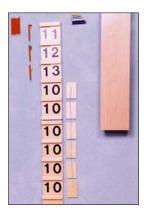
# Albanesi Curriculum Program (A.C.P.)

# **Math Curriculum (PRE-M)**







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#### INTRODUCTION

Montessori teachers use the Albanesi Curriculum Programs (A.C.P.) for tracking and assessing their students' academic progress. I am trying out this resource for the first time and have modified contents in the original document for ease of use and flexibility. The Math Curriculum Lab consists of 101 levels of Montessori exercises placed in sequential order from simple to increasingly more complex.

#### **USE OF WORK PLANS**

- 1. The benefit of using a comprehensive work plan lies in the convenience of being able to observe at a glance the entire range of a student's school work. When the student's work is completed, it may be checked off the work plan. The entire program is divided into 9 work plans.
- 2. Use the work plan to select an activity that requires a presentation. Give the new lesson and show the child how to use the curriculum cards and how they correspond to the Montessori materials. If the child has already received a presentation, he/she may simply work independently on the exercises.
- 3. Because in the Montessori environment there are days when the child uses the entire work period with manipulative materials and there is little or no work on paper, a notebook is assigned for each child's school work and kept in the classroom until the end of the school year. These notebooks are ready references for spontaneous parent conferences; they can be shown with pride at open houses and can be taken home at the end of the school year and saved as beautiful records of the students' work for years to come.

# THE EFFECTIVE IMPLEMENTATION OF THE ALBANESI CURRICULUM PROGRAM (A.C.P.)

- 1. GIVE A PRE-TEST TO STUDENTS (District recommended tests)
- 2. FROM THE PRE-TEST CREATE A WORKPLAN
- 3. LET STUDENT CHOOSE AN EXERCISE FROM WORK PLAN
- 4. FROM THE CARDS GIVE PRESENTATIONS AS NEEDED
- 5. ALLOW STUDENTS TO WORK AT THEIR OWN PACE
- 6. WHEN A WORK PLAN IS COMPLETED, GIVE A POST-TEST (not yet)

**INDEX** 

**OF** 

MATH CARDS (Task Cards)

PRE-M

## **BEGIN WORK PLAN #1 •**

#### NUMERATION

- 1a sandpaper numerals large math chalkboard
- 1b sandpaper numerals large math chalkboard
- 1c sandpaper numerals large math chalkboard

#### NUMBER RODS

- 2a random rods one at a time and match to number cards chalkboard
- 2b random rods stair formation and match to number cards chalkboard
- 2c stair formation bring #10 to other rug search for 10 as 9+1; 8+2; etc.
- 2d stair formation bring #9 to other rug search for 9 as 8+1; 7+2; etc.
- 2e stair formation bring #8 to other rug search for 8 as 7+1; 6+2; etc.

#### **QUANTITIES AND SYMBOLS**

- 3a spindle boxes copy 0 to 9 on chalkboard then on math paper
- 3b place specific quantities copy 0 to 9 on chalkboard; then on math paper
- 3c place specific quantities copy 0 to 9 on chalkboard; then on math paper
- 3d number tablets
- 3e apple tree or similar quantity counting game
- 3f tracing sequence

#### NUMBER RODS

- 4a stair formation see card for addition problems to solve
- 4b stair formation see card for addition problems to solve
- 4c stair formation see card for subtraction problems to solve

#### **CARDS AND COUNTERS**

5a lay-out game – practice numerals on chalkboard or math paper

#### NUMERATION

- 6a see card for inserting missing numerals use math paper
- 6b see card for inserting missing numerals use math paper
- 6c see card for inserting missing numerals use math paper

#### **QUANTITIES AND SYMBOLS**

- 7a colored bead-bars graph paper concept of MORE
- 7b colored bead-bars graph paper concept of MORE
- 7c colored bead-bars graph paper concept of FEWER
- 7d colored bead-bars graph paper concept of SAME
- 7e match numerals to picture cards
- 7f tray of colored bead-bars 1-10 and printed paper/colored pencils

#### **GOLDEN BEADS**

8a addition problems - color-coded chalkboard and color-coded paper

#### NUMBER RODS

- 9a stair formation see card for addition problems to solve
- 9b stair formation see card for subtraction problems to solve
- 9c stair formation see card for mixed problems to solve

#### **ADDITION OF SETS**

- 10a colored bead-bars see card
- 10b colored bead-bars see card
- 10c colored bead-bars see card
- 10d set of picture cards
- 10e set of picture cards

#### **GOLDEN BEADS – ADDITION**

11a see card for problems - color-coded chalkboard and color-coded paper

#### SEGUIN BOARDS – 11 to 19

12a match cards with bead-bars (10+1; 10+2; 10+3; etc.)

#### **NUMERATION**

13a insert missing numerals – use math paper

#### **GOLDEN BEADS – STATIC ADDITION**

14a write on color-coded chalkboard and color-coded math paper

#### **LINEAR COUNTING - THE HUNDRED CHAIN**

- 15a color-coded arrows for linear counting
- 15b blank arrows to identify intermediate numbers

#### **SEGUIN BOARDS – 11 to 19**

16a match cards with bead-bars – write on math paper

#### NUMERATION

17a insert missing numerals – use math paper

#### **GOLDEN BEADS – STATIC ADDITION**

18a write problems on color-coded chalkboard and color-coded paper

# **LINEAR COUNTING – HUNDRED CHAIN**

- 19a color-coded arrows for linear counting
- 19b blank arrows to identify intermediate numbers

# **NUMERATION**

- 20a insert missing numerals write on math chalkboard or graph paper
- 20b tray of colored bead-bars 1-10 and printed paper/colored pencils
- 20c number tablets to be inserted
- 20d apple tree or similar quantity counting game
- 20e tracing sequence

## **END 0F WORK PLAN #1 ●**

#### **BEGIN WORK PLAN #2 •**

#### **SEGUIN BOARDS 11 TO 19**

21a match cards with bead-bars and math paper

#### **HUNDRED BOARD**

22a one row at a time (horizontal: 12345678910)

#### **GOLDEN BEADS – STATIC ADDITION**

23a color-coded chalkboard and math paper

#### **ADDITION OF SETS**

24a use colored bead-bars

24b use colored bead-bars

24c use colored bead-bars

24d use picture cards labeled 10.D

24e use picture cards labeled 10.E

#### NUMERATION

25a inserting missing numerals – use math chalkboard or paper

#### **SEGUIN BOARDS**

26a match cards with bead-bars

#### **HUNDRED BOARD**

27a one row at a time (horizontal) to 20

#### LINEAR COUNTING - HUNDRED CHAIN

28a color-coded arrows

28b blank arrows

#### **ADDITION STRIP BOARD**

29a formation of 10 (1+9=; 2+8=; 3+7=; etc.)

29b formation of 9

29c formation of 8

29d formation of 12

#### **GOLDEN BEADS – STATIC ADDITION**

30a problems with color-coded chalkboard and color-coded math paper

#### **END OF WORK PLAN#2** •

#### **BEGIN WORK PLAN #3** •

#### **SEGUIN BOARDS 11 TO 19**

31a match cards with bead-bars

#### **HUNDRED BOARD**

32a one row at a time (horizontal) to 30

#### **ADDITION OF SETS**

33a use color-coded bead-bars

33b use color-coded bead-bars

33c use picture cards labeled 10.D

33d use picture cards labeled 10.E

#### **NUMERATION**

34a inserting missing numerals

#### **ADDITION STRIP BOARD**

35a combination slips at random

# **GOLDEN BEADS – DYNAMIC ADDITION**

36a color-coded chalkboard and math paper

#### **SEGUIN BOARDS – 11 TO 99**

37a match numerals of the 20's – copy on graph paper

#### **HUNDRED BOARD**

38a one row at a time (horizontal) to 40

#### **LINEAR COUNTING - HUNDRED CHAIN**

39a color-coded arrows

39b blank arrows

#### **GOLDEN BEADS – DYNAMIC ADDITION**

40a problems with color-coded chalkboard and color-coded math paper

#### END OF WORK PLAN #3 •

#### **BEGIN WORK PLAN #4 •**

#### **ADDITION OF SETS**

41a using colored bead-bars

#### **SEGUIN BOARDS 11 TO 99**

42a formation of 30s (30+1=; 30+2=; 30+3=; etc.)

#### **LINEAR COUNTING - THOUSAND CHAIN**

43a color-coded arrows

43b blank arrows

#### **GOLDEN BEADS – DYNAMIC ADDITION**

44a problems with color-coded chalkboard and color-coded math paper

#### **ADDITION OF SETS**

45a color-coded bead-bars

#### **LINEAR COUNTING - THOUSAND CHAIN**

46a color-coded arrows

46b blank arrows

#### **SEGUIN BOARDS 11 TO 99**

47a mixed numerals

#### **ADDITION STRIP BOARD**

48a random combination slips

#### NUMERATION

49a sequence with missing numerals

#### **GOLDEN BEADS – DYNAMIC ADDITION**

50a problems with color-coded chalkboard and color-coded math paper

#### **END OF WORK PLAN #4 ●**

#### **BEGIN WORK PLAN #5**

#### **ADDITION OF SETS**

51a colored bead-bars - see card

#### **SEGUIN BOARDS 11 TO 99**

52a mixed numerals

#### **NUMERATION**

53a sequence with missing numerals

#### **LINEAR COUNTING - THOUSAND CHAIN**

54a color-coded arrows

54b blank arrows

#### SKIP COUNTING

55a short chains of 2-3-4

55b short chain of 5

55c short chains of 5 - 6 - 7 - 8 - 9

# **GOLDEN BEADS - DYNAMIC ADDITION**

56a problems with color-coded chalkboard and color-coded math paper

#### **MEMORIZATION OF ADDITION FACTS**

57a finger board chart #3 – combinations of 3 +

57b finger board chart #3 – combinations at random

57c derived chart #4 - combinations at random

#### NUMERATION

58a hundred board – copy all the numbers on graph paper

58b sequence with missing numerals – use math chalkboard and math paper

58c sequence with missing numerals – use math chalkboard and math paper

#### **GOLDEN BEADS – STATIC MULTIPLICATION**

59a problems with color-coded chalkboard and color-coded math paper

# **SKIP COUNTING**

60a short chains of 5 - 6 - 7 - 8 - 9 - 10

60b long chains of 2-3-4-5

60c long chains of 6 - 7 - 8 - 9 - 10

# **END OF WORK PLAN #5**

#### **BEGIN WORK PLAN #6 •**

#### MEMORIZATION OF ADDITION FACTS

- 61a finger board chart #3 combinations at random
- 61b derived chart #4 combinations at random
- 61c the Dutch board #5 combinations at random

#### **GOLDEN BEADS – DYNAMIC ADDITION**

62a problems with color-coded chalkboard and color-coded math paper

#### LINEAR COUNTING

- 63a color-coded arrows
- 63b blank arrows

#### **MEMORIZATION OF ADDITION FACTS**

- 64a derived chart #4 combinations at random
- 64b the Dutch board #5 combinations at random
- 64c blank chart #6 from smallest to largest

#### **SNAKE GAME**

65a problems on card

#### **GOLDEN BEADS – STATIC MULTIPLICATION**

66a problems with color-coded chalkboard and color-coded math paper

#### **NUMERATION**

- 67a hundred board and graph paper
- 67b sequence with missing numerals graph paper
- 67c sequence with missing numerals graph paper

#### MEMORIZATION OF ADDITION FACTS

- 68a the Dutch board #5 combinations at random
- 68b blank chart #6 from smallest to largest
- 68c blank chart #6 combinations at random

#### **GOLDEN BEADS – STATIC SUBTRACTION**

69a problems with color-coded chalkboard and color-coded math paper

#### **SNAKE GAME**

70a problems on card

END OF WORK PLAN #6 ●

#### **BEGIN WORK PLAN #7 •**

#### SUBTRACTION STRIP BOARD

71a table of 9 – begin with 18-9=; 17-8=; 16-7=; etc.

71b table of 8

71c table of 7

#### **GOLDEN BEADS – ADDITION AND MULTIPLICATION**

72a problems with color-coded chalkboard and color-coded math paper

#### **MEMORIZATION OF ADDITION FACTS**

73a finger board #3 – random combinations

73b blank chart #6 - from smallest to largest

73c blank chart #6 – combinations at random

#### SUBTRACTION STRIP BOARD

74a table of 6

74b table of 5

74c table of 4

74d table of 3

74e table of 2

74f table of 1

74g combinations at random

#### **GOLDEN BEADS – STATIC SUBTRACTION**

75a problems with color-coded chalkboard and color-coded math paper

#### **MEMORIZATION OF SUBTRACTION FACTS**

76a finger board #2 - random combinations

76b blank board – tiles from 1 to 9

76c blank board - random combinations

#### **SKIP COUNTING**

77a short chains of 5 - 6 - 7 - 8 - 9

77b long chains of 2 - 3 - 4 - 5

77c long chains of 6 - 7 - 8 - 9 - 10

# **GOLDEN BEADS – ADDITION AND MULTIPLICATION**

78a problems with color-coded chalkboard and color-coded math paper

# **MEMORIZATION OF SUBTRACTION FACTS**

79a finger board #2 – random combinations

79b blank board - tiles from 1 to 9

79c blank board - random combinations

# **SNAKE GAME**

80a problems on card

**END OF WORK PLAN #7 •** 

#### **BEGIN WORK PLAN #8 •**

#### **GOLDEN BEADS – DYNAMIC SUBTRACTION**

81a problems with color-coded chalkboard and color-coded math paper

#### **MULTIPLICATION BEAD-BOARD**

82a tables of 1 - 2 - 3

82b tables of 4 - 5 - 6

82c tables of 7 - 8 - 9

82d subtraction problems

#### **SKIP COUNTING**

83a short chains of 5 - 6 - 7 - 8 - 9 - 10

83b long chains of 2-3-4-5

83c long chains of 6 - 7 - 8 - 9 - 10

## **GOLDEN BEADS - DYNAMIC MULTIPLICATION**

84a problems with color-coded chalkboard and color-coded math paper

# **MEMORIZATION OF SUBTRACTION FACTS**

85a finger board #2 - random combinations

85b blank board #3 - tiles from 1 to 9

85c blank board #3 - random combinations

# **MULTIPLICATION BEAD-BOARD**

86a tables of 1 - 2 - 3

86b tables of 4 - 5 - 6

86c tables of 7 - 8 - 9

# **SKIP COUNTING**

87a short chains of 5 - 6 - 7 - 8 - 9 - 10

87b long chains of 2 - 3 - 4 - 5

87c long chains of 6 - 7 - 8 - 9 - 10

# **GOLDEN BEADS – MULTIPLICATION, ADDITION, SUBTRACTION**

88a problems with color-coded chalkboard and color-coded math paper

# **MEMORIZATION OF MULTIPLICATION FACTS**

89a finger board #3 – random combinations
89b derived chart #4 – random combinations
89c blank chart #5 – from smallest to largest

# **GOLDEN BEADS - STATIC DIVISION**

90a problems with color-coded math paper

# **END OF WORK PLAN #8 •**

#### **BEGIN WORK PLAN #9** •

#### **MEMORIZATION OF SUBTRACTION FACTS**

91a finger board #2 – random combinations

91b blank board #3 - tiles from 1 to 9

91c blank board - random combinations

#### **SNAKE GAME**

92a problems on card

#### **SKIP COUNTING**

93a short chains of 5 - 6 - 7 - 8 - 9 - 10

93b long chains of 2 - 3 - 4 - 5

93c long chains of 6 - 7 - 8 - 9 - 10

#### **GOLDEN BEADS – ALL FOUR OPERATIONS**

94a problems with color-coded math paper

94b problems with color-coded math paper

94c problems with color-coded math paper

#### **MEMORIZATION OF MULTIPLICATION FACTS**

95a finger board #3 – random combinations

95b derived chart #4 - random combinations

95c blank chart #5 - from smallest to largest 95a addition

#### **UNIT DIVISION BOARD**

96a problems on card

#### MEMORIZATION OF DIVISION FACTS

97a finger board #1 – random combinations

97b blank chart #2 - random combinations

# **GOLDEN BEADS – DIVISION**

98a problems with math paper

#### **UNIT DIVISION BOARD**

99a problems on card

# **GOLDEN BEADS - ALL FOUR OPERATIONS**

100a problems with color-coded math paper100b problems with color-coded math paper100c problems with color-coded math paper

# **OPERATIONS IN THE ABSTRACT**

101a problems on card

**END OF WORK PLAN #9 •**