

## How to Begin with Pre-Algebra & Pre-Geometry

Please review list and check off items when complete.

### **How to Assess**

- O Choose to administer typical and/or adapted items
  - -- typical items: measure full understanding
  - -- adapted items: measure partial understanding
- O Gather test item materials
- O Gather adapted materials
- O Read Pre-Algebra & Pre-Geometry Overview (Appendix A):
  - -- instructions/scoring
  - --- basal (5 consecutive correct)
  - -- ceiling (5 consecutive incorrect)
  - -- test all 5 subtests (random order of subtests)
  - -- score assessment to establish starting section
- O Identify starting lesson within section

#### Assessment Tips:

- To save time and reduce testing amount for students, gather materials for one subtest. Test all students, individually, in that subtest. Repeat with remaining 4 subtests. Note: with a classroom of 10 students, 1- 2 subtests/day or more can be completed with each student depending upon disability needs presented.
- Assemble assessment kits for each subtest. Use materials lists provided to assist. Print
  all materials from CD and place in plastic zipper bag. Gather classroom materials and
  place in same bag. Label with Kit materials list.
- 3. Assign each teacher a subtest to prep materials for typical & adapted items. and place prepared assessment kits for each subtest in an area for checkout.
- 4. Begin teaching Pre-Algebra & Pre-Geometry. Choose a lesson from a section you believe is most appropriate for your students. Teach the lesson. When you decide, give Sensing Math or a simple classroom game for vocabulary practice to a para-professional to work with remaining students while you assess students individually.

## How to Prepare for a Lesson

- Identify your student group(s)
  - O Choose type of group (you may run more than one type of group)
  - ✓Based on grade level correlation/standards
  - ✓Based on math knowledge assessment
  - ✓Based on math knowledge teacher choice of section

#### Set your Schedule

- O Schedule X minutes instruction/day
- O Students in different levels can work in same group
- O Consider scheduling additional math practice time

#### Prepare Lesson

- O Read CSA (Concrete, Semi-concrete, Abstract)
- O Read First Look through remainder of lesson
- Gather materials noted in lesson
   \*manipulatives/tools from Pre-Algebra & Pre-Geometry kit
   \*classroom items
   \*aurripulat kit materials (coords, posters, workmats)
  - \*curricular kit materials (cards, posters, workmats)
- Print math tools from CD
- O Print worksheets (skill drill & problem solving at L1, L2, or L3)
- O Print pic-symbols (vocabulary and lesson)

Note: It is important to read the lesson prior to gathering your materials so materials are chosen according to the specific needs of your students.





## **Organizing Pre-Algebra and Pre-Geometry**

Please review list and check off items when complete.

## **Review & Identify Items in the Curricular Kit**

- Pre-Algebra and Pre-Geometry Overview
- Teacher Guide
- □ Workmats (47)
- □ Fraction Circles\* (demo)
- □ Assessment Flip-book & Student Protocols (10)
- Desters (37)
- Vocabulary Cards and Content Cards (Numerals) Sort Vocabulary Cards into words and sequential numbers. Place number card sets in numerical order. Alphabetize word cards.
- CD (in lid of box)

## **Review & Identify Items in the Manipulative Kit**

(organize in tubs, on shelves, boxes, etc.)

- □ MathLine 31 & Integer MathLines (teacher and student)
- Pocket Chart (Place Value chart)
- □ Fraction Tools [fraction model, fraction circles\*]
- D Pattern Blocks, large [hexagon, rhombus, triangle, trapezoid]
- Building Blocks [3-D shapes: rectangular prism, triangular prism, cylinder, cube, other]
- □ Sweep tray
- Assistive Technology [All-Turn-It Spinner, Step-by-Step communicator]
- Measurement & Geometry Tools [rulers, Ang-legs, protractor with arm, circle protractor]
- □ Circle counters (2-sided)
- Additional Math Tools [rubber stamps, large calculator]

## **Review & Identify Items on the CD**

- □ Worksheets (level 1, level 2, level 3)
  - O Skill Drill
  - O Problem Solving
- □ Math Tools [Workmats, I Learned Workmats, Posters, Student Tools]
- Pic-Symbols [Vocabulary, Lesson, Teaching]\*\*
- Teacher Resources
  - O Assessment Materials
  - Data Forms (Data Collection, Student Tracker form)
  - O Parent/Home Letters
- \*\*Pic-symbols are organized on CD by Section. Vocabulary words are alphabetized. Money cards and Number Notes are located on Members Only Website (see below).

## Review & Identify Items on Pre-Algebra & Pre-Geometry Members Only Website

- Extras (Workmat Samples, Spanish Home Letters, Money cards, Number Notes, Assessment Scoring Worksheet, and more!)
- □ In Action (video clips of Equals in classroom)
- Virtual Training (pre-recorded webinars)
- Online CD
- Note: Go to www.ablenetinc.com. Locate Pre-Algebra & Pre-Geometry page in Curriculum and Software. Click on log-in button on right.

You will need the ISBN number from Pre-Algebra and Pre-Geometry Overview to register.



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## Equals Pre-Algebra & Pre-Geometry Math CD Guide

## How to Access Lesson Pic-symbols

- 1. Open CD
- 2. Click on Lesson Sections Pic-symbol icon.
- 3. Click on desired section.
- 4. Locate lesson name in CD Table of Contents.
- 5. Note range of pages required for lesson (in CD Table of Contents).
- 6. Print range of pages.

## Search Option (for locating specific pic-symbol)

- 1. Open CD
- 2. Click on Lesson Sections Pic-symbol icon.
- 3. Click on desired section.
- 4. Make sure Find space is activated in toolbar at top (View -- Menu Bar choices).
- 5. Type pic-symbol name in Find space in toolbar at the top of document.
- 6. Press enter.
- 7. Print amount required.

### **How to Access Vocabulary Pic-symbols**

- 1. Open CD
- 2. Click on Pic-symbols.
- 3. Click on Vocabulary
- 4. Locate by vocabulary word (alphabetical) in CD Table of Contents.
- 5. Click on name in CD Table of Contents and print amount required.



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## Pre-Algebra & Pre-Geometry Assessment Kit

The Pre-Algebra & Pre-Geometry Assessment Kit is the set of assessment materials needed for test administration. Print, gather, and organize by subtest. Once materials are prepared and organized you may store your kit, ready to use when needed.

Contents of each Subtest Kit:	
Classroom materials	
CD Assessment materials	
Pre-Algebra & Pre-Geometry Kit materials subtest list	s

Also needed: Pre-Algebra & Pre-Geometry Assessment flip-book (curricular kit) Student Response Booklet (curricular kit) Pre-Algebra & Pre-Geometry kit materials (gather using subtest lists)

#### **General Directions**

1. Label each of 5 jumbo-size zipper bags with a subtest name: (Algebra, Data, Geometry, Measurement, Numbers & Operations).

- 2. Print materials from the CD and sort into the correct bag.
- 3. Gather materials and adapted materials for each subtest found in your classroom and sort into the appropriate bags.
- 4. Print and fasten subtest lists of kit materials (to gather from Pre-Algebra & Pre-Geometry kit) on appropriate subtest bags.

#### Print

- 1. Print one of each of the assessment materials from the CD with exception of duplicates listed below. For +/- tiles: Use red paper tiles or 2-sided circle counters (10). Write positive sign (+) on red side and negative sign (-) on non-red side of each.
- 2. Duplicates: print amounts as indicated below.

Fraction circles: Print and keep whole 1 fraction circle of each fraction amount (halves, thirds, fourths, fifths, sixths, eights, tenths and twelfths) and 5 complete whole circles (black) for Adapted items.

Print fraction circles that are to be cut apart during the assessment as follows. These are consumable unless you choose to laminate them: halves, thirds, eighths, tenths and twelfths (1 of each) and fourths, fifths, and sixths (2 of each).

Workmats: 22, 29, and 43 (4 each); these are consumable unless you choose to laminate them for use with erasable marker.

- 3. Cut apart number lines from workmats 39 and 40; cut out shape templates
- 4. Cut and assemble Round Numbers tool (Numbers and Operations) and print 2 & assemble Line Paper Template.
- 5. As you print materials from each subtest folder, place in appropriate subtest bag. You may wish to laminate materials for durability. If you choose not to laminate, a full list of consumables is included with Numbers and Operations Kit materials list to place on outside of bag (see included pages). This list is used to check supplies of consumable items before administering the assessment.





## **Classroom Materials**

Gather these items from your classroom and place in the appropriate subtest zipper bag.

Algebra Adapted: hook & loop material or sticky tac

Data Analysis and Probability markers sticky tac or tap index card

Measurement yardstick markers pencil masking tape Numbers and Operations markers scissors pencil sticky notes paper clips (20) scratch paper Adapted: sticky tac or tape,

paper clips (60 total); markers, crayons optional: slantboard or 3-ring binder

Notes:

Geometry markers pencil Adapted: sticky tac or tape 3-ring binder or slantboard



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## **Pre-Algebra & Pre-Geometry Kit Materials**

Cut out each list. Attach to subtest bag to show items needed from the Pre-Algebra & Pre-Geometry kit in addition to materials already placed in bag. Gather these items from your Pre-Algebra & Pre-Geometry kit prior to assessment.

<u>Measurement</u>	<u>Algebra</u>
rulers (3 - inch/cm)	pattern blocks
Adapted:	Adapted:
pocket chart	cubes (16)
Ang-legs	pocket chart
optional: Step-By-Step communicator,	MathLine 31
calculator or calculator software,	optional: number stamps,
number stamps	Step-by-Step communicator
Data Analysis and Probability calculator Adapted: pocket chart cubes (6) optional: Step-by-Step communicator, number stamps, calculator or calculator software	<u>Geometry</u> ruler (inches) protractor Adapted: pocket chart pattern blocks Ang-legs optional: number stamps, Step-By-Step communicator



## Pre-Algebra & Pre-Geometry Kit and Consumable CD Materials Lists

Cut out each list. Attach to subtest bag to show items needed from the Pre-Algebra & Pre-Geometry kit in addition to materials already placed in bag. Gather these items from your Pre-Algebra & Pre-Geometry kit prior to assessment.

\*Note: Place Consumable CD Materials list on Numbers and Operations subtest kit only if using paper (without lamination) for printed CD materials.

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Numbers and Operations calculator cubes Integer MathLine pattern blocks Adapted: pocket chart Ang-legs building blocks (including 20 cubes) Fraction model optional: Step by Step communicator, calculator/calculator software, number stamps	<ul> <li><u>Numbers and Operations</u> <u>Consumable CD Materials*</u></li> <li>Check items for replacement (print from CD):</li> <li>1. Fraction Circles for cutting apart: halves, thirds, eighths, tenths, &amp; twelfths (1 of each) and fourths, sixths, and fifths (2 of each)</li> <li>2. Workmats 23, 39, 40, 42 (1 of each) and 22, 29, 43 (4 of each) Adapted: 25 (1)</li> <li>3. Area models 4 and 6</li> </ul>
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This is an example schedule for an Equals Pre-Algebra & Pre-Geometry lesson, based off of the Pacing Guide in the Pre-Algebra and Pre-Geometry Overview manual for students at Levels 1, 2, and 3. Always use pacing appropriate tc your students' individual needs.

Level 1	Monday	Tuesday	Wednesday	Thursday	Friday
	First Look	Discussion	Teach: CSA	CSA review	Finish Worksheets
	Teach Vocabulary	Model Number Notes	CSA: Students	Skill Drill Worksheets	Sensing Math
	Monday	Tuesday	Wednesday	Thursday	Friday
	Problem Solving Demo	Finish Worksheets	Sensing Math	I Learned	Number Notes
	Problem Solving	Prove It			
	PS Worksheets				
Level 2	Monday	Tuesday	Wednesday	Thursday	Friday
	First Look	Teach: CSA	Sensing Math	Problem Solving Demo	I Learned
	Teach Vocab	CSA: Students		Problem Solving	Number Notes
	Discussion	Skill Drill Worksheets		PS Worksheets	
	Model Number Notes			Prove It	



This is an example schedule for an Equals Pre-Algebra & Pre-Geometry lesson, based off of the Pacing Guide in the Pre-Algebra and Pre-Geometry Overview manual for students at Levels 1, 2, and 3. Always use pacing appropriate to your students' individual needs.

Level 3	Monday	Tuesday	Wednesday	Thursday	Friday
	First Look	CSA	Prove It	*continue as previous	
	Teach Vocab	Skill Drill Worksheets	l Learned		
	Discussion	Problem Solving Demo	Number Notes		
	Model Number Notes	Problem Solving			
	Sensing Math	PS Worksheets			



This is an example schedule for an Equals Pre-Algebra & Pre-Geometry lesson, based off of the Pacing Guide in the Pre-Algebra and Pre-Geometry Overview manual for students at Levels 1, 2, and 3. Always use pacing appropriate to your students' individual needs.

Level 1	Monday	Tuesday	Wednesday	Thursday	Friday
	Monday	Tuesday	Wednesday	Thursday	Friday
		a <u>.</u>			
Level 2	Monday	Tuesday	Wednesday	Thursday	Friday



This is an example schedule for an Equals Pre-Algebra & Pre-Geometry lesson, based off of the Pacing Guide in the Pre-Algebra and Pre-Geometry Overview manual for students at Levels 1, 2, and 3. Always use pacing appropriate to your students' individual needs.

Level 3	Monday	Tuesday	Wednesday	Thursday	Friday



## Equals Pre-Algebra & Pre-Geometry Pre-Lesson Prep

Materials used routinely throughout Equals Pre-Algebra & Pre-Geometry can be printed, gathered, and placed in a designated location for easy access during lessons. Some materials can be placed in your math instructional area for the duration of the school year, section, or lesson. The following list includes these materials, provided for your convenience.

#### Equals Pre-Algebra and Pre-Geometry Curricular Kit

- Posters: Number Notes, Problem Solving Steps
- Vocabulary cards\* from lesson: place in small bag.

#### Equals Pre-Algebra and Pre-Geometry CD

- Vocabulary pic-symbols\* from lesson: print 2.
   (CD Pic-symbols Vocabulary) Cut apart and place in bag with Vocabulary cards.
- Lesson pic-symbols (CD Pic-symbols Lesson Sections)
- I Learned Workmats (CD Math Tools I Learned Workmats)
- Number Notes (Members Only Website Extras Number Notes)
- Worksheets for lesson: Skill Drill and Problem Solving (CD - Student Worksheets - Section/Lesson - Level). Worksheets are labeled with Content Area initials - Section letter - Lesson number.
- Counting window(s) (CD Math Tools Student Tools)

#### Classroom

- sticky tac or tape
- sticky notes or index cards
- markers
- heavy plastic tape (optional)
- small plastic zipper bags (for Concrete Connections)

#### Level 1 materials

from Equals Pre-Algebra and Pre-Geometry Manipulative Kit

- Pocket chart
- MathLines
- Sweep tray
- Calculator
- Step-by-Step communicator
- Number Stamps

from classroom

Stamp pad







## Mobile Materials Station Pre-Algebra & Pre-Geometry



2625 Patton Road Roseville, MN 55113-1308 800-322-0956 US & Canada 651-294-2200 outside US Fax 651-294-2259 (business) Fax 651-294-2222 (order)

www.ablenetinc.com

#### Equals Grouping: Math Knowledge and Grade Level

<u>Directions</u>: Identify section/lesson for each student. Write Section letter in each blank for group(s). List students by name in each group. Repeat to sort students by grade level to address standards. Use for your classroom, to team teach, and/or to share students as you build appropriate and manageable groups.

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Daily Schedule Directions: Write time/periods along the side. Use completed grouping template to schedule math instruction according to math knwoledge and/or grade level. Write names of groups and lesson component planned in each appropriate location on the schedule. Complete one sheet per day of week.

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Weekly Schedule Directions: Write school days of the week or similar in the headers and time/periods along the side. Use completed grouping template to schedule math instruction according to math knowledge and/or grade level. Write names of groups in appropriate location on the schedule.

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