Chapter 2

01 This lesson should be practiced daily. Please go slowly as the student is digesting the nature of each number, not only the odd and evenness but also the composition of the number.

02 Practice daily from the beginning of the number building and focus on the picture for each number. The children should draw or paint a picture of each number picture. There can be much discussion on the pictures. They need to be meaningful to the child.

03 We can take this lesson into the world and explore what numbers are made of. For example, the oranges in the bowl, the number of people at the table tonight.

04 At the end of each practice put the pebbles away so that the child is building from the beginning at each practice session. Practice in the same way as the lesson and as the student gains confidence ask for add and subtract two without the pebbles for example in the car. The teacher can say a number and the child must say odd or even before attempting an answer. E.g., teacher says five, child says odd, teacher says add two, child responds odd seven. The important aspect of this exercise is that the child's understands whether the result is odd or even rather than the number.

05 This lesson is similar to the previous one but instead of working with 2s we are adding and subtracting with 4. When the student is proficient the teacher can start to move between adding and subtracting 2 and adding and subtracting 4. By the end of the week the child will be confident with this exercise.

06 It is very important for teachers to take their time with this lesson as it can be confusing for some students. You can

always go back to number building and number counting to see that the next number is in the opposite house. The next number implies 'add one. '

Chapter 3

03 01 I do feel that the video explains the practice for this lesson.

03 02 Children can often be adept with this exercise if the number 10 comes first, but become muddled if the units are said first. For example 10 + 6 is no problem but if teacher says I have 6 and you have 10 , the child can be hesitant. If the student is challenged in this way, use the pebbles so that he can see that six plus 10 is the same as 10+6. When the student is confident, this game can be played away from the table, in any environment.

03 03 We can have a lot of fun with this lesson by making up stories about the animals that we have chosen. The children can do drawings of the animals. Some of my students have come back after doing research into their chosen species.

If this is a lesson in class, we can play the bean bag game. Please refer to the next video on number games.

Chapter 4

04 01 This is a big lesson and teachers need to take time to practice each level. Do not move forward until the student is totally confident.

Begin with practicing adding odd 9

9+4

6+9

1+9 etc

Then adding with even 8

Always ask what even 8 needs to make a 10

Use the zigzag chart if needed .

8+6

7+8

etc

Now adding with odd 7.Here we are practicing taking away odd 3 from the other number

7+6

4+7

If the student is not able to do the subtraction of 3 easily go back to zigzag.

Once we have accomplished addition with 9,8 and 7 we begin to throw in the tens.

9+6 becomes 19+16

29+26

13+29

43+29

Remember to ask 'How many tens can we see first , then we look at the ones and ask 'can I make another ten? 'then we see how many ones will be left.

28+38

37+24

47+26

Once the student is proficient with adding 2 two digit numbers with ease, move to working mentally .

The next step is to use bigger numbers

69+87

How many tens do we see 8+6=14 and then the same way with the ones.

98+76

59+94

76+67

The next step is to work with three digit numbers

142+ 235

251+434

Now harder ones

358+496

456+789

I work from left to right so that we can become proficient at doing these calculations mentally.

04 02   Set out pebbles – ten and some ones. Practice taking away 9,8,7 or 6 . Ask the question 'can I take it from here?' pointing to the ones.

11-4

16-9

13-7

18-4

15-6

Now start throwing in more tens

23-9

41-8

76-4

92-7

When this level has been achieved we subtract tens as well as ones.

41-19

72-26

81-49

93-76

59-28

Please practice the exercise on the video of predicting how many tens will be left.

143-75

278-36

327-96

541-78

Chapter6   01

Practice mirror game with a partner or by using an actual mirror.

2x6

2x8

2x9

2x4

Once we have gained proficiency with the single digits

2x26

2x38

2x49

2x25

2x45

06 02   2x6

4x6

2x8

4x8

2x17

4x17

2x26

4x26

2x38

4x38

2x28

4x28

8x6

8x9

8x7

2x26

4x26

8x26

2x38

4x38

8x38

06 03   divide by 2

Practice mirror game reverse

14 divided by2

18 divided by 2

16 divided by 2

12 divided by 2

8   Divided by 2

0604

140 divided by 2

180 divided by2

120 divided by2

128 divided by2

146 divided by 2

162 divided by 2

34 divided by 2

56 divided by 2

78 divided by2

92 divided by 2

136 divided by 2

158 divided by 2

192 divided by 2

174 divided by 2

6.05

3x10

7x10

13x10

204x10

6.06

130 divided by 10

130 divided by 5

260 divided by 10

260 divided by 5

14x10

14x5

26x10

6 07

4x9

7x9

8x9

14x9

22x9

103x9

06 08

3x11

7x11

11x11

13x11

24x11

6.09

10 divided by 10,9,8,7,6,5,4,3,2

20 divided by 10,9,8,7,6,5,4,3,2

30 divided by 10,9,8,7,6,5,4,3,2,

21 divided by 19,9,8,7,6,5,4,3,2

Now we are seeing that there are enough remainders to give everyone more. This is an important step.

36 divided by 10,9,8,7,6,5,4,3,2.

42 divided by 10,9,8,7,6,5,4,3,2.

6.10

Practice grid building

4x5=5x4 then divide by 4 and 5

6x3=3x6 then divide by 6and 3

7x4=4x7 then divide by 7 and 4

8x3=3x8 then divide by 8 and 3

6.11

3x12

11x12

9x12

13x12

24x12

42x12

6. 12

6x8

6x4

6x10

6x14

6x24

6x7

6x9

6x13

6x17

6x23

7.02

Practice dividing a circle into

5 equal pieces

   6 equal pieces

9 equal pieces

   7 equal pieces

   chapter 8
   draw up your number chart.
   Practice multiplying and dividing your numbers including
   remainders by using this chart
   46 divided by 9
   7x6
   51 divided by 3
   Find all the prime numbers
   Find the factors of all the popular numbers.

Chapter 8 Multiply chart,

I have repeated myself in these videos. I hope that by explaining this chart construction in slightly different ways will help everyone to fully understand how to construct and use this most important tool.