

# ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

## Report Interpretation Guide

Metropolitan Achievement Tests,  
Eighth Edition

**APRIL 2009  
ADMINISTRATION**

**GRADE**

**K**

Arkansas Department of Education



**METROPOLITAN8**  
Eighth Edition

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## Introduction

This Eighth Edition of the *Metropolitan Achievement Tests* (METROPOLITAN8) is the continuation of a distinguished line of achievement tests. First published in the 1930s, the Metropolitan series has provided reliable and valid assessment of achievement in the nation's schools for over sixty years. This Eighth Edition was undertaken in order to match the content more closely with current curricula, expand the tests' scope (including emphasis on basic skills as well as higher-order thinking processes, strategies, and problem solving), and provide the most recent normative information.

METROPOLITAN8 includes a variety of tests in the important areas of reading and mathematics.

### Special Features

- The METROPOLITAN8 Practice Page is designed to accommodate students who require more practice to reach a comfort level with test-taking as well as those who need a minimal amount of practice.
- Sounds and Print, providing a measure of the reading foundations of phonemic awareness and word recognition skills, appears at the Preprimer (K.0 to K.5) through Elementary 1 (Grade 3) levels.
- The Mathematics tests at all levels incorporate process standards identified in the National Council of Teachers of Mathematics *Standards 2000* document (*Principles and Standards for School Mathematics*). The mathematics reform heralded by the *Standards* is represented in the multiple-choice format while the strength of past editions is maintained. This means traditional content, as well as topics that have received greater emphasis since the introduction of the *NCTM Standards*, is included. Strategies for estimation, data analysis, probability and statistics, and reasoning are examples of such topics.
- Test items are written to be interesting and straightforward. Test pages are designed to be easy to read, stimulating, and to resemble the materials children see every day in the classroom, while recognizing that, in a testing situation, students may need help negotiating their way through the test. Formats, page layout, typeface, graphic elements, and illustrations have been carefully designed to enhance students' performance, not distract or confuse them.

## **What's Measured**

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METROPOLITAN8 provides assessment of students' achievement in reading and mathematics at appropriate levels. Throughout all content areas, tests reflect a balance between important foundational knowledge and skills and higher-level processes and strategies. There is an emphasis on realistic and meaningful contexts, the interactive nature of literacy development, and the student as a thinking participant in his or her own educational growth.

### **Sounds and Print**

As a foundation for constructing meaning from text, a child must recognize and discriminate among sounds, recognize letters, understand basic conventions of print, associate letters and groups of letters with the sounds they commonly represent (phoneme-grapheme relationships), and recognize basic words and their meanings. The Sounds and Print test has been expanded to provide information in these important areas from the beginning of kindergarten through the end of grade 3. These grade-appropriate tests can help document both growth and needs in these skills at the Preprimer through Elementary 1 levels.

### **Mathematics**

The mathematics portion of METROPOLITAN8 is a single Mathematics test given at the Primer level.

The Mathematics tests reflect a balanced mathematics curriculum. Attention is given to fundamental skills of mathematics as well as higher-order thinking skills like problem solving and reasoning. Many concepts are tested at more than one level of thinking. Thus if a student's performance is lower than expected, it is possible to determine whether there is a lack of basic understanding of concepts or a weakness in applying the skills.

## Types of Scores on the Score Reports

The various types of scores utilized in METROPOLITAN8 have different uses and yield different kinds of information. Since the underlying properties of these scores are not necessarily the same, the particular score type to be used to interpret test results depends on the purpose for which the test was administered. Types of scores that are frequently utilized in METROPOLITAN8 are described below.

### Raw Scores

Raw scores are tied to a specific subtest and test content. A raw score refers to the number of test questions a student answered correctly, and its interpretation is limited to that set of questions. Because subtests differ in length, content, and difficulty, raw scores across subtests or test levels cannot be compared directly. Therefore, raw scores provide limited information about the relative performance of students.

It is not appropriate to use raw scores to compare performance over time or when different test levels have been administered. Instead, we convert raw scores into scaled scores, enabling the comparison of students' test scores with those of other students and the evaluation of changes in student performance across test levels and testing occasions. A scaled score can then be converted to one or more other derived scores, allowing for further interpretation and evaluation of the test results.

### Scaled Scores

Scaled scores have the advantage of representing approximately equal units on a continuous scale. That is, a difference of 5 points between two students' scores represents the same amount of difference in achievement wherever it occurs on the scale. In addition, the METROPOLITAN8 scaled score system expresses student performance across all test levels of any given subtest on a single scale. For example, the Reading Comprehension subtest is linked across 11 test levels from Primary 1 through Secondary 3, forming one continuous scale that makes it possible to compare scores from test level to test level. Scaled scores are especially suitable for comparing student performance in a particular subject area over time.

While scaled scores are comparable across test levels for the same subtest or total, they are not comparable from one content area to another or across subtests within a content domain total. For example, a scaled score on the Reading Comprehension subtest cannot be compared with a scaled score on the Spelling subtest, nor can a scaled score on the Reading Vocabulary subtest be compared with a scaled score for Total Reading. Although these scaled scores may look similar, each subtest has its own scaled score system. For this reason, scaled scores cannot be used to develop score profiles across subtests.

Once a raw score earned on a particular subtest has been converted to its corresponding scaled score, the *test level* that was administered is no longer a concern. The scaled score can then be converted to other derived scores such as percentile ranks, stanines, and normal curve equivalent scores.

## Individual Percentile Ranks

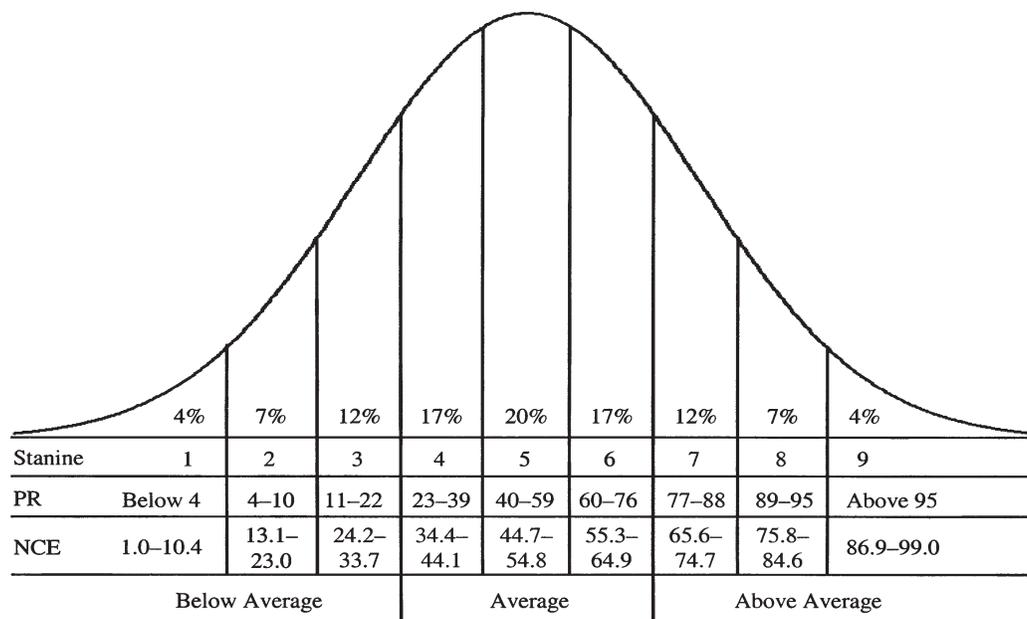
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Percentile ranks range from a low of 1 to a high of 99, with 50 denoting average performance. Percentile ranks compare the relative standing of a student with students in a reference group who were in the same grade when they completed the same subtest at a comparable time of the year. For example, a percentile rank of 75 means that for a particular subtest the student performed as well as or better than 75% of the students in the reference group. The reference group may comprise a national or local sample of students and may represent a variety of population variables. Percentile ranks must always be interpreted with regard to the reference group from which they were derived.

Percentile ranks do not represent actual amounts of achievement. Furthermore, percentile ranks do not represent equal units along a scale. For example, the difference in achievement between percentile ranks 5 and 10 is not the same as the difference between percentile ranks 50 and 55. Percentile ranks do not represent equal units and their interpretation is limited to the reference group from which they were derived. For that reason, percentile ranks are best used for reporting scores when position within a reference group is of primary interest.

## Stanines

Stanines range from a low of 1 to a high of 9, with 5 designating average performance. Stanines, like percentile ranks, indicate a student's relative standing when compared to a reference group. In contrast to percentile ranks, stanines represent approximately equal units of achievement. For example, the difference between stanines 2 and 4 represents about the same difference in achievement as the difference between stanines 5 and 7. Stanines are particularly useful for comparing or profiling a student's scores across subtests. Another benefit of using stanines is that broad performance categories can be easily identified. Usually, stanines of 1, 2, and 3 indicate *Below Average* performance; 4, 5, and 6 indicate *Average*; and 7, 8, and 9 indicate *Above Average*. The relationship between stanines, percentile ranks, normal curve equivalents, and performance categories in a normally distributed set of scores is shown in Figure 1.



**Figure 1. A Normal Distribution of Stanines, Percentile Ranks (PR), Normal Curve Equivalents (NCE), and Performance Categories**

## Normal Curve Equivalents

The normal curve equivalent (NCE) is a normalized standard score with a mean of 50 and a standard deviation of 21.06. This score is most often used to enable test users to manipulate the test data algebraically. NCEs may be obtained by converting percentiles to normalized z-scores and making the transformation

$$\text{NCE} = 50 + 21.06z.$$

In contrast to percentile ranks, NCEs provide an equal interval scale; thus, they should be used instead of percentile ranks when interpolating or averaging scores. Percentile ranks and normal curve equivalents have a direct, fixed relationship that is shown in Table 1, Normal Curve Equivalents Corresponding to Percentile Ranks, and Table 2, Percentile Ranks Corresponding to Normal Curve Equivalent Ranges. Table 1 provides NCEs corresponding to integer percentile ranks and is convenient to use when converting percentile ranks to NCEs. To convert NCEs to percentile ranks, Table 2 provides a percentile rank corresponding to ranges of NCEs.

**Table 1. Normal Curve Equivalents Corresponding to Percentile Ranks**

Percentile Rank	NCE						
1	1.0	26	36.5	51	50.5	76	64.9
2	6.7	27	37.1	52	51.1	77	65.6
3	10.4	28	37.7	53	51.6	78	66.3
4	13.1	29	38.3	54	52.1	79	67.0
5	15.4	30	39.0	55	52.6	80	67.7
6	17.3	31	39.6	56	53.2	81	68.5
7	18.9	32	40.2	57	53.7	82	69.3
8	20.4	33	40.7	58	54.3	83	70.1
9	21.8	34	41.3	59	54.8	84	70.9
10	23.0	35	41.9	60	55.3	85	71.8
11	24.2	36	42.5	61	55.9	86	72.8
12	25.3	37	43.0	62	56.4	87	73.7
13	26.3	38	43.6	63	57.0	88	74.7
14	27.2	39	44.1	64	57.5	89	75.8
15	28.2	40	44.7	65	58.1	90	77.0
16	29.1	41	45.2	66	58.7	91	78.2
17	29.9	42	45.7	67	59.3	92	79.6
18	30.7	43	46.3	68	59.8	93	81.1
19	31.5	44	46.8	69	60.4	94	82.7
20	32.3	45	47.4	70	61.0	95	84.6
21	33.0	46	47.9	71	61.7	96	86.9
22	33.7	47	48.4	72	62.3	97	89.6
23	34.4	48	48.9	73	62.9	98	93.3
24	35.1	49	49.5	74	63.5	99	99.0
25	35.8	50	50.0	75	64.2		

**Table 2. Percentile Ranks Corresponding to Normal Curve Equivalent Ranges**

<b>NCE Range</b>	<b>Percentile Rank</b>						
1.0-4.2	1	36.2-36.8	26	50.4-50.8	51	64.6-65.2	76
4.3-8.7	2	36.9-37.4	27	50.9-51.3	52	65.3-65.9	77
8.8-11.8	3	37.5-38.0	28	51.4-51.8	53	66.0-66.6	78
11.9-14.3	4	38.1-38.6	29	51.9-52.4	54	66.7-67.3	79
14.4-16.3	5	38.7-39.3	30	52.5-52.9	55	67.4-68.1	80
16.4-18.1	6	39.4-39.8	31	53.0-53.4	56	68.2-68.9	81
18.2-19.7	7	39.9-40.4	32	53.5-54.0	57	69.0-69.7	82
19.8-21.1	8	40.5-41.0	33	54.1-54.5	58	69.8-70.5	83
21.2-22.4	9	41.1-41.6	34	54.6-55.1	59	70.6-71.4	84
22.5-23.6	10	41.7-42.2	35	55.2-55.6	60	71.5-72.3	85
23.7-24.7	11	42.3-42.7	36	55.7-56.2	61	72.4-73.2	86
24.8-25.8	12	42.8-43.3	37	56.3-56.7	62	73.3-74.2	87
25.9-26.8	13	43.4-43.8	38	56.8-57.3	63	74.3-75.3	88
26.9-27.7	14	43.9-44.4	39	57.4-57.8	64	75.4-76.4	89
27.8-28.6	15	44.5-44.9	40	57.9-58.4	65	76.5-77.6	90
28.7-29.5	16	45.0-45.5	41	58.5-59.0	66	77.7-78.9	91
29.6-30.3	17	45.6-46.0	42	59.1-59.6	67	79.0-80.3	92
30.4-31.1	18	46.1-46.5	43	59.7-60.1	68	80.4-81.9	93
31.2-31.9	19	46.6-47.1	44	60.2-60.7	69	82.0-83.6	94
32.0-32.6	20	47.2-47.6	45	60.8-61.3	70	83.7-85.7	95
32.7-33.4	21	47.7-48.1	46	61.4-62.0	71	85.8-88.1	96
33.5-34.1	22	48.2-48.7	47	62.1-62.6	72	88.2-91.2	97
34.2-34.8	23	48.8-49.2	48	62.7-63.2	73	91.3-95.6	98
34.9-35.5	24	49.3-49.7	49	63.3-63.9	74	95.7-99.0	99
35.6-36.1	25	49.8-50.3	50	64.0-64.5	75		

## Content Cluster Performance Categories

An analysis of performance on the various content clusters and subclusters can be useful in identifying students' strengths and weaknesses within a broader content area. For example, if a student earns a Mathematics score that is lower than expected, a cluster analysis of this subtest will help determine whether the student's performance was consistently low for all of the subclusters within Mathematics or whether difficulties with a particular subcluster, e.g., Number and Operation, contributed to the low Mathematics score.

METROPOLITAN8 provides an analysis of content clusters for most subtests in the battery. For each level and form of METROPOLITAN8, frequency distributions of individual raw scores on each content cluster are generated separately by grade, form, and time of year. The raw score interval corresponding to each stanine is then determined. Performance categories are established as *Below Average* (stanines 1, 2, and 3); *Average* (stanines 4, 5, and 6); and *Above Average* (stanines 7, 8, and 9). For individual students, then, a raw score on a particular content cluster can be converted to a performance category, which provides a comparison of the student's performance with that of a national sample of students in the same grade taking the same test.

It should be noted that this approach to the interpretation of performance measured by a norm-referenced test is in contrast to the setting of criterion scores (e.g., "performance levels"). The norm-referenced approach is related to the actual performance of students in the nation rather than to stated expectations for these students.

## The Reports for Arkansas for Grade K

This section provides information about the METROPOLITAN8 reports that will be provided for Arkansas students in grade K. Arkansas students in grade K are being assessed with one Reading and one Mathematics subtest. Therefore, the reports for grade K for Arkansas students will not have any battery totals and will have only two subtests identified on the score reports. Four reports are generated for Arkansas: 1) Student Report; 2) Master List of Test Results; 3) Administrator's Data Summary; 4) Item Analysis Summary.

### What Information Is on the Arkansas METROPOLITAN8 Student Report?

An example Student Report is shown in Figure 2. The top half of the report shows identifying information, the names of the subtests taken, and scores for each of these tests. The bottom part of the Student Report presents a close-up look at how well the student did in specific subject areas.

Different types of scores are available for METROPOLITAN8. Each type of score is used in a different way to understand how the student performed on the test.

#### Raw Score

The raw score is simply the number of questions that the student answered correctly. (The number of items is shown to the left of the raw score and represents the total number of questions included in the subtest.) Because the subtests are of different lengths, and because one subtest may be slightly harder or easier than another, the raw score cannot be compared from one subtest to another. For example, a raw score of 20 on the Sounds and Print subtest does not mean the same thing as a raw score of 20 on the Mathematics subtest.

#### Scaled Score

Scaled scores can be used to show how much a student has progressed from one year to the next within a particular subject area. If this year's scaled score is higher than last year's, growth has occurred. The scaled score for one subject area test cannot be compared to the scaled score for another.

## Percentile Ranks–Stanines (PR–S)

Percentile ranks (PR) and stanines (S) are useful because they can be compared from one subject area to another. A percentile rank shows the percentage of students in the comparison group whose scores were equal to or lower than this student's score. Percentile ranks range from a low of 1 to a high of 99, with 50 meaning "average." Percentile ranks do not stand for actual amounts of a student's knowledge. A percentile rank of 42, for example, does not mean that the student answered 42 percent of the questions correctly or that the student has learned 42 percent of the skills taught. A percentile rank of 42 means that this student has done as well as or better than 42 percent of the group with which he or she is being compared.

Like percentile ranks, stanines show how a student performed in relation to a group and can be compared from one subject area to another. Stanines range from a low of 1 to a high of 9, with 5 meaning "average." Stanines 1, 2, and 3 are considered *Below Average* scores; stanines 4, 5, and 6 are considered *Average* scores; and stanines 7, 8, and 9 are considered *Above Average* scores.

## Normal Curve Equivalent

The normal curve equivalent (NCE) is derived from the percentile rank and is used primarily for research purposes or for averaging scores.

## National Grade Percentile Bands

National grade percentile bands are another way of looking at percentile ranks. By comparing any two bands, you can easily see how the student did in one area compared with another. If the two bands overlap, however, there is probably too little difference between the two scores to have any meaning.

## Content Clusters

Content clusters, shown in the lower half of the Student Report in Figure 2, give teachers a way to look at specific skills within a general subject area and identify areas of difficulty or strength. Next to the cluster name is information related to the raw score (RS), number of points possible (NP), and the number attempted (NA) for each cluster.

The next set of information indicates whether the student scored *Below Average*, *Average*, or *Above Average*. A check mark in the "Below Average" column means that the student scored in the bottom 23 percent of the METROPOLITAN8 comparison group. A check mark in the "Average" column means that the score was in the middle 54 percent, and a check mark in the "Above Average" column means that the score was in the top 23 percent. If a score has an "H" in the "Average" column, it means that the student scored on the high side of average. If the score has an "L" in the "Average" column, it means that the student scored on the low side of average.

TESTS AND TOTALS	Number of Items	Raw Score	Scaled Score	National PR-S	National NCE	National Grade Percentile Bands														
						1	10	30	50	70	90	99								
Sounds & Print	40	36	516	75-6	64.2															
Mathematics	30	26	539	80-7	67.7															

STUDENT AGE: 5 Yrs 11 Mos

SCHOOL: SAMPLE SCHOOL

DISTRICT: SAMPLE DISTRICT - 1234

TEST TYPE: MULTIPLE CHOICE

GRADE: K

TEST DATE: 04/09

METROPOLITAN LEVEL/FORM: Primer/IV

1999 NORMS: Spring National



Below is your Student Intervention Information.

Content Clusters	RS/ NP/ NA	Below Avg		Above Avg	
		RS/ NP	NA	Avg	Avg
<b>Sounds &amp; Print</b>	36/ 40/ 40			✓	✓
Phonemic Awareness	13/ 15/ 15			✓	✓
Phoneme-Grapheme Relationships	11/ 11/ 11				
Word Reading	12/ 14/ 14				
<b>Mathematics</b>	26/ 30/ 30			✓	✓
Number & Operation	9/ 11/ 11			✓	✓
Patterns & Relationships	3/ 3/ 3			✓	✓
Geometry & Spatial Sense	3/ 3/ 3			H✓	✓
Measurement	3/ 3/ 3			✓	✓
Data & Probability	3/ 3/ 3			✓	✓
Problem Solving Skills	6/ 7/ 7			✓	✓

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Figure 2. Arkansas METROPOLITAN8 Student Report

## **What Information Is on the Arkansas METROPOLITAN8 Master List of Test Results?**

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An example Arkansas METROPOLITAN8 Master List of Test Results report is shown in Figure 3. The Master List of Test Results will be provided in class and school modes. The top part of the report shows identifying information and the names of the subtests taken. The next row indicates the number of points possible. For example, for this report, Sounds and Print had a maximum score of 40 points and Mathematics had a maximum score of 30 points. The rest of the report contains information for each student. For each student, the student's age in years and months, raw score, scaled score, national percentile rank–stanine (PR–S), and national normal curve equivalent (NCE) are presented.



**Master List of Test Results  
For  
SAMPLE TEACHER**

SCHOOL: SAMPLE SCHOOL  
DISTRICT: SAMPLE DISTRICT - 1234  
TEST TYPE: MULTIPLE CHOICE

GRADE: K  
TEST DATE: 04/09

Student Listing is Alphabetical

	READING		MATHEMATICS		BATTERY TOTALS	
	Sounds & Print	Math	Math	Math	Math	Math
Number Possible	40	30				
<b>SAMPLESTUDENT, JANE I</b>	5 Yrs	11 Mos				
Raw Score	16	11				
Scaled Score	417	429				
National PR-S	7-2	6-2				
National NCE	18.9	17.3				
<b>SAMPLESTUDENT, JOHN M</b>	6 Yrs	06 Mos				
Raw Score	23	17				
Scaled Score	444	467				
National PR-S	23-4	26-4				
National NCE	34.4	36.5				
<b>SAMPLESTUDENT, SUE</b>	5 Yrs	10 Mos				
Raw Score	38	28				
Scaled Score	543	569				
National PR-S	85-7	92-8				
National NCE	71.8	79.6				
<b>SAMPLESTUDENT, DON I</b>	6 Yrs	04 Mos				
Raw Score	32	29				
Scaled Score	486	596				
National PR-S	56-5	96-9				
National NCE	53.2	86.9				
<b>SAMPLESTUDENT, JAN</b>	6 Yrs	02 Mos				
Raw Score	37	22				
Scaled Score	528	501				
National PR-S	80-7	55-5				
National NCE	67.7	52.6				

METROPOLITAN LEVEL/FORM: Primer/V  
1999 NORMS: Spring

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**Figure 3. Arkansas METROPOLITAN8 Master List of Test Results**

## What Information Is on the Arkansas METROPOLITAN8 Administrator's Data Summary?

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An example Arkansas METROPOLITAN8 Administrator's Data Summary report is shown in Figure 4. The Administrator's Data Summary will be provided in school, district, region, and state modes. The top part of the report shows identifying information and the names of the subtests taken. The next row indicates the number of points possible. For example, on this report, Sounds and Print had a maximum score of 40 points and Mathematics had a maximum score of 30 points. The next row indicates the number of students tested.

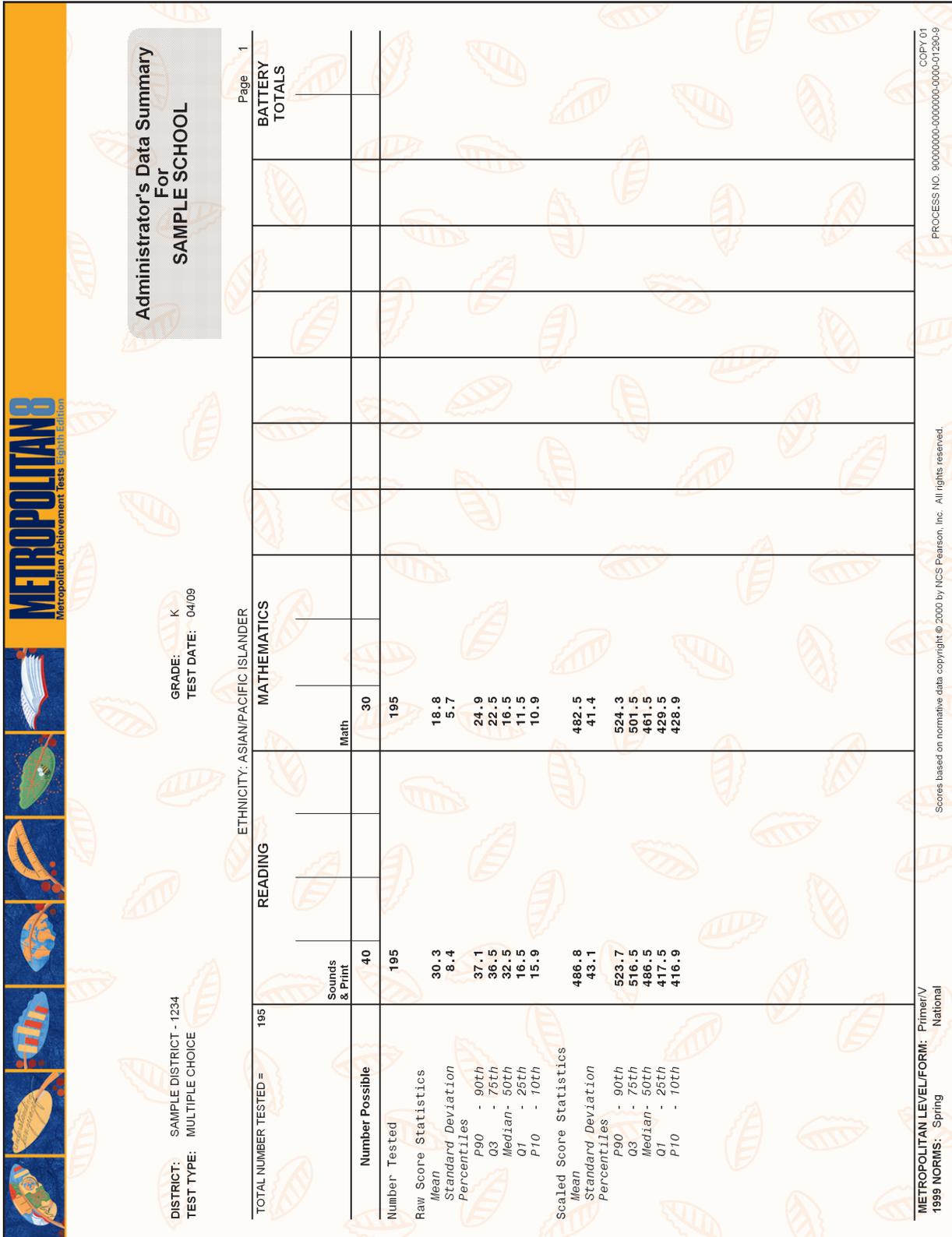
The next section contains statistics about the raw scores. The first number indicates the mean, or average, raw score (number of items correct) for the students who were tested. As an example, on the Sounds and Print test, the 195 students who were tested obtained an average raw score of 30.3 points. The standard deviation represents the average spread of the scores from the mean. In this example, the standard deviation is 8.4 points. The next set of information contains the raw scores of students performing at key percentile ranks. As an example, students who scored at the 90th percentile scored 37.1 points, students who scored at the 75th percentile scored 36.5 points, and so on.

The next section contains statistics about the scaled scores. The first number indicates the mean, or average, scaled score for the students who were tested. As an example, on the Sounds and Print test, the 195 students who were tested obtained an average scaled score of 486.8 points. The standard deviation represents the average spread of the scores from the mean. In this example, the standard deviation is 43.1 points. The next set of information contains the scaled scores of students performing at key percentile ranks. As an example, students who scored at the 90th percentile had a scaled score of 523.7, students who scored at the 75th percentile had a scaled score of 516.5, and so on.

Page 2 of the Administrator's Data Summary contains the percentile rank and stanine (PR-S) that is equivalent to the mean NCE achieved by the students included on the report. Following is a summary of the national percentile ranks. The number of students in each percentile band is presented, followed by the percentage of students in each percentile band. The percentage of students who scored at or above the 50th percentile is also included. The next section contains the number and percentage of students who scored in each of the stanine groups. Finally, page 2 of the Administrator's Data Summary report contains the mean NCE and standard deviation of the mean NCE along with the percentile ranks of students who scored at various NCEs.

The Administrator's Data Summary is based on a combined population and will be provided in the following disaggregations as applicable:

1. Gender: Female
2. Gender: Male
3. Gender: Unknown
4. Ethnicity: Asian/Pacific Islander
5. Ethnicity: African American
6. Ethnicity: Hispanic
7. Ethnicity: Native American
8. Ethnicity: Caucasian
9. Ethnicity: Unknown
10. All IEP Students
11. Non-Disabled Students
12. LEP Students
13. First Year LEP Students
14. Highly Mobile Students
15. Free and/or Reduced Lunch Students
16. Non-Economically Disadvantaged Students
17. Migrant Students
18. Gifted and Talented Students
19. ESI Code: Autism
20. ESI Code: Deaf-Blindness
21. ESI Code: Hearing Impaired
22. ESI Code: Mental Retardation
23. ESI Code: Multiple Disabilities
24. ESI Code: Orthopedic Impairment
25. ESI Code: Other Health Impairment
26. ESI Code: Serious Emotional Disturbance
27. ESI Code: Specific Learning Disability
28. ESI Code: Speech or Language Impaired
29. ESI Code: Traumatic Brain Injury
30. ESI Code: Visual Impairment



**Figure 4. Arkansas METROPOLITAN8 Administrator's Data Summary**



**Administrator's Data Summary  
For  
SAMPLE SCHOOL**

DISTRICT: SAMPLE DISTRICT - 1234  
TEST TYPE: MULTIPLE CHOICE

GRADE: K  
TEST DATE: 04/09

ETHNICITY: ASIAN/PACIFIC ISLANDER

TOTAL NUMBER TESTED =	READING		MATHEMATICS		BATTERY TOTALS
	Sounds & Print	Math			
195	40	30			
<b>Number Possible</b>	<b>40</b>	<b>30</b>			
Number Tested	195		195		
National Individual PR-S of Mean NCE	52.5		37.4		
National PR Summary					
76 - 99	49		49		
51 - 75	97		49		
26 - 50	0		0		
1 - 25	49		97		
%					
76 - 99	25		25		
51 - 75	50		25		
26 - 50	0		0		
1 - 25	25		50		
%					
Percent At/Above the National 50th PR	75		50		
National Stanine Summary					
(Above Average) 7, 8, 9	49		49		
(Average) 4, 5, 6	97		49		
(Below Average) 1, 2, 3	49		97		
%					
(Above Average) 7, 8, 9	25		25		
(Average) 4, 5, 6	50		25		
(Below Average) 1, 2, 3	25		50		
%					
National NCE Statistics					
Mean	51.0		42.8		
Standard Deviation	19.3		19.0		
Percentiles					
P90 - 90th	66.7		62.1		
Q3 - 75th	64.6		53.0		
Median - 50th	53.5		34.2		
Q1 - 25th	18.2		16.4		
P10 - 10th	18.1		16.3		

## **What Information is on the Arkansas METROPOLITAN8 Item Analysis Summary Report?**

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An example Arkansas METROPOLITAN8 Item Analysis Summary report is shown in Figure 5. The Item Analysis Summary report will be provided in district and state modes. The top part of the report shows identifying information. Next, the report presents information on the items measuring each objective and cluster within the given METROPOLITAN8 subtests. For each subtest, the report contains information on the item type (i.e., multiple choice), cluster, and percent selecting the correct answer.

TEST TYPE: MULTIPLE CHOICE		GRADE: K	RESPONSE ANALYSIS		NOTES
TEST CLUSTER OBJECTIVE Items		TEST DATE: 04/09	Item Number	PERCENT CORRECT	
			DISTRICT	NATIONAL	
<b>SOUNDS AND PRINT PHONEMIC AWARENESS</b> <b>RHYMES</b> Match two words that rhyme.		11	50	94	
		12	50	90	
		13	20	89	
		14	40	85	
		15	40	91	
<b>CLUSTER SUMMARY FOR Rhymes</b>					
5 Items Mean p-value Above Average Below Average					
<b>BEGINNING SOUNDS</b> Match two words that begin with the same sound(s).		1	20	93	
		2	50	90	
		3	80	94	
		4	0	86	
		5	20	90	
<b>CLUSTER SUMMARY FOR Beginning Sounds</b>					
5 Items Mean p-value Above Average Below Average					
<b>ENDING SOUNDS</b> Match two words that end with the same sound(s).		6	85	81	
		7	35	78	
53 12 60					

Item Analysis Summary For SAMPLE DISTRICT



Figure 5. Arkansas METROPOLITAN8 Item Analysis Summary Report

# ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

1 2 3 4 5 6 7 8 9 10 11 12 A B C D E