Reasoning and Problem Solving – Count in 5s

National Curriculum Objective:

Mathematics Year 1: (1N4) **Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least**

Mathematics Year 1: (1N1b) **Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens**

Differentiation:

**Developing** Agreeing or disagreeing with statements (some with obvious errors), based on knowledge of multiples of 5 up to 25.

**Secure** Agreeing or disagreeing with statements (some with more subtle errors), based on knowledge of multiples of 5 up to 50.

**Mastery** Agreeing or disagreeing with statements (some with hard-to-spot errors), based on knowledge of multiples of 5 up to 100.

More Reasoning and Problem Solving Resources.

Did you like this resource? Don’t forget to review it on our website.
1. Wes is making this line pattern with counters.

Andrew says,
If you make 2 lines, you will use 11 counters.

Do you agree with Andrew? Explain your answer.

2. Kali is making this cross pattern with counters.

Ellen says,
If you make 3 crosses, you will use 14 counters.

Do you agree with Ellen? Explain your answer.

3. Grant is making this ‘T’ pattern with counters.

Louis says,
If you make 4 ‘T’ shapes, you will use 4 counters.

Do you agree with Louis? Explain your answer.

4. Rhian is making this column pattern with counters.

Ginny says,
If you make 5 columns, you will use 25 counters.

Do you agree with Ginny? Explain your answer.
5. Fran is making this zig-zag pattern with counters.

Beth says, If you make 6 zig-zags, you will use 36 counters.

Do you agree with Beth? Explain your answer.

6. Tom is making this corner pattern with counters.

Amal says, If you make 7 corners, you will use 35 counters.

Do you agree with Amal? Explain your answer.

7. Alfie is making this line pattern with counters.

Will says, If you make 9 lines, you will use 44 counters.

Do you agree with Will? Explain your answer.

8. Dev is making this moon-shaped pattern with counters.

Ted says, If you make 10 moon shapes, you will use 48 counters.

Do you agree with Ted? Explain your answer.
9. Sonya is making this cross pattern with counters.

Leanne says, If you make 12 crosses, you will use 65 counters.

Do you agree with Leanne? Explain your answer.

10. Calvin is making this hook pattern with counters.

Ray says, If you make 15 hooks, you will use 150 counters.

Do you agree with Ray? Explain your answer.

11. Aimee is making this ‘L’ pattern with counters.

Lindsey says, If you make 16 ‘L’ shapes, you will use 85 counters.

Do you agree with Lindsey? Explain your answer.

12. Jun is making this smile pattern with counters.

Fred says, If you make 19 smiles, you will use 95 counters.

Do you agree with Fred? Explain your answer.
Developing
1. No, Andrew is wrong. 11 does not end in a 5 or a 0. If Wes makes 2 lines he will use 10 counters.
2. No, Ellen is wrong. 14 does not end in a 5 or a 0. If Kali makes 3 crosses she will use 15 counters.
3. No, Louis is wrong. 4 does not end in a 5 or a 0. If Grant makes 4 ‘T’ shapes he will use 10 counters.
4. Yes, Ginny is right. 5 columns made of 5 counters each is 25 counters in total.

Secure
5. No, Beth is wrong. 36 does not end in a 5 or a 0. If Fran makes 6 zig-zag shapes she will use 30 counters.
6. Yes, Amal is right. 7 corner shapes made of 5 counters each is 35 counters in total.
7. No, Will is wrong. 44 does not end in a 5 or a 0. If Alfie makes 9 lines he will use 45 counters.
8. No, Ted is wrong. 48 does not end in a 5 or a 0. If Dev makes 10 moon shapes he will use 50 counters.

Mastery
9. No, Leanne is wrong. 65 is 13 lots of 5. If Sonya makes 12 crosses she will use 60 counters.
10. No, Ray is wrong. 150 is 30 lots of 5. If Calvin makes 15 hooks he will use 75 counters.
11. No, Lindsey is wrong. 85 is 17 lots of 5. If Aimee makes 16 ‘L’ shapes she will use 80 counters.
12. Yes, Fred is right. 19 smile shapes made of 5 counters each is 95 counters in total.