

Numicon Central Professional Development @ ISD

David Lyttle
numicon@isdedu.de

Making Numbers Real! *An introduction to Numicon in an elementary school setting*

Date: Thursday, March 8th 2018
Time: 09:00 - 16:00
Location: Elementary School Conference Room 1.01
International School of Düsseldorf, Niederrheinstr, 323, 40489, Germany

Workshop Schedule and Outline

- 09:00 - 09:45** **Session 1: Introduction - What is numicon?**
Reviewing the Core Materials, Support Materials, Teacher Handbooks
Reviewing the school's involvement with Numicon (Intervention, Classroom work, Enrichment)
Activity: Fill the Board - Quickest, All Shapes, Large & Small, Odd and Even, Patterns, Pictures
Activity: Making a Staircase
Video: What is Numicon
- 09:45 - 10:30** **Session 2: Zooming Out - The theory and pedagogy of elementary maths**
The Goal of ALL Math Lessons:
Generalisation, Communication, Visualisation, Metacognition, & Number Sense
The Seminal Works from my 5 Wise Guys - Piaget, Dienes, Bruner, Skemp, Vygotsky
Theory Practically Applied: The underlying goal of Numicon and the PYP Aligned
*Linking Numicon to the PYP with the Curriculum Mapping Project (Intro & **Reading Article**)*
- 10:30 - 10:45** **Morning Tea Break**
Provided by ISD
- 10:45 - 11:45** **Session 3: How Numicon Works: Part 1 (Lower Elementary Classrooms)**
Numicon with Number Bonds, Equivalency, and Place Value
Video: Odd & Even / Large Numicon Shapes (Prep)
Activity: Balance Scales How many ways to make ...
Video: Numicon with Balance Scales (Prep)
Numicon with Addition and Subtraction
Activity: Family of Facts and Looking for a Difference

Contact Details: David Lyttle

Work No: +49 (0)211 9406 803
Email: numicon@isdedu.de

Twitter: @numiconisd

Mobile: +49 (0)152 0204 7240
Website: www.in.isdedu.de

11:45 - 12:15

Session 4: Linking Numicon and the CPA Approach

A Proposed Structure of a Math Lesson

Explore, Share, Understand, Practice, Reflect

CPA Spiralling How it works

Video: *Demo of Concrete, Pictorial, Abstract*

Activity: *Bar Modelling with rounding and compensation for Addition and Subtraction*

Abstract goal is Mastery. Mastery Definition and what this means in practice.

12:15 - 13:15

Lunch Break

Provided by ISD

13:15 - 14:15

Session 5: How Numicon Works: Part 2 (Upper Elementary Classrooms)

Numicon with Multiplication and Division

Associative, Distributive, Inverse, and Commutative Properties

Activity-Lesson: *Associated Facts of the Times Tables, Learning multiplication through Number Bonds and Patterns.*

Activity: *Box Method Multiplication for Both Whole Numbers*

Video: *Box Method for showing associative and distributive properties and solutions (Gr4)*

Activity: *Division as Grouping of Multiplication*

Video: *Solving Division through grouping (Gr5)*

14:15 - 14:30

Session 5: Success with Numicon at ISD

Statistics from the first year(s) of using Numicon as Intervention at ISD

Limitations of Statistics: Purpose of Intervention

14:30 - 14:45

Afternoon Tea Break

Provided by ISD

14:45 - 15:45

Session 6: How Numicon Works: Part 3 (Enrichment & Fractions)

Understanding and applying Part Whole

Activity: *Creating your own Fractional Bar Chart with Cuisenaire Rods*

Activity: *Division of Fractions using Cuisenaire Rods*

Model Lesson: *Numicon Investigations Book (Learning Extension / Enrichment)*

'Magic Squares (& The Pattern of 3s)

15:45 - 16:00

Session 8: Implementing Numicon & Reviewing the Day

How will numicon be used in your school?

Final Questions

Feedback Forms

Contact Details: David Lyttle

Work No: +49 (0)211 9406 803

Email: numicon@isdedu.de

Twitter: @numiconisd

Mobile: +49 (0)152 0204 7240

Website: www.in.isdedu.de