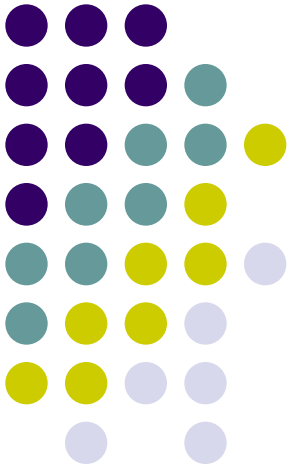
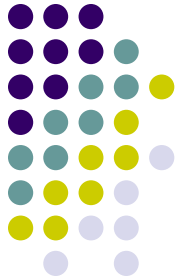
Patterns that Grow

S^3 Post Discussion



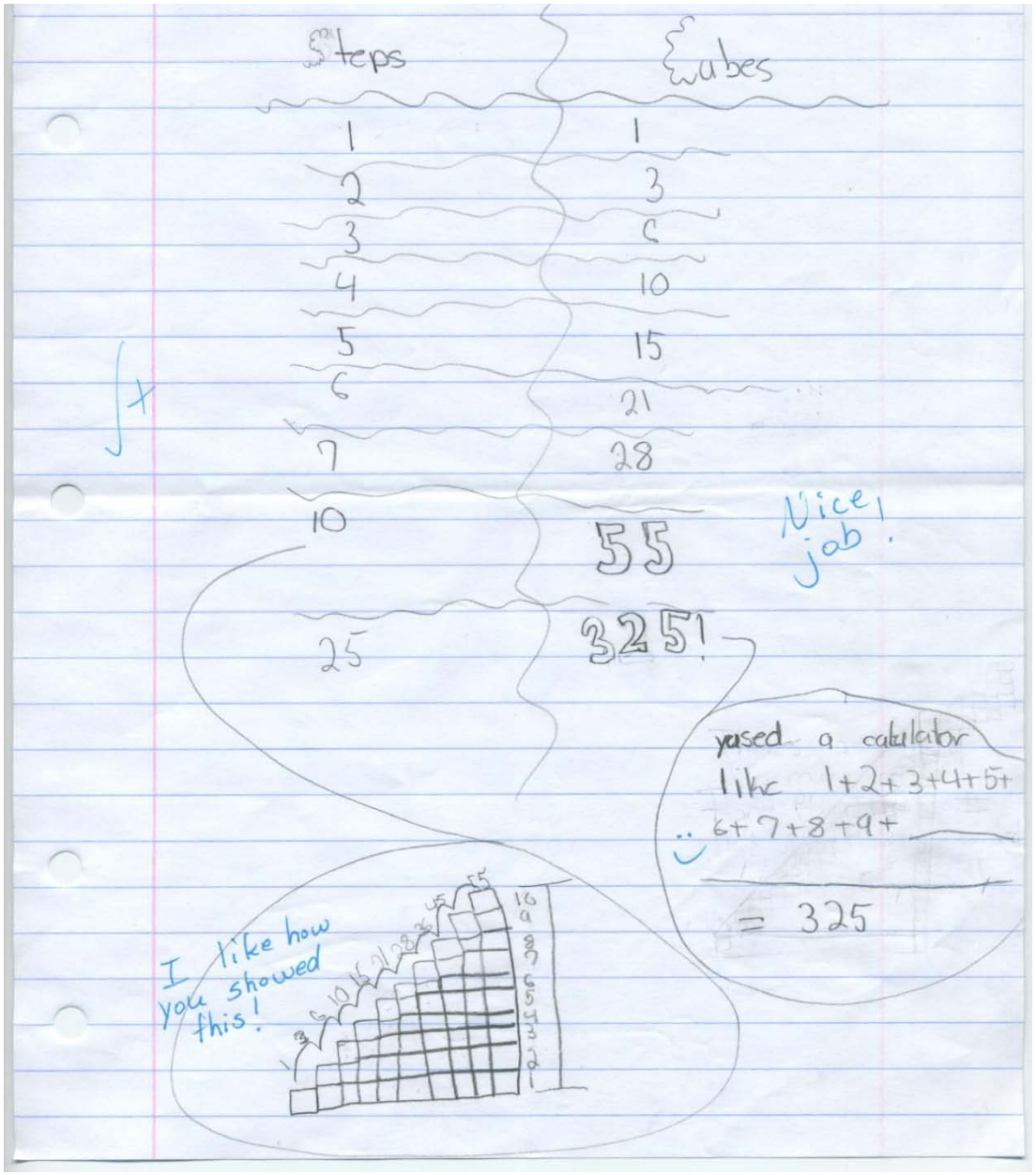


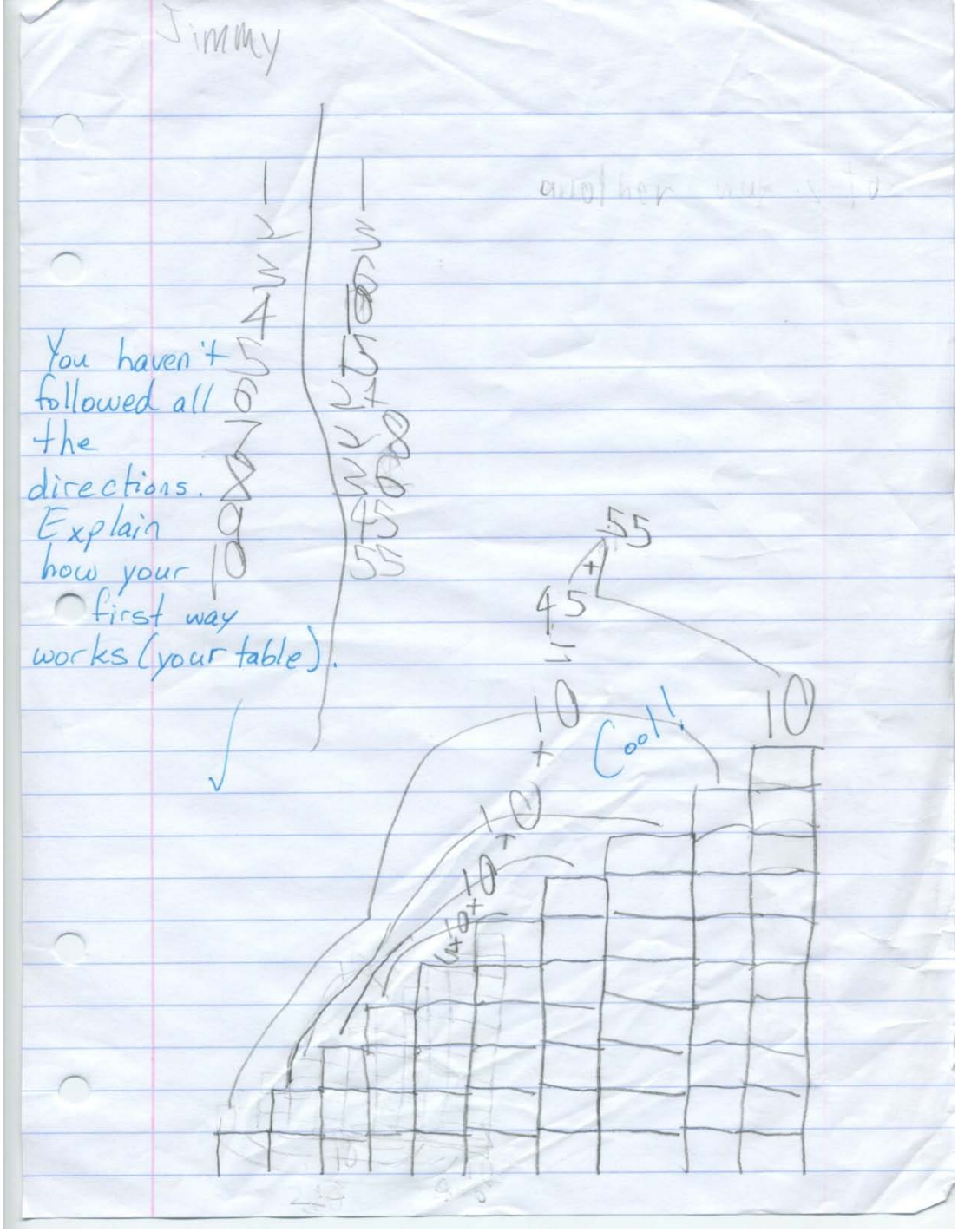
- Which portions of the lesson did you use? (Staircase problem, Growing I, Growing T, Growing U, Internet Applet, Reflection Questions)

- What materials/strategies did your students use?

- How did the materials/strategies help or hinder their problem solving?

Work from Stacy's class on staircase problem (4th grade)




Jimmy
You haven't followed all the directions. Explain how your first way works (your table).
Cool!

November 1st 2006

By Laur[illegible] Sonstevy

1.

Steps	Cubes
1	1
2	3
3	6
4	10
5	15
6	21
7	28
10	

2.

1+2+3+4+5+6+7+8+9+10=

5 10 10 10 10

50, 10+10+10+10=40

Cool!

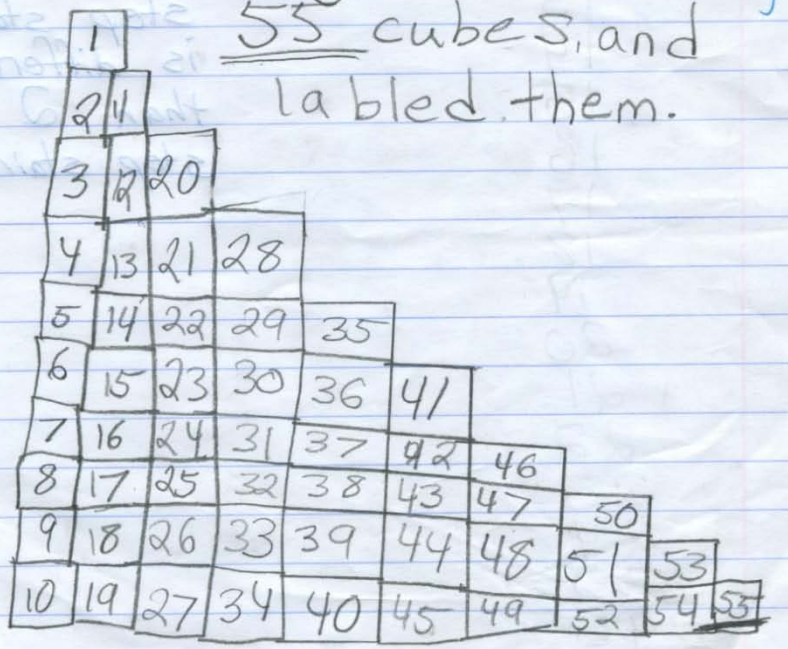
55

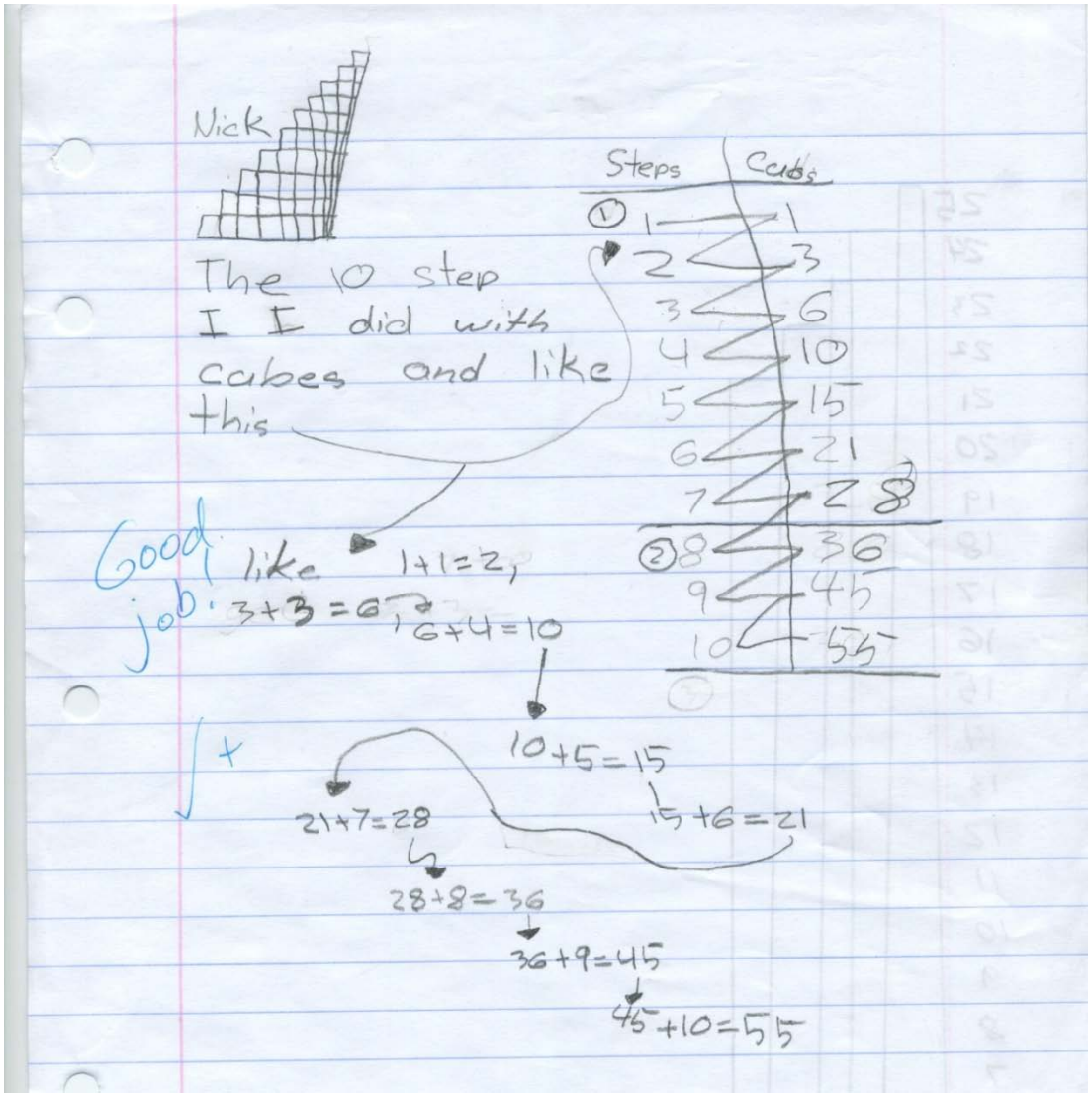
And 40+10+5=55

3.

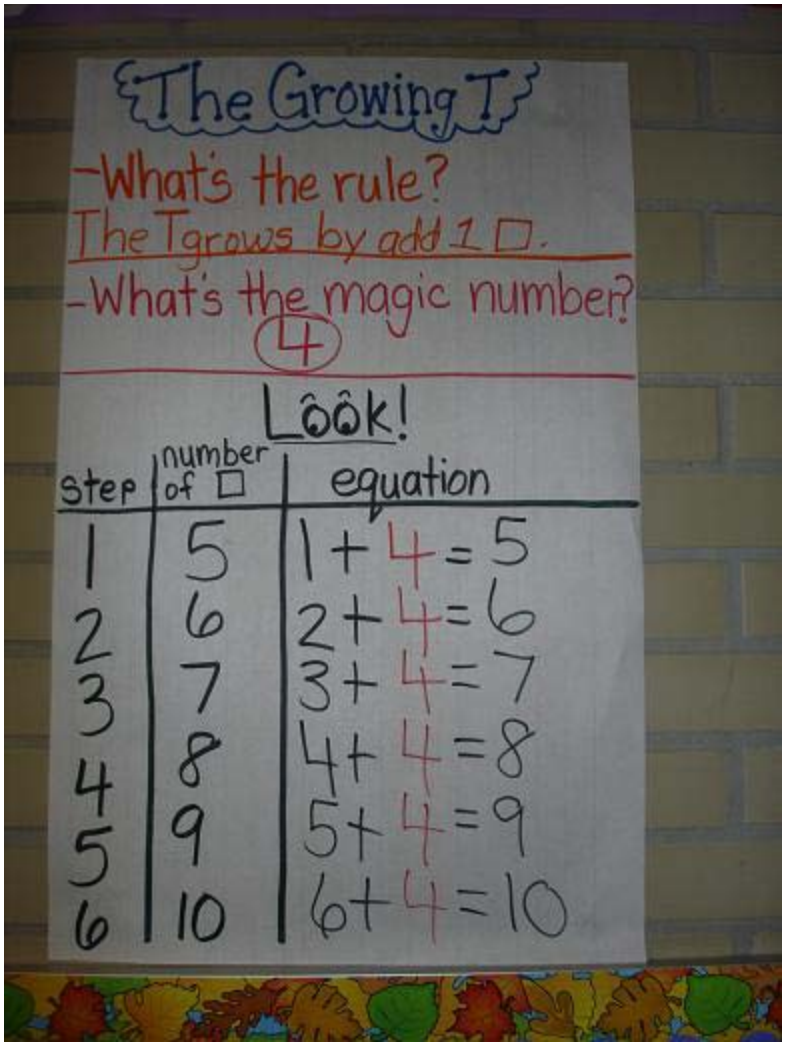
I just drew 55 cubes, and labled them.

Good job!




Nick
The 10 step I I did with cubes and like this
Steps
Cubes
1 1
2 3
3 6
4 10
5 15
6 21
7 28
8 36
9 45
10 55
Good job.
like 1+1=2, 3+3=6, 6+4=10
10+5=15
15+6=21
21+7=28
28+8=36
36+9=45
45+10=55

Pictures from Erika's class (1st grade)


The Growing T
-What's the rule?
The T grows by add 1 □.
-What's the magic number?
4
Look!
step | number of □ | equation
1 | 5 | 1+4=5
2 | 6 | 2+4=6
3 | 7 | 3+4=7
4 | 8 | 4+4=8
5 | 9 | 5+4=9
6 | 10 | 6+4=10

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-What's the rule?
The T grows by add 1 □.
-What's the magic number?
4
Look!
step | number of □ | equation
1 | 5 | 1+4=5
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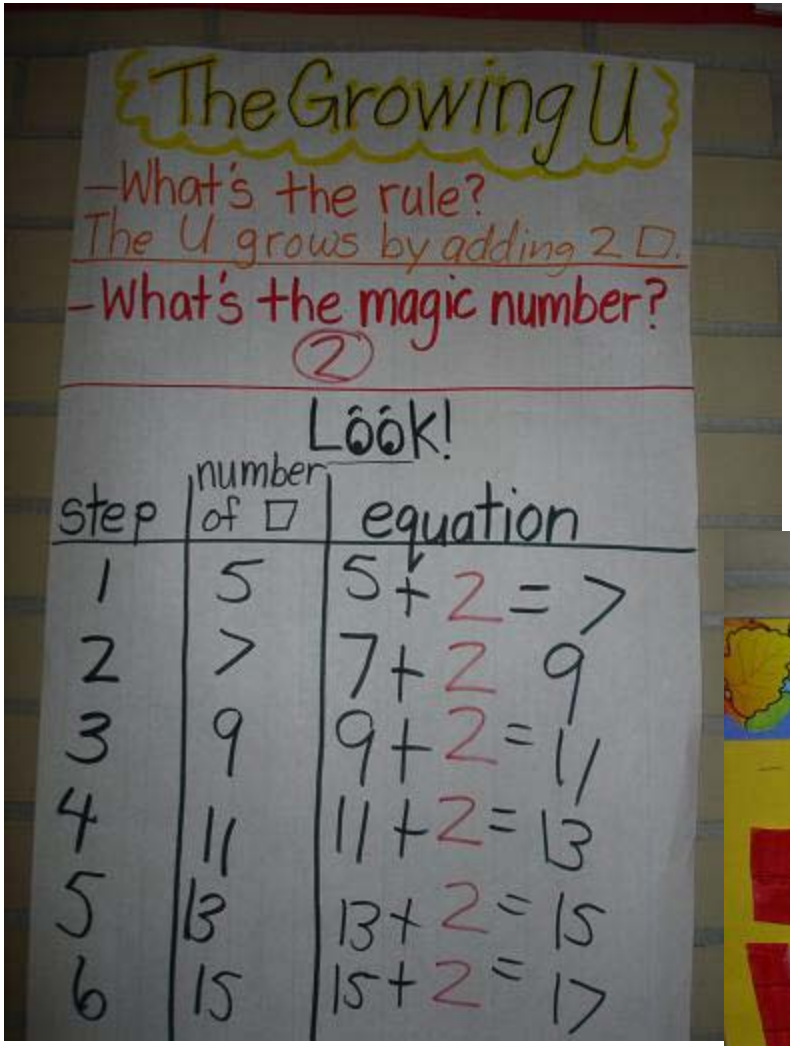
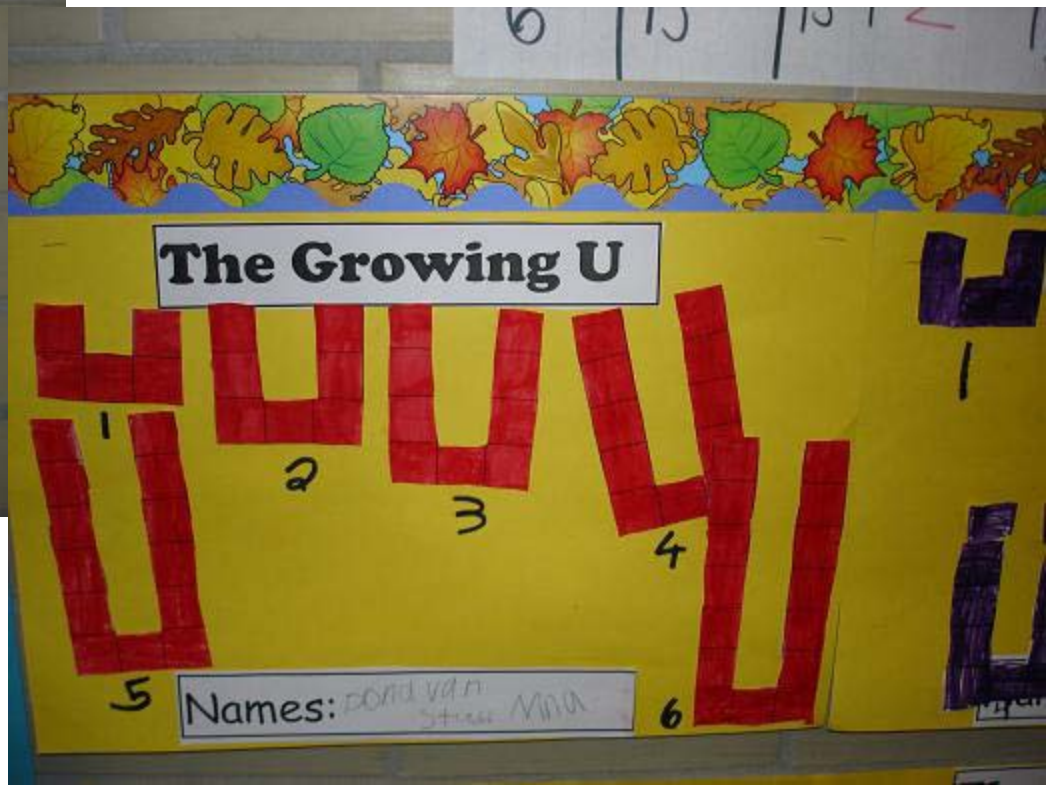
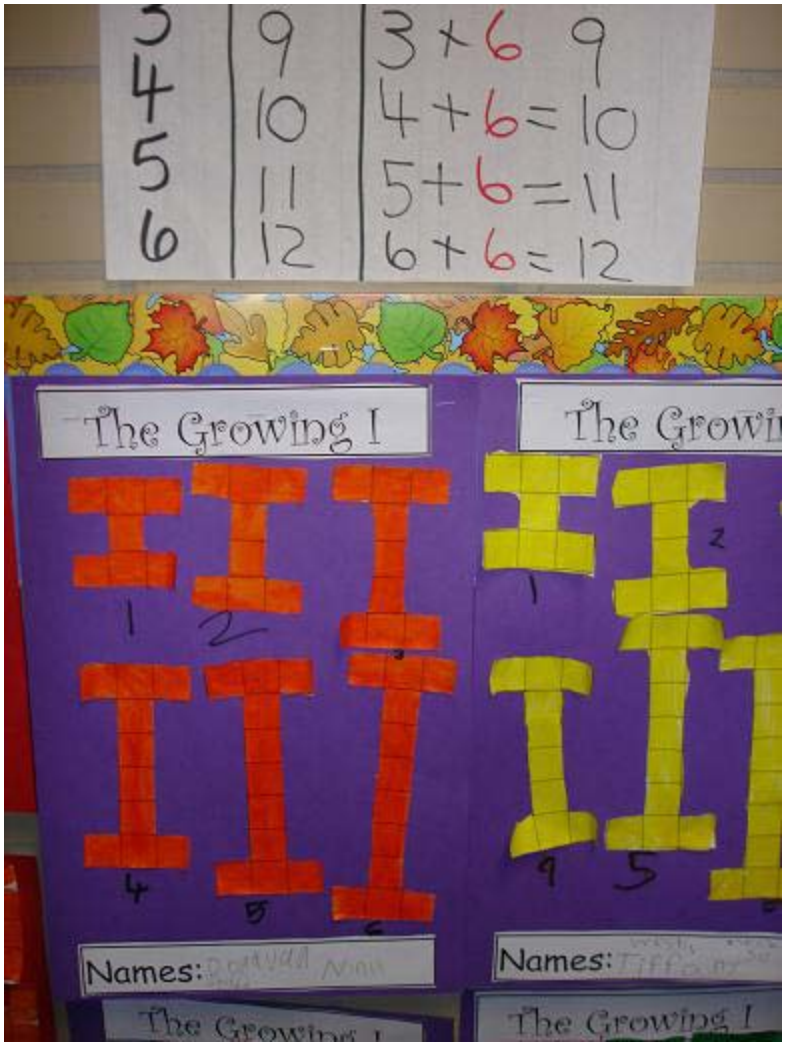
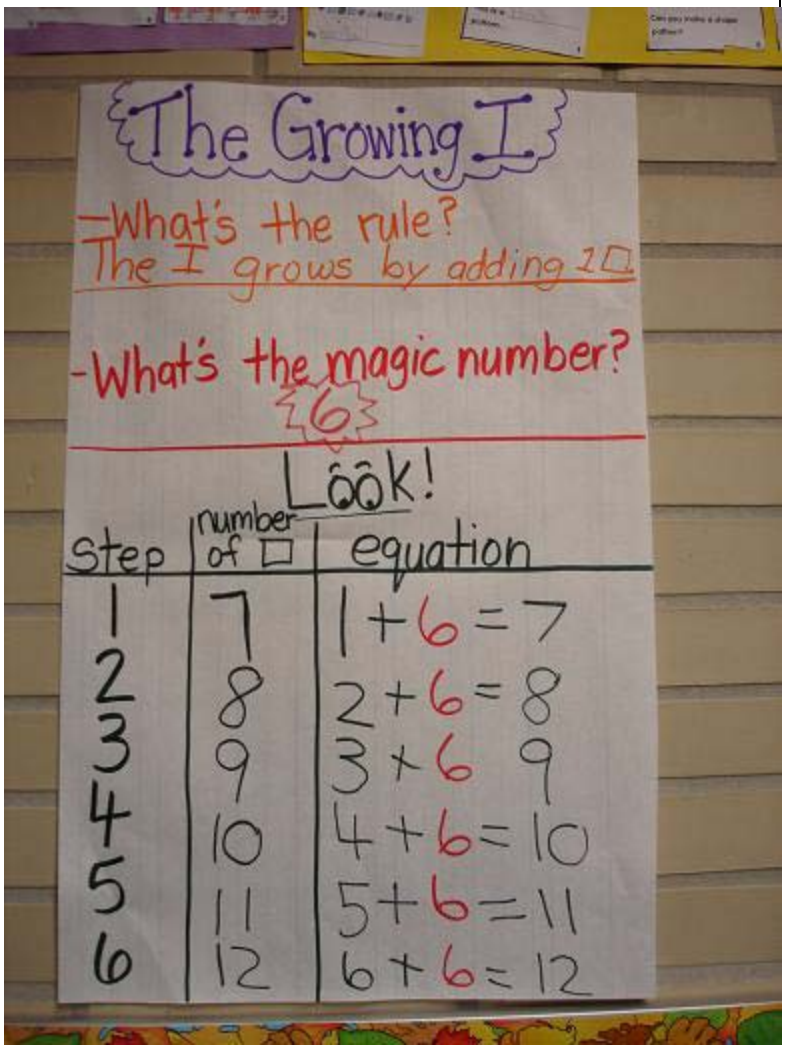
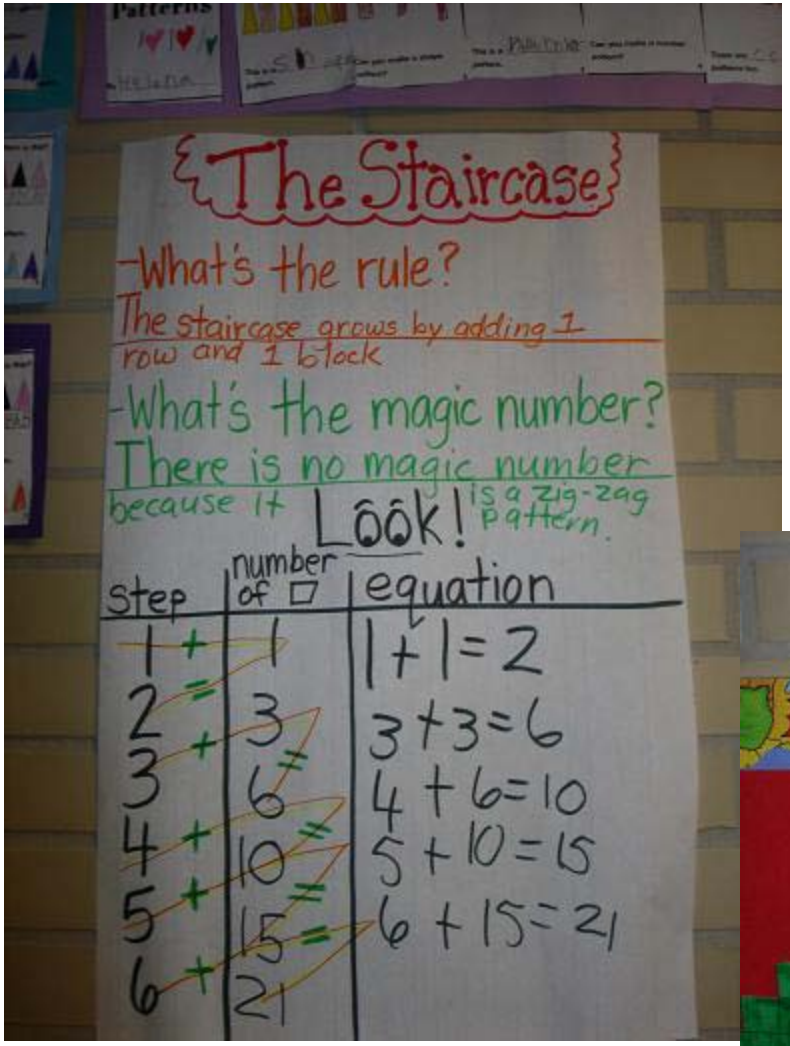
6 | 10 | 6+4=10
The Growing T
The Growing T
Names:


The Growing U
-What's the rule?
The U grows by adding 2 □.
-What's the magic number?
2
Look!
step
number of □
equation
1 5 5+2=7
2 7 7+2 9
3 9 9+2=11
4 11 11+2=13
5 13 13+2=15
6 15 15+2=17


The Growing U
1
2
3
4
5
6
Names:


3 9 3+6 9
4 10 4+6=10
5 11 5+6=11
6 12 6+6=12
The Growing I
The Growing I
Names:
Names:
The Growing I
The Growing I


The Growing I
-What's the rule?
The I grows by adding 1 □
-What's the magic number?
6
Look!
Step
number of □
equation
1 7 1+6=7
2 8 2+6=8
3 9 3+6 9
4 10 4+6=10
5 11 5+6=11
6 12 6+6=12


The Staircase
-What's the rule?
The staircase grows by adding 1 row and 1 block
-What's the magic number?
There is no magic number because it Look! is a zig-zag pattern.
step
number of □
equation
1 + 1 = 2
2 + 3 = 6
3 + 6 = 10
4 + 10 = 15
5 + 15 = 21
6 + 21

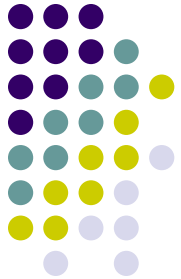
The Staircase
Names:
The Staircase

- What understandings did students demonstrate? What did they struggle with?

- What modifications did you make for struggling and/or advanced learners?

- What were the strengths of the lesson?
- What were the weaknesses?

- What would you change about the lesson?

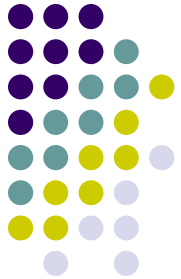


- What comments did observers share?

- Are students making progress with the goals of communicating clearly and respectfully? How did this lesson contribute?

- Are students making progress with the goals of becoming flexible and persistent problem solvers?

  How did this lesson contribute?



- Any questions or final thoughts?