



# Planning K1

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**August, 2018**

# We don't have a lot of time, so..

- I thought I'd begin by taking you through the process I use to create a Grade 1 lesson or a K activity.
- Then we'll do a little bit of work together.
- And you'll set up questions for me I can deal with tomorrow.

# First steps

- I need to look at the expectations I am asked to cover but I have to decide what **ideas** I need to make sure I bring out.

# For example

- By the end of Grade 1, students will:
- solve a variety of problems involving the addition and subtraction of whole numbers to 20, using concrete materials and drawings;

# But what are the ideas?

- Adding is about putting together.
- The sum is usually (but not always) more than the two parts.
- Sometimes subtraction is about taking away, but sometimes it is about how much to add, and sometimes about how much more one amount is than another.

# But what are the ideas?

- When I subtract, the answer is often, but not always, less than what I started with.
- When I subtract, the answer can be more or less than what I subtracted.
- You can do any subtraction by adding.
- If I add and subtract the same amount, I end up with what I started with.

# But what are the ideas?

- You can add or subtract in parts.
- You can “juggle” to add.
- You can increase or decrease both amounts to subtract.
- There are tons of problems that match any addition or subtraction.

# You can see

- that these also apply at the K level.

# What you can see

- is that we can apply what we saw this morning to create open questions.
- And we will do that.
- Then I will also show you the notion of creating a whole lesson using backward design.

# Adding is about putting together

- You solve the problem using  $4 + 3$ .
- What might the problem have been?

# How big is the sum?

- You add two numbers less than 15.
- What do you know for sure about the answer?
- What are you not sure of?

# How big is the sum?

- You add two numbers and the answer is 8.
- What are you sure about those numbers?
- What are you not sure about?

# What can subtraction mean?

- Create a problem that  $7 - 3$  might solve.
- Draw a picture to show a subtraction that is not a take-away picture.

Do you see an addition or subtraction?



# What kind of answer?

- Fill in the blank:
- When I subtract a number from 10, usually\_\_\_\_\_.

# How could the two numbers be related?

- I subtract from 12. The answer is WAY more than what I subtracted. What might I have subtracted?

# Do you ever really have to subtract?

- How might you figure out  $20 - 14$ ?

# Do you ever really have to subtract?

- Lia subtracted by adding 1 and doing one other thing.  
What might she be subtracting?
- Why might she do it that way?

# Forward and back

- I had 8 stickers. I gave Sarah some of them.
- Then she gave me some stickers.
- Now I have 8.
- How many did I give? Did I get?

# Add or subtract in parts

- When, why, might you add 6 by adding 2 and then another 4?
- When, why, might you subtract 6 by subtracting 5 and then 1 more?

# Juggle to add

- Charlotte had some cubes.
- Rebecca had more cubes.
- Charlotte said it would be easier to figure out their total if Rebecca gave her 3 of her cubes.
- How many do you think each girl might have had?

# Making a subtraction easier

- Kevin had some cubes.
- Jaden had more than Kevin.
- Jaden said to figure out how much more he had than Kevin, he could subtract 10 from 15.
- But Kevin didn't have 10.
- So how many might each boy have had?

And here is a lesson

# Or I could build an activity

- Choose 3 different coloured Cuisenaire rods.
- One has to be short.
- Two together have to be as long as the long one.
- What could your addition be?

# Now you plan

- Plan an addition or subtraction activity/lesson that focuses on ideas and is differentiated by being open.

# For tomorrow

- What do you want me to be ready to work on with you?