

## Improving Teaching through Systematic Assessment Assessment Scale

Shannon Riley-Ayers, Ph.D.
Judi Stevenson-Garcia, Ed.M.
Ellen Frede, Ph.D.
Kimberly Brenneman, Ph.D.

NATIONAL INSTITUTE FOR EARLY EDUCATION RESEARCH

## **Math / Science**

Number and Numerical Operations	1	2	3		4	5
Functional Counting	<ul> <li>Shows interest in numbers and counting</li> <li>May be able to use the numbers 2, or 3 to label how many in a second</li> </ul>	s 1, et	<ul> <li>Assigns numbers to items, but not always accurately</li> <li>Knows the number words from 1-10 and begins to learn the teen sequence</li> <li>Recognizes that the last number is how many in the group</li> </ul>	•	Counts items accurately up to 15; Knows the number words and can extend the decade pattern beyond 29	
Numerical Operations	<ul> <li>Plays by adding and taking awa items</li> <li>Depends on visual cues to determine which of two sets has more or less</li> </ul>		<ul> <li>Understands that there are more when items are combined and less when some items are taken away</li> <li>Can solve put together or take away problems with sets ≤ 5</li> </ul>		Matches and/or co to determine which Uses strategies to subtract from numb	has more add to or
Written Numbers	Not able to identify written numerals		<ul> <li>Distinguishes numerals from letters or identifies some numerals</li> <li>Attempts to write some numerals</li> </ul>	•	Identifies and write numerals and unde they represent qua	erstands that
2 Classification and Algebraic Thinking	1	2	3		4	5
Classification	Notices similar attributes		Sorts items based on similar attributes	•	Determines how to of items and tells a using relevant voca	bout the groups
Algebraic Thinking	Recognizes a simple pattern		<ul> <li>Identifies missing parts of a simple pattern</li> <li>Replicates and extends simple patterns</li> </ul>	•	Replicates and extends longer and more complex patterns	
3 Geometry and Measurement	1	2	3		4	5
Identifying and Using Shapes	<ul> <li>Identifies circle and square</li> <li>Takes apart and fits together objects</li> </ul>		<ul> <li>Identifies common shapes</li> <li>Turns and flips shapes intentionally to determine congruency or to solve a puzzle</li> </ul>	•	Identifies additional irregular shapes Compares/contrast dimensional shape Uses knowledge of properties to solve	ts 2- and/or 3- s by attribute f shape
Measurement	Notices large differences in size	<b>:</b>	Makes direct comparisons of length, weight, volume, height, or area of materials/objects	•	Uses standard and tools to measure le volume, or weight Uses a common be comparing length of	l/or non-standard ength, height,
Scientific Inquiry	1	2	3		4	5
Observation and Reporting	May provide simple comments about observed objects and phenomena		Gives informative descriptions about observed phenomena, but does not generate explanations for observed events		<ul> <li>Elaborates on what is observed by comparing and contrasting objects and events</li> <li>Draws simple conclusions about cause and effect relationships during informal or teacher-led investigations</li> </ul>	
Prediction	Provides no predictions during scientific exploration		<ul> <li>Provides a prediction, but does not provide support or give logical reason(s)</li> </ul>	•	Provides logical su predictions	pport for
Investigation	May comment on phenomena, be does not ask inquiring questions		Generates questions, but does not provide a plan for investigation	•	Investigates specification through exploration ing books, the interesearch technique	n or by us- rnet, or other

## **Social Emotional / Social Studies**

Self-Regulation	1 2	3	4 5	
Independent Behavior	<ul> <li>Needs teacher support to move through classroom routines</li> <li>Waits for teacher or others to notice he or she needs help</li> </ul>	<ul> <li>Needs reminders to move through the classroom routines</li> <li>Asks the teacher or other child for help</li> </ul>	<ul> <li>Moves through the classroom routines with minimal teacher direction</li> <li>Demonstrates self-help skills</li> </ul>	
Regulation of Emotions and Behavior	Does not regulate behavior or emotions and acts out on impulse	Needs reminders and redirections to control behavior	<ul> <li>Expresses needs and feelings verbally without being aggressive and may suggest solutions</li> <li>Channels negative feelings through specific positive coping techniques</li> </ul>	
Prosocial Behavior	<ul> <li>Does not take turns or share materials with others</li> <li>Does not recognize others' feelings</li> </ul>	<ul> <li>Needs reminders from the teacher to share and take turns</li> <li>Has some understanding of others' feelings, but does not relate them to own feelings</li> </ul>	<ul> <li>Takes turns in play and conversations</li> <li>Understands concept of sharing and is able to share at times</li> <li>Empathizes with feelings of others</li> </ul>	
Social Problem Solving	Cannot successfully resolve social conflicts	Can resolve social conflicts with adult guidance	In social conflicts, attempts to follow social problem solving process independently	
6 Play	1 2	3	4 5	
	Does not engage with materials independently     Is not engaged during play	Chooses materials, but needs support to engage and extend their use Is engaged in activities during play, but may become off task in transition	<ul> <li>Explores and experiments with a wide variety of materials</li> <li>Engages in purposeful activity for most of the time while moving independently from one activity to another</li> </ul>	
Play  Quality and Attributes of	Does not engage with materials independently	<ul> <li>Chooses materials, but needs support to engage and extend their use</li> <li>Is engaged in activities during play, but may become off task in</li> </ul>	<ul> <li>Explores and experiments with a wide variety of materials</li> <li>Engages in purposeful activity for most of the time while moving independently from one activity to</li> </ul>	

## Language and Literacy

1	2	3	4	5	
Unlikely to participate in discussions	• 1		<ul><li>strong vocal</li><li>Participates asking ques</li></ul>	<ul> <li>Uses complex sentences and strong vocabulary</li> <li>Participates in discussions by asking questions and making connections</li> </ul>	
	onnection r	main components, but may differ		Retells familiar stories with some accuracy and details	
1	2	3	4	5	
	s and • I	Repeats language with repetitive		ords into syllables rhymes and	
1	2	3	4	5	
Identifies few, if any, letter	ers • I	dentifies some letters	comments a environment	bout letters in the	
carries meaning • Recognizes prominent a	• I	Recognizes some print in the	different fun • Identifies pri	s that print is used for etions nt in environment such e's names, signs, and	
1	2	3	4	5	
	to writing • I	drawing Provides dictation to an adult to be		ols for a purpose to mation or to tell a story	
Draws or scribbles				entional letters eer than their name)	
	<ul> <li>Uses gestures to comm</li> <li>Unlikely to participate in discussions</li> <li>May use very short phrase</li> <li>Retells familiar stories upictures, but with little conton the actual storyline</li> <li>1</li> <li>Responds to rhymes an</li> <li>Repeats parts of rhymes chants</li> <li>Identifies few, if any, letter carries meaning</li> <li>Recognizes prominent a common print in environ relying on picture cues</li> <li>May identify scribbling at Does not give meaning</li> <li>May identify scribbling at Does not give meaning</li> </ul>	Uses gestures to communicate Unlikely to participate in discussions May use very short phrases  Retells familiar stories using pictures, but with little connection to the actual storyline  1 2  Responds to rhymes and music Repeats parts of rhymes and chants  1 2  Identifies few, if any, letters  Does not recognize that print carries meaning Recognizes prominent and common print in environment by relying on picture cues  1 2  May identify scribbling as "writing" Does not give meaning to writing  Does not give meaning to writing  Draws or scribbles  In the property of the print of the property of the print of	<ul> <li>Uses gestures to communicate Unlikely to participate in discussions May use very short phrases</li> <li>Retells familiar stories using pictures, but with little connection to the actual storyline</li> <li>Responds to low-level questions</li> <li>Retells familiar stories with some main components, but may differ from storyline</li> <li>Responds to rhymes and music</li> <li>Repeats parts of rhymes and chants</li> <li>Repeats language with repetitive beginning sounds (alliteration)</li> <li>Recognizes few, if any, letters</li> <li>Identifies some letters</li> <li>Recognizes that print carries meaning</li> <li>Recognizes prominent and common print in environment by relying on picture cues</li> <li>Recognizes some print in the classroom including own name</li> <li>Recognizes that print thas meaning</li> <li>Recognizes some print in the classroom including own name</li> <li>Werbally labels own "writing" or voides dictation to an adult to be written on a piece of work</li> </ul>	Uses gestures to communicate Unlikely to participate in discussions May use very short phrases  Responds to low-level questions Participates asking questions Retells familiar stories using pictures, but with little connection to the actual storyline  Responds to rhymes and music Repeats parts of rhymes and chants  Repeats parts of rhymes and chants  Recognizes with repetitive beginning sounds (alliteration)  Recognizes few, if any, letters  Identifies some letters  Recognizes that print has meaning as a common print in environment by relying on picture cues  Recognizes some print in the classroom including own name  Recognizes prominent and common print in environment by relying on picture cues  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recognizes  Recognizes some print in the classroom including own name  Recognizes  Recognizes some print in the classroom including own name  Recognizes some print in the classroom including own name  Recogn	