



Data Interpretation Guide

FOURTH GRADE 2016-2017

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Established Benchmarks Levels

Fourth Grade

Measure	Beginning of Year		Middle of Year		End of Year	
	Performance	Benchmark Status	Performance	Benchmark Status	Performance	Benchmark Status
CBM/ORF	0 - 70	Well Below	0 - 82	Well Below	0 - 95	Well Below
	71 - 92	Below	83 - 104	Below	96 - 117	Below
	≥ 93	At/Above	≥ 105	At/Above	≥ 118	At/Above
CBM Maze	---	---	---	---	≥ 24	At/Above
D-ORF*	0 - 69	Well Below	0 - 78	Well Below	0 - 94	Well Below
	70 - 89	Below	79 - 102	Below	95 - 114	Below
	≥ 90	At/Above	≥ 103	At/Above	≥ 115	At/Above
DAZE	0 - 9	Well Below	0 - 11	Well Below	0 - 19	Well Below
	10 - 14	Below	12 - 16	Below	20 - 23	Below
	≥ 15	At/Above	≥ 17	At/Above	≥ 24	At/Above

*D-ORF - DIBELS® Next Oral Reading Fluency (DORF)

Massachusetts Public Schools' Norms: *Fourth Grade*

Subtest	Well Above Average	Above Average	Average	Low Average	Below Average	Well Below Average
Fall						
■ CBM/ORF	≥ 163	140-162	105-139	92-104	73-91	≤ 72
■ CBM Maze	≥ 30	23-29	16-22	14-15	11-13	≤ 10
■ D-ORF*	≥ 150	128-149	94-127	79-93	60-78	≤ 59
■ DAZE**	≥ 24	20-23	12-19	9-11	7-8	≤ 6
Winter						
■ CBM/ORF	≥ 180	156-179	122-155	109-121	94-108	≤ 93
■ CBM Maze	≥ 36	30-35	21-29	18-20	14-17	≤ 13
■ D-ORF*	≥ 165	145-164	115-144	101-114	79-100	≤ 78
■ DAZE**	≥ 28	24-27	15-23	13-14	10-12	≤ 9
Spring						
■ CBM/ORF	≥ 197	172-196	135-171	121-134	104-120	≤ 103
■ CBM Maze	≥ 41	35-40	26-34	22-25	17-21	≤ 16
■ D-ORF*	≥ 177	158-176	125-157	112-124	93-111	≤ 92
■ DAZE**	≥ 37	32-36	23-31	20-22	14-19	≤ 13

*D-ORF - DIBELS® Next Oral Reading Fluency (DORF) **DAZE Norms based on a National sample

National FAST CBM Reading & Adaptive Norms: *Fourth Grade*

Subtest	Well Above Average	Above Average	Average	Low Average	Below Average	Well Below Average
Fall						
FAST CBM Reading	≥ 167	149-166	116-148	103-115	86-102	≤ 85
FAST aReading	≥ 521	515-520	499-514	490-498	479-489	≤ 478
FAST aMath	≥ 215	214-215	209-213	206-208	201-205	≤ 200
Winter						
FAST CBM Reading	≥ 182	167-181	136-166	122-135	102-121	≤ 101
FAST aReading	≥ 529	521-528	505-520	499-504	486-498	≤ 485
FAST aMath	≥ 221	219-220	213-218	210-212	205-209	≤ 204
Spring						
FAST CBM Reading	≥ 198	178-197	150-179	135-149	115-134	≤ 114
FAST aReading	≥ 536	529-535	511-528	504-510	494-503	≤ 493
FAST aMath	≥ 229	225-228	218-224	214-217	208-213	≤ 207

Benchmarks for FAST CBM Reading & Adaptive Measures – Fourth Grade

Measure	Fall		Winter		Spring	
	Performance	Benchmark Status	Performance	Benchmark Status	Performance	Benchmark Status
CBM Reading	0 - 95	Well Below	0 - 109	Well Below	0 - 120	Well Below
	96 - 121	Below	110 - 134	Below	121 – 147	Below
	≥ 122	At/Above	≥ 135	At/Above	≥ 148	At/Above
aReading	0 - 476	Well Below	0 - 492	Well Below	0 - 498	Well Below
	477 - 495	Below	493 – 505	Below	499- 511	Below
	≥ 496	At/Above	≥ 506	At/Above	≥ 512	At/Above
aMath	0 - 202	Well Below	0 – 206	Well Below	0 - 209	Well Below
	203 - 208	Below	207 – 211	Below	210 – 216	Below
	≥ 209	At/Above	≥ 212	At/Above	≥ 217	At/Above

Expected Weekly Growth Rates for **CBM/ORF/D-ORF***, **CBM Maze**, & **DAZE**

GRADE 4		
Subtest	Realistic	Ambitious
CBM/ORF/D-ORF*	0.85	1.10
CBM Maze	0.30	0.46
DAZE	N/A	N/A

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From Fuchs, Fuchs, Hamlett, Walz, & Germann (1993). Formative evaluation of academic progress: How much growth can we expect? *School Psychology Review*, 22(1), 27-48.

Note: From C. Parker (2012). [*Utilizing CBM-MAZE to examine the weekly growth rates of grades 2-8 students' reading comprehension skills*]. Unpublished raw data.

Shaping Expectations...

Predicting MCAS Success in Grade 4

- A new statistical analysis helps delineate cut scores that students need to achieve to establish the odds in their favor for scoring either **Proficient or Advanced** on the **English Language Arts MCAS**.

Grade 4 <i>Fall ORF</i>	Odds Prof./ Adv.
98	70%
105	80%
115	90%
Grade 4 <i>Fall Maze</i>	Odds Prof./ Adv.
14	70%
16	80%
18	90%

Gain Scores Table: Fourth Grade

Subtest	Weeks	Ambitious	Typical	Less than Typical
CBM/ORF/D-ORF*	5	≥ 7	4-6	≤ 3
	8	≥ 10	7-9	≤ 6
	10	≥ 12	9-11	≤ 8
CBM Maze	5	≥ 3	2	≤ 1
	8	≥ 4	2-3	≤ 1
	10	≥ 5	3-4	≤ 2
DAZE	NOT AVAILABLE			

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**Massachusetts 2016-2017
40th Percentile
Cut-off Scores for the 4-Square Instructional Grouping Tables**

Fourth Grade

Test	Fall 40th %	Winter 40th %	Spring 40th %
CBM/ORF	105	122	135
CBM Maze	16	21	26
D-ORF*	94	115	125
DAZE	16	17	26

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