



Bentonville Schools Elementary Math Flowchart

All students participate in quality Core Instruction

Assessments (pg2): MAP, ACT Aspire (3-4), Fact Fluency Assessments (ASP, MDP)

If the student participated in intervention services at the end of the previous year, students should not be dismissed based on BOY data, but based on the skills acquired determined by: progress monitoring/diagnostic data.

Does the student demonstrate mastery according to all universal assessments?

[\[Link to Expectations by Grade Level\]](#)

yes

no

Student receives
Core Instruction
(with small group differentiation strategies)

Core Instruction
Includes:

Analyze Quarterly Learning Target Assessments,
Fact Fluency Assessment & MAP for area of need

Student Support needed: Fact Fluency Student Support needed: Other Target Area

Needs Mental Strategies:
Curriculum Based
Instruction for Strategy
Development -small group

Based on Target Area:
Curriculum Based
Instruction-small group

and/or

and/or

**Building toward
Knows from Memory:**
-Fact Fluency Supplement
-Book of Facts
-CRA Model
-Games

Arkansas Math Matrix
OR
Assigned Focus in
Dreambox with teacher
monitoring

Further investigation of diagnostic assessment is needed.
Analyze NSA, ASP, MDP; Administer K-4 Bentonville Counting
Assessment (K-4 BCA) and/or GLOSS (2nd-4th)
(add stage results into Matrix spreadsheet)

Does student meet stage needs for grade level?

[\[Link to Stages: Number Knowledge & Strategy\]](#)

yes

no

Analyze K-4 Bentonville Counting Assessment
vs Progression (NSA)/GLOSS stages

According to the the grade level stage expectations, what are
the defined student needs? (Needs to be documented in SEAS)

Counting: met
NSA/GLOSS: not met

Counting: not met
NSA/GLOSS: met

Counting: not met
NSA/GLOSS: not met

Need Strategy Instruction:

Small group Curriculum
Based Intervention (CBI)
- [Problem Solving CBI](#)
- [Number Sense CBI](#)
- [Fact Fluency CBI](#)

Progress Monitor with tool
based on diagnostic (pg 4)

**Need Number Knowledge
Instruction:**

Small group Curriculum
Based Intervention (CBI)
- [Counting CBI](#)

Progress Monitor with K-4
Counting Assessment
Progress Monitoring

**Needs Number
Knowledge and Strategy
Instruction:**

Numeracy Project
Intervention

Progress Monitor with
Numeracy Project Stage
probes

Monitor progress and adjust instructional focus as needed based on diagnostic assessments and progress monitoring data; review progress at minimum of every 9 weeks. Dismiss to lesser support as student meets goals/expectations.

[\(RtI documentation support access here\)](#)

*Parent Notification through written communication should be made when: entering an intervention, intervention changes are made or student is dismissed. Parents should also be informed of their child's performance on universal assessments.

Consider frequency, duration and group size for additional small group focused impact.

Universal Screeners <i>Given to all students to quickly identify at-risk students; monitor of tier 1 instruction</i>	Kindergarten	1st Grade	2nd Grade	3rd Grade	4th Grade
MAP <i>norm-referenced, computer adaptive interim assessment to measure mathematics skills</i>	3 x a year Fall, Winter, Spring	3 x a year Fall, Winter, Spring	3 x a year Fall, Winter, Spring	3 x a year Fall, Winter, Spring	3 x a year Fall, Winter, Spring
Fact Fluency Assessments <i>Library of assessments (including quarterly assessments, NSA, ASP and MDP) designed to measure and track student's strategy development, accuracy and automaticity of facts</i>	reported quarterly	reported quarterly	reported quarterly	reported quarterly	reported quarterly
Number Sense Assessment (NSA) <i>Measures the student's fluency and progress of development in foundational number sense ability</i>	As needed if not successful on ASP	As needed if not successful on ASP	As needed if not successful on ASP or GLOSS	As needed if not successful on ASP or GLOSS	As needed if not successful on ASP or GLOSS
Addition/Subtraction Progression (ASP) <i>Measures and tracks the student's strategy development, accuracy and automaticity of facts in the addition and subtraction progression</i>	2 x a year Winter & Spring Ongoing as needed	2 x a year Fall & Spring Ongoing as needed	2 x a year Fall & Spring Ongoing as needed	As needed based on FF data	As needed if not successful on MDP
Multiplication/Division Progression (MDP) <i>Measures and tracks the student's strategy development, accuracy and automaticity of facts in the multiplication and division progression</i>				2 x a year Fall & Spring Ongoing as needed after instruction begins	1 x a year Fall Ongoing as needed
K-4 Bentonville Counting Assessment <i>Measures the fluency of the number sequence aligned to grade level standards</i>	As Needed Based on RtI flowchart	As Needed Based on RtI flowchart	As Needed Based on RtI flowchart	As Needed Based on RtI flowchart	As Needed Based on RtI flowchart
GLOSS (Global Strategies Stage Assessment) <i>This assessment provides a series of questions that enable a teacher to identify the strategy stage a student is operating at on each of three strategy domains of the Number Framework- addition/subtraction, multiplication/division, and proportions and ratios</i>			As Needed Based on RtI flowchart	As Needed Based on RtI flowchart	As Needed Based on RtI flowchart
KEY		Not given	Bentonville School's Universal or Diagnostic		

Math Expectations According to Universal Assessments by Grade Level

Students should achieve the following performance according to the universal assessments:

	MAP: Math Fall/Winter/Spring			ACT Aspire	K-4 Counting Assessment End of year expectation		Fact Fluency Assessments (NSA, ASP, MDP)			
	Q1	Q2	Q3		Q4					
K	138	149	156	Not Assessed	Count 0-20 Stage 1	Count 0-100 Stage 1	Perceptual Subitizing FS	Conceptual Subitizing FS	10 pairs FS +/- within 5 FS	+/- within 10 FS
1st	159	169	175	Not Assessed	Count 0-120 Stage 2		Count on/ Count back within 10 FS	10 pairs FS Doubles within 10 FSB	Doubles plus 1 within 10 FSB Bridge to 10 ESB	+/- within 10 relate +/- FSB
2nd	174	183	188	Not Assessed	Count 0-1,000 Stage 3		Count on/ Count back within 20 KMA	Doubles within 20 KMA	Doubles plus 1 within 20 KMA Bridge to 10 KMA	+/- within 20 relate +/- FSB
3rd	187	195	200	Ready or Exceeding	Count 0-10,000 Stage 4		x2, x10 KMM	x0, x1, x5, x4 KMM	X8, x9, x6, x3, x7 KMM	relate x/÷ FSB
4th	200	207	211	Ready or Exceeding	Count 0-1,000,000 Stage 5		Previous Expectation	Previous Expectation	Previous Expectation	Previous Expectation

*Quarterly Learning Target assessments are continually monitored for mastery of grade level expectations.

Progress Monitoring Tool Based on Area of Need

Area of Need:	Diagnostic Used to Determine Need:	Use this Progress Monitoring Tool:	Goals:				
			Kinder	First	Second	Third	Fourth
Number Knowledge: Counting	K-4 BCA Stage 1-5	Number Knowledge Progress Monitoring	Stage 1 23	Stage 2 23	Stage 3 23	Stage 4 23	Stage 5 23
Strategy: Number Sense	Number Sense Assessment K1, K4-K5	Early Number Sense	10	10	10	10	10
Strategy: Number Sense	Number Sense Assessment K2-K3	Subitizing Progress Monitoring Subitizing Cards	Perceptual 15 Conceptual 15	30	30	30	30
Strategy: Number Sense	Number Sense Assessment K6 - K7, F1, F2	Compose and Decompose Progress Monitoring	7	7	7	7	7
Strategy: Fact Fluency	Addition and Subtraction Progression K4, K5	Representing Addition and Subtraction Progress Monitoring	10	10	10	10	10
Strategy: Fact Fluency	Addition and Subtraction Progression K3	Ten Pairs Progress Monitoring	10	10	10	10	10
Strategy: Fact Fluency	Addition and Subtraction Progression F1 - F4, S1 - S4	Mental Strategies to 10 Progress Monitoring Mental Strategies to 10 Student Mental Strategies to 20 Progress Monitoring Mental Strategies to 20 Student	N/A	within 10 16	within 20 16	within 20 16	within 20 16
Strategy: Fact Fluency	Multiplication and Division Progression	Mental Strategies Mult/Div Mental Strategies Mult/Div Student	N/A	N/A	N/A	Multiplication only 11	Multiplication & Division 22
Strategy: Problem Solving	Quarterly Learning Target Assessments	Comprehension Representation Computation Strategy					



End of Year Number Knowledge Expectations

End of Grade
Level

At Risk	Cause for Concern	At Expectation	Above Expectation
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K-4 Bentonville Counting Assessment							IKAN Written Assessment			
Stage 0	Stage E1	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	
Kindergarten	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
1 st Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
2 nd Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
3 rd Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
4 th Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
5 th Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
6 th Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
7 th Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
8 th Grade	Stage 0 No Parts Mastered	FNWS/BNWS Mastered but R&S Not Mastered	FNWS/BNWS and R&S to 100 Mastered	FNWS/BNWS and R&S to 120 Mastered	FNWS/BNWS and R&S to 1000 Mastered	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional

FNWS – Forward Number Word Sequence

BNWS – Backward Number Word Sequence

R&S – Number Recognition & Number Sequence

Adapted by Bentonville Schools from Georgia Department of Education



End of Year Strategy (GLOSS) Stage Expectations

End of Grade Level	At Risk	Cause for Concern	At Expectation	Above Expectation
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	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
Kindergarten	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
1st Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
2nd Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive *addition/ subtraction	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
3rd Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive *multiplication/ division	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
4th Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive *addition/ subtraction	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
5th Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive *multiplication/ division	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
6th Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
7th Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional
8th Grade	Stage 0 Emergent	Stage 1 One-to-One Counting	Stage 2 Counting from One using materials	Stage 3 Counting from One by Imaging	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional

****By the end of 7th grade, students should have successfully completed through stage 8 of the GloSS. ****

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