 1 to 10.	Arkstuder countforce startingf variou numbers the range 10.	and an officer		Might ann Angarth ang A airean liad Aantanes agrairait Matt Lad Olio ar	4				Linda Montgomery	1.3.11								
5	Nf 113.3	K.CC.2 Count forward beginning from a given number within the known requence (inrtead of having to begin at 1).	Contrary Contrality	K	numoral cardr 1–10 (roo link)	Place the cardrin artack face down on the table. Turn over the top card and count forward from that number.	Hamber Wards [farmed]	VOTIAN S"12	Public PHOS Inford	count forwardin the range 1 to 10.	Arkstude t countfor startingfo variou number i the range 1 10.	To B 2 B		Mig/Count-Age/Integration Internation/Andreastan project/Andreastan StreastalCardelle/Style	4	Ī)		Linda Montqomery	1.3.11								
6	Nf 113.4	K.CC.2 Count forwardboginning fram a given number uithin the known equence (intead of having to begin at 1).	Conding & Cardinality	Kananakan sana salaha sanal saya saya	Numeral cards 5-30; tua-calar numeral rall (uith each decade in alternating calars and anly ane pro-printed numeral por decade) (see link here far numeral cards and see Nf 113.5 numberal track instructions)	Turn over a card and count forward from that number. We the numeral roll to keep track of the count.	Hamber Words [farused]	31.4 RED	Public PHMS In Thirty	count forward in the range 1to 30.	Arkstuder countforu from vari: numbersi the range 30.	to rd u	أنطأت أطمالا ليحمعها الملالة فأعمد	Mysteau Andlerediaethe Annessaysisation Shares Certerlist Byte		n de Recent Rece	hen the child aches a rinted neral, he rhe qets pport or rrection om the umeral.		Linda Mantqamory	1.3.11								
	13.5	K.CC.1 Count to 100	and and a		Numoral cardr in the range of 30-100; two- color numoral roll (with each decade in	Turn over a card and count forward until told to stop.	la férensed	ארחב	Surface of	count forward in	Ark the student s start a variou			المعركة الحمد الم يومن ماركة معد الهالة		W) 74- 81	hon tho child achor a rintod		Linda									
Rea	() ady	M Sheet1		Sheet	2 🖌 Sheet3 📈	V															Count	14			50%		U	
đ -)	Sta	rt 🏉 🕞	3	>	> 🏉 The Kent	<u> </u> 4 Mi	icro.	•) Interven	6	Mi	cros	of	2	Mic	r •	🖳 Doci	ume	Searc	:h Desk	top		۶	2	« 😡	<u>o 8</u> .):	

Student Grouping	Video Link	Print Link	Interactive Website	Reference
		http://www.kymath.org/intervention/doc/n umeracyproject/Nn111andOthers- NumeralTrackDirectionsAndExample.pdf		
Individual		http://www.kymath.org/intervention/doc/n umeracyproject/Nn111andOthers- NumeralTrackDirectionsAndExample.pdf		[7]
small group		http://www.kymath.org/intervention/doc/n umeracyproject/Nn111andOthers- NumeralTrackDirectionsAndExample.pdf		[7]
whole class		http://www.kymath.org/intervention/doc/n umeracyproject/Nn109- 5NumeralCards1to112.pdf		[7]
		http://www.kymath.org/intervention/doc/n umeracyproject/Nn109- 5NumeralCards1to112.pdf		
		http://www.kymath.org/intervention/doc/n umeracyproject/NumeralRoll.pdf		



Teaching Number in the Classroom with 4-8 year-olds



p. 45 – Numeral Track Activity "What Comes Next?"

The Kentucky Numeracy Project

CLOSING COMPARING NUMERAL IDENTIFICATION NUMBER WORDS INTROL JCTION



Numeral Identification

Can you tell me which number is underlined?

1, 2, 3, 4, <u>5</u>, 6, 7

That's a 5 Can you tell me what number this is?



Numeral Recognition

Can you tell me which number is the 5?



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t NP Fatra	Ke Aca	ntucky Co demic Star ("see gl	ommon Co ndard (KC lossary)	Dre (income CAS) as a second	KCAS Clurter	Setting (situation & materials)	Activities: Ex Expe (*see	emplary Learning eriences glossary)	(fr ATHR) Contract Lavel	(fram ATHR) Nameracy Tarqat (fram ATHR)	"I CAN" ("see glossary)	Assessment fo Learning ("see glossary) (j	Vidan Link	Print Link	Interactiva Vebrita Reference	Teacher Notes ("see glossa	rg)	Submitted By	Revie v er and Comments	Date Posted	
U 801 IN 2	K.CC. Repre a repres	3 Write num esent a numb written nume senting a cou	ibers from (ber of objec ral 0-20 (wit unt of no ob	to 20. ts with h 0 hiects).	Knau number namer and the cauntrequence	numeral cards 1-6, dot cards 1 6, tally mark cards 1-6, finger pattern cards 1-6, and a dot die (see link)	Scatter all cards face Teacher will roll the die a 6 range. Students will among the numeral car cards, and	eup at random on the table. and call out a number in the 1- take turns finding matches rds, dot cards, finger pattern tally mark cards.	Numoral Idontification 0 YELLOW	Numeral ID to 'ten'	match numeral cards 1- 6 to appropriate dot cards, finger patterns, and	<i>Flash</i> " cards in the ra 6 with numerals, dots marks, or finger patter students to identil	nge 1- , tally ns for popopul y.		nku.odu/*kem/vioutapi o.php?f-13%t-594					Linda Montgomery and Mary Helen Hodges	1.3.11	
3 Ni 108 1	K.CC. Repre a repres	3 Write num esent a numb written nume senting a cou	ibers from (ber of objec ral 0-20 (wit unt of no ob	to 20. ts with h 0 hjects).	Knau number namer and the cauntrequence	numeral cards 5-10, dot cards 5-10, tally mark cards 5-10, finger pattern cards 5-10, die labeled 5-10 (see link)	Scatter all cards face Teacher roll the die and range. Students will t among the numeral car cards, and	up at random on the table. I call out a number in the 5-10 I ake turns finding matches rds, dot cards, finger pattern tally mark cards.	NumoralIdontification 0 to 1 VELLOW	Numerali ta 'ten'	match numeral cards 5-10 to appropriate dot cards, finger patterns, and	<i>Flash</i> * cards in the ra 10 with numerals, dots marks, or finger patter students to identi	nge 5- s, tally ns for pipipi fy.		nku.eduf/kamfvie.utapi e.php?f-13%t-594		A spinner may be used in place of the die to generate 10.	a number in range 5 to		Linda Montgomery and Mary Helen Hodges	1.3.11	
C BUT IN	K.Cl fro know	C.2 Count fo m a given nu n sequence (to begi	orward begi Imber within (instead of I in at 1).	nning ithe official o	Knau number namer and the count requence	numeral tiles 1-30 or numeral oards 1-30, containers labeled "ones," "teens," "twenties," "thirties"	Scatter the tiles (or cai Students will take turns the appropriate <i>decode</i> tiles have been placed sort the tiles into sequ aloud the sequence for still in order, turn 1 to 3 should again say the backward. Contain the sea	rds) face down on the table. drawing a tile and placing it in e/amily 'o ontainer. After all students will take a family, uential order and then read ward and backward. With tiles tiles face down. Students sequence forward and/or turning over 1.5 tiles with guence unit most or all tiles	Numeral Identification 1to 2 RED	Numorali ta 'tuonty'	identify numerals 1-30 and count forward and backward 1-30.	Show a card in the 1t range (such as 12 or 2 asks the student to id the number, its <i>dec</i> <i>family</i> and to nar another number in the family.	o 30 3) and entify ade same same		http://www.kymath.org/interve ntion/doc/numeracyproject/N umeralRoll.pdf		Sometimes students who are struggling to read teen by looking beyond the teens. This activity may help stu pattern within the teen grouping by seeing that pattern Similarly numerals in the range 10 to 40 could be sorte print link for directions) can be used for students to ol numerals into family groups.	umbers are supported lents see that there is a epeated in the twenties. I. A <i>numeral roll</i> [*] (see eok their placement of		Linda Montgomery and Mary Helen Hodges	1.3.11	
5	к.сс	.1 Count to 1 ter	100 by ones ns.	and by Gardinality	Knau number namer and the count requence	numeral cards or tiles in any three or four decade groups (i.e., 30-59, 40-69, 60-39, etc.), containers labeled with each decade	Soatter the tiles (or can Students will take turns the appropriate <i>decode</i> tiles have been placed sort the tiles into sequ aloud the sequence for still in order, turn to 3 should again say the backward. Control the sec	dation of the second se	Numeral Identification 2 ta 3 BLUE	Numoralr ta '100'	identify numerals 1-100 and count forward and backward 1-100.	Show a numeral card i to 100 range (such as 82) and asks the stud identify the number, <i>decade family</i> * and to another number in the family.	n the 1 64 or ent to its same same		http://www.kymath.org/interve ntion/doc/numeracyproject/N umeralPoll.pdf		A non-consecutive grouping of cards (such as 22, 25, so on) may be used to increase the complexity of the using a non-consecutive set, after the numbers are o asked to count from one number (forward or back) t <i>.numeral/cell</i> " (see print link for directions) may be us determine how to sort or sequence the	33, 36, 39, 41, 44, 46 and sequencing task. When dered, students can be b the next number. A ed by students as they sumerals.		Linda Montgomery and Mary Helen Hodges	1.3.11	
9 Ni 108 4	2.NB 100 numb	F.3. Read and 00 using base er names, an	d write numi e-ten numei nd expandeo	bers to rals, liform.	Understand place value	numeral cards in the range 1 to 1,000 - a consecutive grouping spanning 1 to 3 decade families. (i.e. 340-369 or 835-844).	Scatter the cards on ta card and read the nun together to sequence of forward and backward. to 3 cards face down. S sequence forward and/c over 1-3 cards with stu until most or all of 1	ble. Each student will pick a nber aloud. Students work ards then read the sequence With cards still in order, turn 1 tudents should again say the vr backward. Continue turning udents saying the sequence the cards are face down.	Numeral Identification 3 to 4 GREEN	Numorale ta '1,000'	identify and order numerals in the range 1- 1,000	Show three numeral c the 1 to 1,000 range (s 602, 254 and 852) and the student to read sequence the nume	ards in ich as i den i d		http://www.senteacher.org/		Numeral cards can be created by hand or online us website at http://www.senteacher.org/ If using the w maths" link, then click on "Number cards". To create cards, enter a starting number (such as 340) and set th increase complexity in the activity, use a step number create a set of non-consecutive cards for students to use fewer cards at first. If desired, have students so /amilies' first and then sort cards within each <i>cards</i> , close enough together, ask students to count (forw one card to the card after or before it. Similar activity regular skip counting sequences. The cards can be co	ng the Sen Teacher ebsite, click on "print a consecutive set of e step number to 1. To such as 13, 23 or 47 to order. You may wish to t cards into <i>century</i> <i>gx/amily</i> [*] . If cards are if or backward) from ies can be done with reated by using a step	Kris Jarboe	Cindy Aossey and Alice Gabbard	1.3.11	
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Read	У																			비번 64% (+

Ready

N = Number Words & Numerals i = Numeral Identification

Ni)108.3

Ni)108.4

Ni)108.2

100 series also indicates Number Words & Numeral strand

Ni)108.0

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	KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	VCAS Domain			MCAS Cluster	
	Ni 108.0	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 & Cardinal the		Know nimber names and	the mint waiteness	nie onnic sednetre
	Ni 108.1	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	Know number names	and the count	sequence
	Ni 108.2	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
	Ni 108 3	K.CC.1 Count to 100 by ones and by tens.	Counting &	Cardinality	Know number	names and the	count sequence
	Ni 108.4	2.NBT.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	Number &	Operations in	l Inderstant nlace	contract and the	אמותב

KCAS Standard, Domain & Cluster

108.0	K.CC.3		
108.1		Counting &	Know number names and the
108.2	K.CC.2	Cardinatity	count sequence
108.3	K.CC.1		
108.4	2.NBT.3	Number & Operations in Base Ten	Understand place value

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		G7		• (0	f _x							~							-					-	2
	KNP Entry	Kentu Acader (B nic Standar see glossa	on Core d (KCAS) iry)	KCAS Damain KCAS Clurter	Setting (situation & ma	terials)	A	Activities: E Ex ("se	F Exemplary Learni periences e glossary)	ing i	(fram ATHR)	(fram.AVMR) H Mumaracy Tarqat	"I CAN" ("see glossary)	K Assessmen Learning ("see gloss	for ary)	T N	Print Link	latoractivo Vebrito	P U Teacher Notes ("see	lossary)	Submitted By	S Reviewer and Comments	Date Posted	
	Ni 108.0	K.CC.3 W Represer a writt represent	rite numbers f at a number of en numeral 0-2 ing a count of	rom 0 to 20 objects with 20 (with 0 no objects)	Caunting & Cardinality Knau number namer and the cauntrequence	numeral cards 1-6, d 6, tally mark cards 1 pattern cards 1-6, a die (see link	ot cards 1- -6, finger nd a dot .)	Scatte Teacher 6 range among l	er all cards fa will roll the div e. Students w the numeral o cards, an	ce up at random on e and call out a numl ill take turns finding ards, dot cards, fing d tally mark cards.	the table. ber in the 1- matches ler pattern	Numeralldentification	0 YELLOW Numeral ID ta 'ten'	match numeral cards 1 6 to appropriate dol cards, finger patterns, and	 <i>Flash</i> " cards in th 6 with numerals, d marks, or finger pa students to ide 	e range 1- ots, tally terns for ntify.	uhalo claur	nku.odu/fkem/vioutapi s.php?f-13%t-594					Linda Montgomery and Mary Helen Hodges	1.3.11	
	3 Ni 108.1	K.CC.3 W Represer a writt represent	rite numbers f it a number of en numeral 0-3 ing a count of	rom 0 to 20 objects with 20 (with 0 no objects)	Counting & Cardinality Know number namer and the countrequence	numeral cards 5-10, 5-10, tally mark ca finger pattern cards labeled 5-10 (se	dot cards :ds 5-10, : 5-10, die e link)	Scatte Teacher range, among l	er all cards fai roll the die ar Students wi the numeral o cards, an	e up at random on l nd call out a number II take turns finding n ards, dot cards, fing d tally mark cards.	the table. in the 5-10 natches Ier pattern	Numeral Identification	0 ta 1 YELLOW Numeralirta 'ten'	match numeral cards 5-10 to appropriate dol cards, finger patterns, and	<i>Flash</i> " cards in th 10 with numerals, c marks, or finger pa students to ide	e range 5- ots, tally tterns for ntify.	uhalo clarr	nku.edu/"kem/vieutapi e.php?f-13%t-594		A spinner may be used in place of the die to g 10.	nerate a number in range 5 to		Linda Montgomery and Mary Helen Hodges	1.3.11	
	* Ni 108.2	K.CC.2 from a known se	Count forward given number quence (inste to begin at 1)	l beginning within the ad of having I.	Counting & Cardinality Knou number namer and the count requesce	numeral tiles 1-30 o cards 1-30, cont labeled "ones," " "twenties," "thii	numeral ainers teens," ties"	Scatter Students the appr tiles ha sort th aloud the still in o shoul back student	the tiles (or o swill take turn opriate <i>deca</i> we been place e tiles into se e sequence fo order, turn 1 to ld again say th ward. Continu s saving the s	ards) face down on s drawing a tile and p <i>de farwily</i> " containe ed, students will take quential order and tl rward and backward o 3 tiles face down. S ie sequence forward ie turning over 1-3 til evuence until most	the table. olacing it in r. After all e a family, hen read d. With tiles Students d and/or es with or all tiles	Numeral Identification	1ta 2 RED Numorali ta 'tuonty'	identify numerals 1-30 and count forward and backward 1-30.	Show a card in th range (such as 12 of asks the student to the number, its <i>a</i> <i>family</i> and to another number in family.	e 1 to 30 or 23) and o identify <i>lecade</i> name the same		http://www.kymath.org/interve ntion/doc/numeracyproject/N umeralPoll.pdf		Sometimes students who are struggling to re by looking beyond the teens. This activity may pattern within the teen grouping by seeing that Similarly numerals in the range 10 to 40 could t print link for directions) can be used for stude numerals into family g	d teen numbers are supported lep students see that there is attern repeated in the twentie sorted. A <i>numeral roll</i> " (see s to check their placement o pups.	1 a 5. f	Linda Montgomery and Mary Helen Hodges	1.3.11	
	2 Ni 108.3	K.CC.1 C	ount to 100 by tens.	ones and b	Caunting & Cardinality Knau number namer and the caunt requesce	numeral cards or ti three or four decad (i.e., 30-59, 40-69, 60 containers labeled decade	es in any e groups I-99, etc.), with each	Scatter Students the appr tiles ha sort th aloud the still in o shoul back student:	the tiles (or o s will take turn ropriate <i>deca</i> we been place e tiles into se e sequence fo order, turn 1 to ld again say th ward. Continu s saying the s	ards) face down on s drawing a tile and p de farmily " containe ed, students will take quential order and ti urward and backward o 3 tiles face down. S te sequence forward te turning over 1-3 til equence until most	the table. olacing it in r. After all e a family, hen read d. With tiles Students d and/or es with or all tiles	Numeral Identification	2 ta 3 BLUE Numorair ta 100'	identify numerals 1-100 and count forward and backward 1-100.	Show a numeral ca to 100 range (such 82) and asks the s identify the numl <i>decade family</i> * an another number in family.	rd in the 1 as 64 or rudent to er, its 1 to name the same		http://www.kymath.org/interve ntion/doc/numeracyproject/N umeralPoll.pdf		A non-consecutive grouping of cards (such a: so on) may be used to increase the complexit using a non-consecutive set, after the numbe asked to count from one number (forward on <i>numeral rad"</i> (see print link or directions) determine how to sort or seque	22, 25, 33, 36, 39, 41, 44, 46 an of the sequencing task. When a are ordered; students can b back) to the next number. A be used by students as they be the numerals.	d ,	Linda Montgomery and Mary Helen Hodges	1.3.11	
	Ni 108.4	2.NBT.3. 1000 u: number n	Read and write sing base-ten i arnes, and exp	numbers to numerals, anded form		numeral cards in th to 1,000 - a cons grouping spannin decade families. (ie or 835-844	e range 1 ecutive g 1 to 3 , 340-369 I.	Scatter card a together forward to 3 card sequence over 1- until	the cards on ind read the n r to sequence and backward ds face down. e forward and 3 cards with s I most or all o	table. Each student umber aloud. Studer cards then read the I. With cards still in c Students should ag for backward. Conti tudents saying the s f the cards are face	will pick a nts work sequence order, turn 1 ain say the nue turning sequence down.	NumeralIdentification	3ta 4 GREEN Numoralt ta 1,000'	identify and order numerals in the range 1- 1,000	Show three numer: the 1 to 1,000 range 602, 254 and 852) the student to re sequence the nu	I cards in (such as and asks ad and merals.		http://www.senteacher.org/		Numeral cards can be created by hand or or website at http://www.senteacher.org/ if usi maths" link, hen click on "Number cards." T cards, enter a starting number (such as 340) a increase complexity in the activity, use a step create a set of non-consecutive cards for stu use fever cards at first. If desired, have stud /amilies " first and then sort cards within eac close enough together, ask students to cou one card to the card after or before it. Smill regular skip counting sequences. The cards	line using the Sen Teacher the website, click on "print rearea a consecutive set of d set the step number to 1. To umber such as 13, 23 or 47 to nnts to order. You may wish it it sort or ads into <i>eventury</i> <i>century family</i> ". If cards are clotward) from advitties can be done with an be created by using a step	Kris Jarboe	Cindy Aossey and Alice Gabbard	1.3.11	
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1	Kentucky Common Academic Standard (i ("see glossarg	Core (CAS) (KCAS C. ter	Setting (situation & materials)	Activities: Exemplary Learning Experiences ("see glossary)	Humaracy Streed (fram AVHr Canatyr (Lave)	(fram ATHR)	"I CAN" ("see glossary)	Assessment for Learning ("see glossary)	Studant Grauping Viden Link	Print Link	latorectivo Volkrito P. 6	Teacher Notes ("see glossary)	Submitted By	Reviewer and Comments	Date Posted	
2	K.CC.3 Write numbers from Represent a number of obj a written numeral 0-20 (representing a count of no	0 to 20. ects with 0 vith 0 objects .	Knail number namer and the cauntrequence	numeral cards 1-6, dot cards 1- 6, tally mark cards 1-6, finger pattern cards 1-6, and a dot die (see link)	Scatter all cards face up at random on the table. Teacher will roll the die and call out a number in the 1- 6 range. Students will take turns finding matches among the numeral cards, dot cards, finger pattern cards, and tally mark cards.	Numoral Idontification 0 YELLOW	Numeral ID ta 'teo'	match numeral cards 1- 6 to opropriate dot cards, finger p tterns, and	Flash * cards in the range 1 6 with numerals, dots, tally marks, or finger patterns for students to identify.	inaloidudir graup r Lihalo claur	nku.edut/kom/vie.utapi c.php?f-13%t-594				Linda Montgomery and Mary Helen Hodges	1.3.11	
3	K.CC.3 Write numbers from Represent a number of obj a written numeral 0-20 (representing a count of no	i 0 t. 20. statistic stati	Knau number namer and the cauntrequence	numeral cards 5-10, dot cards 5-10, tally mark cards 5-10, finger pattern cards 5-10, die labeled 5-10 (see link)	Scatter all cards face up at random on the table. Teacher roll the die and call out a number in the 5-10 range. Students will take turns finding matches among the numeral cards, dot cards, finger pattern cards, and tally mark cards.	Numoral Idontification 0 to 1YELLOW	Numerals to 'ten'	match nur eral cards 10 to appro riate dot carda, finger patteris, and	/F/ash * cards in the range 5- 10 with numerals, dots, tally marks, or finger patterns for students to identify.	inaloiauair group r uhale clarr	nku.edu/*ksm/vieutapi s.php?f-13%t-594		A spinner may be used in place of the die to generate a number in range 5 to 10.		Linda Montgomery and Mary Helen Hodges	1.3.11	
4	K.CC.2 Count forward be from a given number with known sequence (instead of to begin at 1).	nning the the the the the the the the the the	Knau number namer and the caunt requence	numeral tiles 1-30 or numeral oards 1-30, containers labeled "ones," "teens," "twenties," "thirties"	Scatter the tiles (or cards) face down on the table. Students will take turns drawing a tile and plaoing it in the appropriate <i>decade/smilty</i> container. After all tiles have been placed, students will take a family, sort the tiles into sequential order and then read aloud the sequence forward and backward. With tiles shull again say the sequence forward and/or backward. Continue turning over 1-3 tiles with turdents existing has gamene will most or all tiles	Numoral Idontificatian 1ta 2 RED	Numerals ta 'twenty'	id tify numer s1-30 and ount forwa dand backw d1-30.	Show a card in the 1 to 30 range (such as 12 or 23) and asks the student to identify the number, its <i>aleraado</i> <i>family</i> and to name another number in the same family.	individual f graup f uhalo clarr	http://www.kymath.org/interve ntion/doc/numeracuproject/N		Sometimes students who are struggling to read teen numbers are supported by looking beyond the teens. This activity may help students see that there is a pattern within the teen grouping by seeing that pattern repeated in the twenties. Similarly numerals in the range 10 to 40 could be sorted. A <i>numeral rol</i> " (see print link for directions) can be used for students to check their placement of numerals into family groups.		Linda Montgomery and Mary Helen Hodges	1.3.11	
5	K.CC.1 Count to 100 by on tens.	s au ph Caunting & Cardinality	Knal number namer and the caunt requence	numeral oards or tiles in any three or four decade groups (i.e., 30-59, 40-69, 60-39, etc.), containers labeled with each decade	Scatter the lifes (or cards) face down on the table. Students will take turns drawing a tile and placing it in the appropriate decade drawing or container. After all tiles have been placed, students will take a family, sort the tiles into sequential order and then read aloud the sequence forward and backward. With tiles still in order, turn 1 to 3 tiles face down. Students should again say the sequence forward and/or backward. Continue turning over 1-3 tiles with students saying the sequence until most or all tiles	Numeral Identification 2 to 3 BLUE	Numerali ta '100'	dentify nur erals 1-100 nd count prward and L .ckward 1-100.	Show a numeral card in the 1 to 100 range (such as 64 or 82) and asks the student to identify the number, its <i>decade family</i> [*] and to name another number in the same family.	individual? group? whate clarr	http://www.kymath.org/interve ntion/doo/numeracyproject/N		A non-consecutive grouping of cards (such as 22, 25, 33, 36, 39, 41, 44, 46 and so on) may be used to increase the complexity of the sequencing task. When using a non-consecutive set, after the numbers are ordered, students can be asked to count from one number (forward or back) to the next number. A <i>numeral radi</i> " (see print link for directions) may be used by students as they determine how to sort or sequence the numerals.		Linda Montgomery and Mary Helen Hodges	1.3.11	
6	2.NBT.3. Read and write nu 1000 using base-ten num number names, and expand	nbers to erals, ed form.	Understand plan value	numeral cards in the range 1 to 1,000 - a consecutive grouping spanning 1 to 3 decade families, (i.e. 340-369 or 835-844).	Scatter the cards on table. Each student will pick a card and read the number aloud. Students work together to sequence cards then read the sequence forward and bekward. With cards still in order, turn 1 to 3 cards face down. Students should again say the sequence forward and/or backward. Continue turning over 1-3 cards with students saying the sequency until most or all of the cards are face down.	Numora fontification 34a 4 GREE	Numerals ta '1,000'	identify and order numerals in the range 1- 1,000	Show three numeral oards in the 1 to 1,000 range (such as 602, 254 and 852) and asks the student to read and sequence the numerals.	individual f graup f uhale clarr	http://www.senteacher.org/		Numeral cards can be created by hand or online using the Sen Teacher website at http://www.senteacher.org/ if using the website, click on "print maths" link, then click on "Number cards." To create a consecutive set of cards, enter a starting number (such as 340) and set the step number to 1. To increase complexity in the activity, use a step number such as 13, 23 or 47 to create a set of non-consecutive cards for students to order. You may wish to use fever cards at first. If desired, have students sort cards into <i>century</i> <i>Asmilier</i> . "First and then sort cards within each <i>century family</i> ". If cards are close enough together, ask students to count (forward or backward) from one card to the card after or before it. Similar activities can be done with regular skip counting sequences. The cards one be creating a step	Kris Jarboe	Cindy Aossey and Alice Gabbard	1.3.11	
Pear	dv dv		æ												64%		

KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Nume racy Strand (from AVMR)	Construct/Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	
the count sequence	numeral cards 1-6, dot cards 1-6, tally mark cards 1-6, finger pattern cards 1- 6, and a dot die (see link)	Scatter all cards face up at random on the table. Teacher will roll the die and call out a number in the 1-6 range. Students will take turns finding matches among the rumeral cards, dot cards, finger pattern cards, and tally mark cards.	Numeral Identification	0 YELLOW	Numeral ID to 'ten'	match numeral cards 1- 6 to appropriate dot cards, finger patterns, and tally marks.	F n
nt sequence	numeral cards 5-10, dat cards 5-10, tally mark cards 5-10, finger pattern cards 5-	Scatter all cards face up at random on the table. Teacher roll the die and call out a number in the 5-10 range. Students will take turns finding matches among	Identification	YELLOW	als to 'ten'.	match numeral cards 5- 10 to appropriate dot	<i>I</i> 1

earning Experiences ossary)	Numeracy Strand (from AVMR)	Construct/Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	Student Grouping	Video Link	Print .ink	Irveractive Website	Reference
at random on the table. call out a number in the 1-6 ns finding matches among finger pattern cards, and cards.	Numeral Identification	0 YELLOW	Numeral ID to 'ten'	match numeral cards 1- 6 to appropriate dot cards, finger patterns, and tally marks.	Flash* cards in the range 1-6 with numerals, dots, tally marks, or finger patterns for students to identify.	individual / group / whole class		http://kymath.org/i ntervention/doc/N umeracyProject/Str		
it random on the table. out a number in the 5-10 ns finding matches among	Identification	YELLOW	als to 'ten'	match numeral cards 5- 10 to appropriate dot	<i>Flash</i> * cards in the range 5- 10 with numerals, dots, tally	al / group / ble class		<u>ymath.org/i</u> <u>tion/doc/N</u> /Project/Str		

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xperiences	ume racy Strand (from AVMR)	Construct/Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Interactive Website
on the table. umber in the 1-6 matches among ttern cards, and	Numeral Identification	0 YELLOW	Numeral ID to 'ten'	match numeral cards 1- 6 to appropriate dot cards, finger patterns, and tally marks.	Flash* cards in the range 1-6 with numerals, dots, tally marks, or finger patterns for students to identify.	individual / group / whole class		http://kymath.org/i ntervention/doc/N umeracyProject/Str	
on the table. ber in the 5-10 matches among	Identification	YELLOW	als to 'ten'.	match numeral cards 5- 10 to appropriate dot	<i>Flash</i> * cards in the range 5- 10 with numerals, dots, tally	al / group / Na class	2000 010	<u>ymath.org/i</u> tion/doc/N vProject/Str	

Lean manch numeral cards 1-6 to appropriate dot cards, finger patterne, and tally

ECC3. Write nonburn from 0 to 20, Represent to ramber of abjects with a written narveral 0-20 Carls O representing a court of ne objects) Materiale: warrenal conde 1-6, det conde 1-6, tally mark conde 1-6, finger pattern cante 1-6,

Soother all cambi Tace up or nandom on the table. Teacher will roll the die and call out a number and a datide (see bit) Some all cards face up of readers on the face. Teacher serves her or and cards on a remain in the 1-6 range. Students will take turns finding matches among the numeral cards, dut cards, Assessment Notes: Flash" cards to the range 1 -6 with nationals, don, toly marks, or finger fright pattern condit, and tally mark cards

pattern for students to identify.

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	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Nume racy Strand (from AVMR)	Construct/Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	Assess
count sequence	numeral cards 5-10, dot cards 5-10, tally mark cards 5-10, finger pattern cards 5- 10, die labeled 5-10 (see link)	Scatter all cards face up at random on the table. Teacher roll the die and call out a number in the 5-10 range. Students will take turns finding matches among the numeral cards, dot cards, finger pattern cards, and tally mark cards.	Numeral Identification	0 to 1 YELLOW	Numerals to 'ten'	match numeral cards 5- 10 to appropriate dot cards, finger patterns, and tally marks.	Flash* 10 with marks, stuc
		Scatter the tiles (or cards) face down on the table. Students will take turns drawing a tile and placing it in					

	G	Н	1	J	K	L	Μ	N	0	Ρ	Q
es	Nume racy Strand (from AVMR)	Construct/Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Interactive Website	<u>Reference</u>	Teacher Notes
ible. ie 5-10 among ds, and	Numeral Identification	0 to 1 YELLOW	Numerals to 'ten'	match numeral cards 5- 10 to appropriate dot cards, finger patterns, and tally marks.	<i>Flash</i> * cards in the range 5- 10 with numerals, dots, tally marks, or finger patterns for students to identify.	individual / group / whole class		http://kymath.org/inte rvention/doc/Numerac yProject/StructuringCar			A spinner may be used in pla of the die to generate a number in range 5 to 10.
able								on/do .pdf			Sometimes students who a struggling to read teen

I can match numeral cards 5-10 to appropriate dot cards, finger patterns, and tally marks. -

X B B

KNP Entry Number: NI 108.1

KOC3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 Swith D representing a count of no objects).

Materiali: numeral cards 5-10, dat cards 5-10, tally mark cards 5-10, finger pattern cards 5-10, and a spinor labeled 5-10 (see link)

Deection.

Scotter all cards face up at random on the table. Teacher will spin the spinner and call out a number in the 5-10 range. Students will take turns finding matches among the numeral cards, dot cards, finger pattern cards, and tally mark cards.

Assessment Notes: Flash cards in the range 5-10 with summars, dots, tally marks, or finger patterns for students to identify.

Teacher Notes









"I CAN" (*see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Interactive Website	<u>Reference</u>	Teacher Notes	Submitted By
identify numerals 1-30 and count forward and backward 1-30.	Show a card in the 1 to 30 range (such as 12 or 23) and asks the student to identify the number, its <i>decade</i> <i>family</i> * and to name another number in the same <i>family</i> .	individual / group / whole class		http://www.kymath.org/intervention/doc/numer acyproject/NumeralRoll.pdf			Sometimes students who are struggling to read teen numbers are supported by looking beyond the teens. This activity may help students see that there is a pattern within the teen grouping by seeing that pattern repeated in the twenties. Similarly numerals in the range 10 to 40 could be sorted. A <i>numeral roll</i> * (see print link for directions) can be used for students to check their placement of numerals into family groups.	
							A non-approactive grouping of cords	

I can identify numerals 1-30 and count forward and backward in the range

KCC2. Court forward beginning from a given number within the known sequence. Cristead of Materials; numeral tiles 1-30 oc numeral canits 1-30, containers labeled "ones," "teans," "twendies," Ordersone. Seatter the tiles or cards face down on the table. Students will take turns drawing a tile or card "shirtim" and placing it in this oppropriate decode family* container. After all ties or cards have been

placed, students will take each family and sart in sequential order and then need aloud Assessment Notes: Show a card in this 1 to 30 range (such as 12 or 23) and axia the student to identify the number, its decade family" and to name another number is the same family. Teacher Notes - Sometimes students who are struggling to read teen numbers are supported by looking beyond the teers. This activity may help students see that there is a pattern within the teers grouping by seeing that pattern reperated in the twenties. Similarly numerals in the range 10 to 40 cavid be sorted. A numeral rall (see print link for directions) can be used for students to check

their placement of numerals into family groups

Students have sorted the numeral tiles into decade families

20 21 22 23 24 25 26 27 28 29

Students are going to sequence the numerals from the 20's family, then read them aloud, both forward and backward.



s they continue to say the numer forward and backward



Student is saying the numerals in the 20's family forward and backward with minimal support



(from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Interactive Website	Reference	Teacher Notes	Submitte
Numerals to '100'	identify numerals 1-100 and count forward and backward 1-100.	Show a numeral card in the 1 to 100 range (such as 64 or 82) and asks the student to identify the number, its <i>decade family</i> * and to name another number in the same family.	individual / group / whole class		http://www.kymath.org/intervention/do c/numeracyproject/NumeralRoll.pdf			A non-consecutive grouping of cards (such as 22, 25, 33, 36, 39, 41, 44, 46 and so on) may be used to increase the complexity of the sequencing task. When using a non-consecutive set, after the numbers are ordered, students can be asked to count from one number (forward or back) to the next number. A <i>numeral roll</i> * (see print link for directions) may be used by students as they determine how to sort or sequence the numerals.	
								Numeral cards can be created by	

I can denily movereds 1-100 and count (covered and backneed in the range

to a life and low or use of mine quant to and the line is call for a

100 60

69.40.69.10.19

Card redre 1 to 100 range







Numerals in the 50's family



Numeral sequence that crosses a "decade"




ones teens twentie thirties forty's fifty's

eighty

ninety

14 19 26 34 41 58 70 29 30 3 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 44

Sevent/s

Sixtys

Sequence of non-consecutive numerals

Ni 108.4



Ni 108.4											
"I CAN" (*see glossary)	Assessment for Learning	Student Grouping	Video Link	Print Link	Interactive Website	Reference	Teacher Notes				
identify and order numerals in the range 1- 1,000	Show three numeral cards in the 1 to 1,000 range (such as 602, 254 and 852) and asks the student to read and sequence the numerals.	individual / group / whole class		http://www.senteacher.org/			Numeral cards can be created by hand or online using the Sen Teacher website at http://www.senteacher.org/ If using the website, click on "print maths" link, then click on "Number cards." To create a consecutive set of cards, enter a starting number (such as 340) and set the step number to 1. To increase complexity in the activity, use a step number such as 13, 23 or 47 to create a set of non- consecutive cards for students to order. You may wish to use fewer cards at first. If desired, have students sort cards into <i>century families</i> * first and then sort cards within each <i>century family</i> *. If cards are close enough together, ask students to count (forward or backward) from one card to the card after or before it. Similar activities can be done with regular skip counting sequences. The cards can be created by using a step number such as 2, 5 or 10.				





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Number Cards



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Maths Spinner

Create several different types of game spinner for maths activities.

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Ni 108.4

Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy	Construct	Numeracy	"I CAN" (*see glossary)	Assessment for Learning (*see glossary)	Student	Grouping Video Link	Print Link	Inte ractive	Reference	Teacher Notes (*see glossary)
numeral cards in the range 1 to 1,000 - a consecutive grouping spanning 1 to 3 decade families. (i.e. 340-369 or 835-844).	Scatter the cards on table. Each student will pick a card and read the number aloud. Students work together to sequence cards then read the sequence forward and backward. With cards still in order, turn 1 to 3 cards face down. Students should again say the sequence forward and/or backward. Continue turning over 1-3 cards with students saying the sequence until most or all of the cards are face down.	Numeral Identification	3 to 4 GREEN	Numerals to '1,000'	identify and order numerals in the range 1- 1,000	Show three numeral cards in the 1 to 1,000 range (such as 602, 254 and 852) and asks the student to read and sequence the numerals.	individual / proup / whole class	-	http://www.senteacher.org/			Numeral cards can be created by hand or online using the Sen Teacher website at http://www.senteacher.org/ If using the website, click on "print maths" link, then click or "Number cards." To create a consecutive set of cards, enter a starting number (such as 340) and set the step number to 1. To increase complexity in the activity, use a step number such as 13, 23 or 47 to create a set of non-consecutive cards fo students to order. You may wish to use fewer cards at first. If desired, have students sort cards

Ni 108.4

With sequential numerals



With scattered numerals





The Kentucky Numeracy Project

CLOSING

COMPARING

NUMERAL IDENTIFICATION NUMBER WORDS INTROE JCTION

Ni 125

Α	В	С	D	E	F	G	Н	1	J	К	L
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)	Assessment for Learning	Student Grouping
Ni 125.0	K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	Counting & Cardinal ity	Compare numbers	arrow cards*: one set of 1- 5 numeral arrow cards for each small group of students (see link)	Working in groups of 3-5 students, the students will each draw one <i>arrow card</i> [*] and read it aloud. Students will then order the numbers from smallest to largest. The student who drew the largest numeral gets a point. After each turn, replace the cards in the stack, shuffle and draw again.	Numeral Identification	0 YELLOW	Numerals to 'ten'	Identify and tell which of two numerals from the range 1 to 5 is greater.	Lay out the "3" and the "5" cards. Ask students to read the numerals and tell which number is greater.	small group
Ni 125.1	K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	Counting & Cardinal ity	Compare numbers	arrow cards*: one set of single-digit arrow cards for each small group students (see link)	Working in groups of 3-5 students, each student draws 1 arrow card* and reads it aloud. Students order the numbers from smallest to largest. After each turn, replace the cards in the stack, shuffle and draw again.	Numeral Identification	0 to 1 YELLOW	Numerals to 'ten'	identify and tell which selected numerals from the range 1-9 is greatest.	Lay out the "4," "6" and "9" cards. Ask students to read the numerals and tell which is the greatest. Task can be repeated with different and/or additional arrows.	small group
Ni 125.2	 K.NBT.1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or 	nber & Operations in Base Ten	rk with numbers 11-19 to gain foundations for place value	arrow cards*: one set of single-digit arrow cards per small group and one "10" arrow card per student (see link)	Working in groups of 3-5 students, each student builds a 2-digit number using the "10" and a single digit <i>arrow</i> <i>card*</i> . Each student will read his/her number. Students order numbers from smallest to largest. If desired, have students write their number on a writing space.	Numeral Identification	1 to 2 RED	Numerals to 'twenty'	identify and tell which selected numerals from the range 10 to 19 is greatest.	Show four numeral cards in range 10 to 19 (for example "18," "12," "19" and "16"). Ask students to read the numerals and tell which numeral is the greatest. Task can be repeated with different and/or additional	small group

T	A	в	С	D	
	KNP Entry	Kentucky Common Core Academic Standard (KCAS) (*see glossary)	ECAS Pi.	ECAS CI AL-	
	Ni 125.0	K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	Continue Continuity	Compare analysis	2
	Ni 125.1	K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	Condition II Conditionally	Compare analyses	
	Ni 125.2	 K.NBT.1. Compose and decompose numbers from 11 to 13 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. 	Hamber & Operations in Pase Tra	Week with seathers 44-49 le quis faced disco fac place calse	
	Ni 125.3	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.	Hauter & Operations in Pase Tra	Ealerd Ibe analise represe	s F
	Ni 125.4	2.NBT.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	Hamber & Operations in Pase Tra	anta anta katasan	
	Ni 125-5	4.NBT.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. (Grade 4 expectations in this domain are limited to whole numbers less than or equal to	Hamber & Operations in Pase Tra	Grove allare salare saderal anding for 	

KCAS Standard, Domain & Cluster

	KCAS standard	Domain	Cluster							
125.0	K.CC.7	Counting &	Commence							
125.1	K.CC.7	Cardinality	Compare numbers							
125.2	K.NBT.1		Work with numbers 11-19 to gain foundations for place value							
125.3	1.NBT.1	Number &	Extend the counting sequence							
125.4	2.NBT.3	Operations in Base Ten	Understand place value							
125.5	4.NBT.2		Generalize place value understanding for multi-digit whole numbers							

	С	D	E	F	G	н	-L	J	К
Core Academic (KCAS) ssary)	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)	Assessment for
0, starting at any 0. In this range, rals and represent s with a written al.	Number & Operations in Base Ten	Extend the counting sequence	arrow cards*: one set of single digit and one set of double digit arrow cards* per small group (see link)	Working in groups of 3-5, each student uses two different color arrow cards * to build a 2-digit number. Each student will read his/her number to the group and show what two arrow cards were used to build the number. Students order the "built" numbers (with layers intact) from smallest to largest. If desired, ask students to take turns counting from one number in the sequence to the next.	Numeral Identification	2 to 3 BLUE	Numerals to '100'	identify tell which selected numerals from the range 10 to 99 is greatest.	Show four nume range 10 to 99 (f "71," "12," "39" a Ask students to numerals and te the greatest. Ta repeated with and/or addition cards.
n Guide Giossary	e Color Co	des Sr	ating Instructions References	*1		0		10	Show five nume

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Durable plastic place value arrow cards can be purchased



Arrow cards can be made by printing the template on colored cardstock.







Ni 102.4

D	E	F	G	Н		J
KCAS Cluster	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Strand	Construct/Level (from AVMR)	Numeracy Target	"I CAN" (*see glossary)
Understand place value	arrow cards*: one set of ones, tens and hundreds arrow cards per small group	Working in groups of 3-5, each student uses three different color <i>arrow cards</i> * to build a 3-digit number. Each student will read his/her number to the group and show what three arrows were used to build the number. Students order the "built" numbers (with layers intact) from smallest to largest.	Numeral Identification	3 to 4 GREEN	Numerals to '1,000'	identify and te which selected numerals from the range 100 to 999 is greatest.
alue understanding for whole numbers	arrow cards*: one set of ones, tens and hundreds,	Working in groups of 3-5, each student uses <i>arrow cards</i> * to build a 2 to 4-digit number. Each student will read his/her number to the group and show what arrow cards were used to build the number. Students order the "built"	dentification	5 PURPLE	to '1,000,000'	identify and te which selected numerals in the



З















Numeral ID

I can identify numerals to 1000 and tell which numeral is greatest.

Use arrow cards to make a numeral. Name your numeral. Work together to order your numerals.

Ni 125.4 (front of folder)


Ni 125.4 (back of folder)

<u>ک</u>																				
A THE	entucky Common Core ademic Standard (KCAS) (*see glossary)	CAS Domain	CAS Chronic	Setting (situation & materials)	Activities: Exemplary Learning Experiences ("see glossary)	No rear rancy for and from AVAR)	from AV WD	(% "I CAN" ("see glossary)	Assessment for Learning		ONP Entry	Ruden t Grouping	Arden Unik Mane Unik	te estat un	at here	Teacher Notes	Submitted By	Reviewer and Comments	Date Posted	
NI 125.0	K.CC.7 Compare two mbers between 1 and 10 presented as written numerals.	Counting & Cardinality	Compare numbers	orrow cards ": one set of 1-5 nameral arrow Cards for each small group of students (see link)	Working in groups of 3-5 students, the students will each draw one arrow card* and read it aloud. Students will then order the numbers from smallest to largest. The student who drew the largest numeral gets a point. After each turn, replace the cards in the stack, shuffle and draw again.	Manuarial Identification	MOTELA O	 identify and tell which of two numerals from the range 1 to 5 is greater. 	Lay out the "3" and the "3" cards. Ask students to read the numerals and tell which number is greater.		NI 125.0	small group	titi pol Alyma N. org fridenmention / doc Alumentary Proti and According fridenmention / doc Alumentary	FT IS NOT THE PARTY OF CARD 1 STATEMENT AND THE	2	http://education world.com/a_cu clmathchat/mat <u>chat024.chml</u>		Linda Hontgomery and Mary Helen Hodges	1.3.11	
NI 125.1	K.CC.7 Compare two mbers between 1 and 10 presented as written numerals.	Councing & Candinatry	Gargest e numbers	errow cards *: one set of single-digit arrow cards for each small group students (see link)	Working in groups of 3-5 students, each student draws 1 arrow card and reads it aloud. Students order the numbers from smallest to largest, After each turn, replace the cards in the stack, shuffle and draw again.	Prameral Identification	0 to 1 YELIOW	 identify and tell which selected numerals from the range 5- 9 is greatest. 	Lay out the "4," "6" and "9" cards. Ask students to read the numerals and tell which is the greatest, Task can be repeated with different and/or additional arrows.		NI 125.1	well group	https://symmth.org/intervention/doc/Numera. Minutes/Astronomy.org/intervention/doc/Numera.	yeropecturer orkureatureri orkureren per	2	A brief explanation of place value arrow cards " with links to printable arrows can be found at (see link in NI 125.0 Teacher Note). Durable plastic arrow cards may be ourchased at		Linda Hontgomery and Mary Helen Hodges	1.3.11	
Feeter	v Center for Mathematics																			
Kentuci	y Center for Mathematics	s; Kentu s; Kentu	ucky Nun	neracy Project http neracy Project http	r://kentuckymathematics.org r://kentuckymathematics.org				January 4, 2011 January 4, 2011		entus entus	cky Ce cky Ce	nter for Ma	lathema	itics; Ko	ntucky Numeracy i ntucky Numeracy i	hoject http://A	entuckymathematics.or entuckymathematics.or	rs rs	January January
Kentuci	y Center for Mathematics entucky Common Core ademic Standard (KCAS) (*see glossary)	s; Kentu s; Kentu	ucky Nun	neracy Project http neracy Project http Setting (situation & materials)	r://kentuckymathematics.org r://kentuckymathematics.org Activities: Exemplary Learning Experiences (*see glossary)	Norme reacy film and (from AVA)	(freen AVAR)	T CAN" ("see glossary)	January 4, 2011 January 4, 2011 Assessment for Learning	*	ientus ientus	day Ce	nter for Mi	lathema lathema	itics; Ko	ntucky Numeracy I ntucky Numeracy I Teacher Notes	hoject http://k hoject http://k Submitted By	entuckymathematics.or entuckymathematics.or Reviewer and Comments	78 78 Date Posted	January January



Ni 125.3 (back of folder)

	Setting (situation & materials)	Activities: Exemplary Learning Experiences (*see glossary)	Numeracy Stranc (from AVMR)	Construct/Level (from AVMR)	Numeracy Targe (from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	
	<i>arrow cards</i> *: one set of single digit and one set of double digit arrow cards* per small group (see link)	Working in groups of 3-5, each student uses two different color arrow cards* to build a 2-digit number. Each student will read his/her number to the group and show what two arrow cards were used to build the number. Students order the "built" numbers (with layers intact) from smallest to largest. If desired, ask students to take turns counting from one number in the sequence to the next.	Numeral Identification	2 to 3 BLUE	Numerals to '100'	identify and tell which selected numerals from the range 10 to 99 is greatest.	Show four numeral cards in range 10 to 99 (for example "71," "12," "39" and "60") . Ask students to read the numerals and tell which is the greatest. Task can be repeated with different and/or additional numeral cards.	
		Numeral	TD	mala	to	70		
		Ni 125.3 I can in 100 and greatest .use numeral. together	lentify nu lell which arrow car Name yo to orde	ds to m ur num r your	ral is ake a eral. Wi numeral	8 35 0 4 0		

0 9 2



3 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51







Setting	Activities: Exemplary Learning Experiences	Numeracy Strand	Construct/Level	Numeracy Target	"I CAN"	Assessment for Learnir
(situation & materials)	(*see glossary)	(from AVMR)	(from AVMR)	(from AVMR)	(*see glossary)	
arrow cards*: one set of single-digit arrow cards per small group and one "10" arrow card per student (see link)	Working in groups of 3-5 students, each student builds a 2-digit number using the "10" and a single digit <i>arrow</i> <i>card</i> *. Each student will read his/her number. Students order numbers from smallest to largest. If desired, have students write their number on a writing space.	Numeral Identification	1 to 2 RED	Numerals to 'twenty'	identify and tell which selected numerals from the range 10 to 19 is greatest.	Show four numeral cards range 10 to 19 (for exam "18," "12," "19" and "16 Ask students to read th numerals and tell which numeral is the greatest Task can be repeated wi different and/or addition numeral cards.





dentify and order umbers.

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player should use rrow and a ones to make a number. to make a number. ur number aloud. Work to put the numbers

Ni 125.1 and Ni 125.0

Note Entry	Kentucky Common Core Academic Standard (RCAS) (*see glossary)	PLAS Damas		Setting (Utiliation B materials)	Activities: Exemplary Learning Experiences (*see glossary)	Access lites	Contractions from All ME	Normal State	"I CAN" ("see glossery)	Assessment for Learning
M 125.0	R.CC.? Compare two hunders between 1 and 0 presented as written manecals.	Reliance) & houses	(metana santan)	arrow cards 5 one set of 1-5 numeral arrow cards for each small group of students (see link)	Working in groups of 3-5 students, the students will each shaw one arrow card* and read it shoul. Students will then order the numbers from smallest to largest. The student who drew the largest numeral gets a point, After each tom, replace the cards in the stack, shuffle and draw again.	NAME ADDRESS	1151294	Numeric to Sec	identify and tell which of two numerals from the range 1 to 5 in greater.	Lay sud, the '3' an the '5' tarth, As thadents to read to extremits and tel which extribut a greater,
к. пот 10 р	CC.7 Compare two bers between 1 and resented as written numerals.	Comment	25	errow cards ": one set of single-digit fow cards for each sall group students (see link)	Working in groups of 3-5 students, each student draws 1 arrow card* and reads it aload. Students order he numbers from smallers to largest. Were each turn, replace the cards in the stack, shuffle and draw again.	Numeral Newtonoon	AGTION & HIS	Numerich III See	identify and toil which selected numerals from the range 1- 9 is greatest.	Lay out the "4," and "9" cards. A students to read numerals and to which is the greatest. Task o be repeated wi different and/ additional arro



Setting (situation & materials)	Activities: Exemplary Learning E (*see glossary)	xperiences	Numeracy Strand (from AVMR)	Construct/Level (from AVMR)	Numeracy Target (from AVMR)	"I CAN" (*see glossary)	Assessment for Learning	
arrow cards*: one set of ones, tens and hundreds, thousands arrow cards* per group	Working in groups of 3-5, each stud cards* to build a 2 to 4-digit number. read his/her number to the group and cards were used to build the number. S "built" numbers (with the layers intact) largest. Repeat making sure all st opportunities to make numerals with d	ent uses <i>arrow</i> Each student will show what arrow tudents order the from smallest to udents have ifferent numbers	Numeral Identification	4 to 5 PURPLE	Numerals to '1,000,000'	identify and tell which selected numerals in the range 10 to 9,999 is greatest.	Show five numeral cards in range 10 to 10000 (for example "804," "1398," "76," "3505," "9000") . Ask students to read the numerals and tell which is greatest. Task can be repeated with different and/or additional numeral cards.	
numeral. Name Work together to the numerals.	your numeral. order all of 60 22	Ni 125.5						

New Entry	Rentiacky Common Core Academic Standard (KCA1) (*eee gimaary)	National	ana	Setting Influetron A materialsi	Activities: Learning Learning Enjorthences (Peer glossary)	on stati	an a state of	Man Inde	"I CAN" ("see glossary)	Annanament Bar Learning
4 132 M	4.4817.2. Rend and action match data and action many Nation Comparison of the Comparison of the the Comparison of the Comparison of the Comparison of the Comparison of the Comparison of the Comparison of the Comparison of the Comparison of the Compar	Andre 2 Spectrum 2 law for	united and a function of a state of the second	errow cards", see set of sens, tens and bundheds, thesamot arrow cards" per grow	Werehouse the groups of 3-5, each failure (ones arrive could be hand) and to define the second beam of the wiseless with reach has the number carefore groups and show what arrive carefore groups and show what arrive carefore groups and show what arrive reaches and arrive the logent beam matching such as a group. Region methods to reach the logent beam opportunities to reader momentals with difference nearbors of diggs.	and and a state	a parties	Annual 12010	- Mercelly and Gell which solve fail rearrances to the origin to the 9-dee to grandway.	More the summer death or longe 10 in the control of a summer base of the summer summer so that summer so





Ni 125 – all folders



The Kentucky Numeracy Project

COMPARING NUMERAL IDENTIFICATION NUMBER WORDS INTROE JCTION

Kentucky Numeracy Project Archives

Numeral Roll

- <u>.pdf</u> Numeral Roll directions and printables.
- Video:





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

- February 17 Structuring to Five and Ten
- March 10 Addition and Subtraction
- March 31 Structuring to Twenty
- April 21 Advanced Addition and Subtraction
- May 12 Multiplication and Division
- June 2 Tens and Ones





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Reflection Questions

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- 1) What are your students' abilities to say number word sequences forward and backward, starting at any number?
- 2) What are your students' abilities to accurately identify numerals (especially common problem numerals such as the teens, 12, 20, 21)?
- 3) What are your students' abilities to say number words forward and backward across decades and across double, repeated digit numbers (i.e. 66, 77)?
- 4) How might you identify and address student difficulties with number word sequences, number word before, number word after, numeral identification and skip counting on and off the multiples?
- 5) Why is robust facility with forward and backward number words and numerals important for future success in mathematics?