

**East Carolina University & The Department of Psychology – Number Sense Unit Overview – Kindergarten Intervention Program**

---

<b>Session</b>	<b>Objectives*</b>	<b>Warm-Up**</b>	<b>Activity** (Discussion of activity w/students follows)</b>	<b>Skill Area***</b>
#1-#14	1.01 Develop number sense for whole numbers through 30 (a-g)	-----	-----	-----
#1	a. Connect model, number word (orally), and number using a variety of representations	Object Land 1 - Count Up  Purpose: helps students learn order of numbers	Object Land 1 – Watch Listen and Count  Purpose: helps students learn that each number is associated with an object; last number said identifies a set	Counting
#2	a. Connect model, number word (orally), and number using a variety of representations	Object Land 2 – Blastoff!  Purpose: give opportunities to practice counting backward; lays foundation for subtractions	Object Land 4 – Matching Colors and Quantities  Purpose: helps extend students’ knowledge of number concepts from concrete objects to 2-D images (dot – sets)	Counting
#3	b. Count objects in a set	Line Land 6 – Count Up  Purpose: helps students learn order of numbers/associate with moving forward	Object Land 14 – Tapping and Clapping  Purpose: gives concrete example of set size by performing and action sequence that corresponds to the size of the set/explore dot-set patterns and set size	Counting
#4	b. Count objects in a set	Picture Land 4 – Blastoff!  Purpose: teaches that counting backward by one unit and subtraction one object from a set yield equivalent results	Picture Land 16 – Dog and Bone  Purpose: helps children make transition from counting objects to counting set representations of familiar objects	Counting
#5	c. Read and write numerals	Picture Land 5 – Name That Numeral  Purpose: builds numeral recognition skills	Picture Land 19 – Bravo  Purpose: helps students to compare numerals	Counting

\*North Carolina Standard Course of Study, Kindergarten Indicators.

\*\*Numberworlds Curriculum Activities. Science Research Associates ([www.sraonline.com](http://www.sraonline.com))

\*\*\*Clements, D.H. (2004). Major themes and recommendations. In D.H. Clements, J. Sarama, & A.DiBiase (Eds.) Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education. Mahwah, NJ: Erlbaum.

**East Carolina University & The Department of Psychology – Number Sense Unit Overview – Kindergarten Intervention Program**

---

#6	c. Read and write numerals	Picture Land 5 – Name That Numeral  Purpose: helps children learn to recognize numbers	Picture Land 17 – Concentration  Purpose: helps students connect their knowledge of counting and patterns with numerals	Counting
#7	d. Compare and order sets and numbers	Circle Land 11 – Count Up  Purpose: shows children that numbers can be used for measurement and counting	Object Land 3 – Using the Sorting Mats  Purpose: helps students practice comparing sets of object to identify which sets have more, less, or the same amount	Comparing and Ordering
#8	d. Compare and order sets and numbers	Sky Land 10 – Blast Off  Purpose: helps children develop a foundation for subtraction	Object Land 13 – 2 – D Count and Compare  Purpose: allows students to understand how to make comparisons between sets of different sizes	Comparing and Ordering
#9	e. Use ordinals (1 <sup>st</sup> – 10 <sup>th</sup> )	Line Land 6 – Count Up  Purpose: reinforces association between moving forward on a number line and counting up	Picture Land 20 – Sequencing  Purpose: helps students build an understanding of the position of each numeral in the number sequence	Comparing and Ordering
#10	e. Use ordinals (1 <sup>st</sup> – 10 <sup>th</sup> )	Sky Land 10 – Blastoff!  Purpose: helps students learn applications for the reverse counting sequence	Line Land 23 – Position on the Number Line  Purpose: helps children learn the position of each number	Comparing and Ordering
#11	f. Estimate quantities fewer than or equal to 10	Line Land 8 – Line Up  Purpose: helps students identify or compute set size	Object Land 12 – Mouse in the Cookie Jar  Purpose: helps children to strengthen ability to count a set of objects and compare amounts	Comparing and Ordering
#12	f. Estimate quantities fewer than or equal to 10	Line Land 9 – Count Up  Purpose: reinforce students’ knowledge of the counting sequence	Object Land 10 – Count and Compare  Purpose: challenges students to identify the number of objects in a set	Comparing and Ordering

\*North Carolina Standard Course of Study, Kindergarten Indicators.

\*\*Numberworlds Curriculum Activities. Science Research Associates ([www.sraonline.com](http://www.sraonline.com))

\*\*\*Clements, D.H. (2004). Major themes and recommendations. In D.H. Clements, J. Sarama, & A.DiBiase (Eds.) Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education. Mahwah, NJ: Erlbaum.

East Carolina University & The Department of Psychology – Number Sense Unit Overview – Kindergarten Intervention Program

#13	g. Recognize equivalence in sets and numbers 1 – 10	Line Land 7 – Blastoff!  Purpose: review and reinforce reverse counting sequence	Object Land 11 – Count and Compare  Purpose: challenges children to identify number of object in a set and compare	Equal Partitioning
#14	g. Recognize equivalence in sets and numbers 1 – 10	Picture Land 5 – Name That Numeral (and set)  Purpose: to reinforces identification of numerals and sets	Picture Land 18 – Go Fish  Purpose: helps students build connections between dot-set numbers and numerals	Equal Partitioning
#15	1.02 Share equally between two people; explain	Sky Land 9 – Count Up  Purpose: reinforces counting skills	Object Land 10 – Let’s Compare  Purpose: helps students compare sets of objects/distinguish if they are equal	Equal Partitioning
#16	1.02 Share equally between two people; explain	Circle Land 12 – Blastoff!  Purpose: reinforces the reverse counting sequence	Object Land 3 – Using the Sorting Mats  Purpose: helps students make two equivalent sets	Equal Partitioning
#17	1.03 Solve problems and share solutions to problems in small groups	Sky Land 9 – Count Up  Purpose: helps students’ ability to count on	Sky Land 33 – Hurry Up Passengers, Going Down  Purpose: teaches students to make comparisons and to solve problems	Recap of skills
#18	1.03 Solve problems and share solutions to problems in small groups	Sky Land 10 – Blastoff! (variation 1)  Purpose: demonstrates real-world applications for counting down	Object Land 7 – Picnic Party  Purpose: invites children to explore real-world problem to determine whether a set of objects is large enough to meet a given need	Recap of skills

\*North Carolina Standard Course of Study, Kindergarten Indicators.

\*\*Numberworlds Curriculum Activities. Science Research Associates ([www.sraonline.com](http://www.sraonline.com))

\*\*\*Clements, D.H. (2004). Major themes and recommendations. In D.H. Clements, J. Sarama, & A.DiBiase (Eds.) Engaging Young Children in Mathematics: Standards for Early Childhood Mathematics Education. Mahwah, NJ: Erlbaum.