



**Smiths Wood Community Primary School**  
**Maths Planning**

Group / Class	Number of children	Day/Date	SEN	Time
Y5	11	1st April	See class profile for details	9.15-10.15
<b>Learning Intentions:</b>  <u><b>LO: recognise negative numbers in context</b></u>  <u><b>LO: To put numbers in order from smallest to greatest</b></u>			<b>Success Criteria:</b>  Children will have an understanding of reading temperature in a real context Children will be able to order numbers -10 to +20 and calculate difference within that range	
<b>Assessment:</b> <ul style="list-style-type: none"> <li>Who is able to order numbers in sequence including negative numbers (<i>observation during activities and feedback sheets from TAs</i>)</li> <li>Who is able to calculate a difference in temperature (<i>observations during activity time, and maths books</i>)</li> </ul> <p><i>I will make a note of the children who are able to do this. Assessment is carried out at the end of each half term.</i></p> <p><b>Differentiation:</b> The children have already been split into ability groups. This group are the lowest achieving children, working within Levels 2B – 3C</p> <p>* [red box] – TA support during whole lesson to keep on task            * [red box] – Support and reassurance from TA during session. Opportunities to answer questions at his level so he feels valued. Opportunity to move in lesson (carpet activity). Blue tack to fiddle with. Easy grip pen            * [red box] – TA Support on table. Encouragement and lots of praise to keep up self esteem.            * [red box] – Lots of positive feedback/praise. Catch him being good!            * [red box] – Lots of absence so gaps in learning. Needs lots of encouragement to keep focused and on task, as not very motivated</p> <p>Number squares/number lines available if and when necessary</p> <p>See Class profile for details</p>				
<b>More able children:</b>  Wider number range. Calculate differences in temperature. Move on to decimal numbers if appropriate				
<b>5 minutes</b> <b>Lesson opener:</b> Children come in and complete red challenge from Monday as well as writing date & L.O. Children who have finished complete the number pattern challenge from the board.				
<b>5 minutes - 9.30</b> <b>Mental/Oral starter:</b>  <u><b>LO: Count on or back in multiples of 2,3,4</b></u> Play “Silent Count”  Play ‘Silent counting’. Say start number. Children count on silently in 2s/3s each time you clap. They write the number on last clap. They reveal numbers. Discuss.  Ext: Begin with a negative number and count on in 2s e.g. -10  <i>Support for LM, RM, TR, CW – provide with a multiple ladder TA support on table</i>				
Introduction	10 minutes – 9.40  <b>Stimulus:</b> Hot coloured water – what temperature is it? Estimate around room – read thermometer. Add ice. Predict what will happen to the temperature. How far will it drop? Write how far it will drop on a square of paper and give in to an adult.  At points during the lesson sound an alarm, a child reads the thermometer. What does it say now? Use interactive thermometer to demonstrate.			

Interactive thermometer. What is the temperature? If it started snowing and the temperature dropped by 10 degrees. What would the temperature now? Draw on to your thermometer. Explain how you found the answer.

ZB to assist the least able. [redacted] – use large number line and count back/forwards  
 Candy to assist [redacted]  
 LO'R to assist [redacted] after setting up laptops

Activities

9.40 – 10.00

**Activity 1 – Laverne to support (I.C.T)**  
**Ordering numbers including negative numbers (BBC Bitesize)**



If time or if an extension activity is appropriate:  
 Pairs of children

Children place five blank cards in a row to represent the positions of five numbers in order from smallest to largest. They shuffle the integer cards and place them face down in a pile. Player A turns over one card and places it on top of one of the blank cards. The aim is to try to get all five numbers in order. Once a card has been placed, it cannot be moved! Player A takes another card and places it. Continue until five numbers are placed in the row. If they are in the correct order, score 5 points.

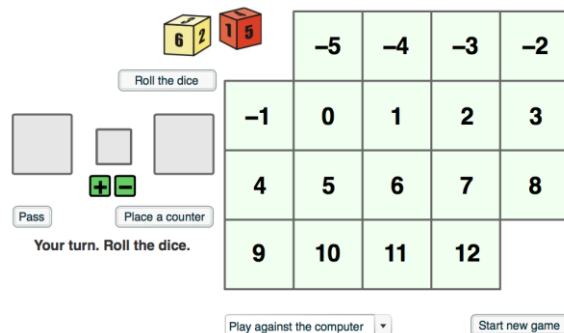
Remove the five cards, shuffle with the rest of the pack, and then Player B has a turn.

Ext: Write a number on a post-it that would come in between 2 of the numbers (teacher points out which ones)

Support – Children share one computer and you work through with them until they are confident working independently

**Activity 2 – Mia to support**

Creating positive/negative numbers



Ext/Support: Use blank game for support/extension – modify numbers to extend/support children as appropriate

**Activity 3 – Zoe to support**

Positive/negative numbers

Use large number track & giant counters. Questioning:

Predict what number you will land on – then add the two numbers together and move the counter. One child to be the 'Calculator King'. Check answers or each of the partners before they move their counter. Children swap roles every time a game is finished.

**The Tug of War Game 2**

**A game for two players**

One of you is Positive and goes from left to right,  
the other player is Negative and goes from right to left.  
Take turns to throw two dice. Add the scores to see how far you go.  
If the counter gets to -13, Negative wins.  
If the counter gets to +13, Positive wins.

-13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13

Play again

Ext: Through questioning:

How many more do you need to get to the end?

What number do you think you will land on?

If appropriate look at difference between. What is the difference between your number and your partner's number?

Support: Use only one dice if tricky, then count along/back the number line to find where to move the counter.

**Activity 4 – Candy to support**



Countries (countries laid out on table in a circle). Spin the spinner twice to find the countries you are using. Put temperatures onto thermometers. Which country is the warmest? Find the difference in temperatures by counting on or back. Record in a grid:

Discuss how the difference in temperature is bigger than the highest temperature. You have to count back all the way to zero (45) and then 2 more.

Support: Use countries with green spots only with number lines to support

Extension: Use cards with orange spots (larger number range)

Plenary

10.05-10.15

Revisit cooling water. What happened to the temperature. Would it ever get to a negative temperature? Who had the closest prediction? Large changes in temperature don't happen immediately.

What kind of things may be at a negative temperature?

Higher/Lower

Guess whether the next number will be higher/lower than the first (negative numbers)

Circles to be supported by Candy

Rectangles to be supported by Laverne

Pentagons to work independently

challenge – How far has the temperature dropped in 1 hour?

Assess who has a good grasp of number value. Eg if the range is -10-10 and they turn over -10

	they should be able to predict that the next number will be higher!
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	<a href="http://www.topmarks.co.uk/Flash.aspx?f=HigherAndLower">http://www.topmarks.co.uk/Flash.aspx?f=HigherAndLower</a>
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	Celebrate lesson's achievements.
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*Children will be given verbal praise and golden points throughout the session to give them encouragement and to increase their confidence. 'Treats' will be given out as the children achieve 5 ticks. At this point they will begin to earn ticks towards their next reward.*