



# THE NUMERACY WORKSHOP - INSTRUCTIONAL PRACTICES AND NON NEGOTIABLES


Whole Group Focus	What is happening?	<a href="#">High Impact Teaching Strategies</a>
Explicit Teaching 15-20 minutes	<ul style="list-style-type: none"> <li>• Learning Intention and Success Criteria are introduced and explained (Opening)</li> <li>• Mini Lesson - Explicit Teaching</li> <li>• A problem is modelled with the learning intention as its focus</li> <li>• The teacher scaffolds the learning through modelled, shared problem solving.</li> </ul>	<ol style="list-style-type: none"> <li>1. Setting Goals</li> <li>2. Structuring lessons</li> <li>3. Explicit Teaching</li> <li>4. Worked examples</li> <li>7. Questioning</li> </ol>

Worktime	What is happening?	HITS
Small Group / Mathematics Conference and Independent Problem Solving 10-40 minutes	<ul style="list-style-type: none"> <li>• <b>Numeracy activities</b> during this time are <b>purposeful (PNAs)</b> and related to the learning goal and/or student's individual goal.</li> <li>• Students complete rich mathematical learning tasks / problem solving tasks guided by the group / individual learning goal</li> <li>• The teacher works with a small group or individual students with specific learning intentions.</li> <li>• Teacher and students practice mathematics processes together through interactive activities and discussion</li> <li>• Students practice math strategies independently</li> <li>• Teacher assesses learning and reteaches as necessary</li> <li>• Pedagogical practices could include modelled, shared, independent or guided mathematics</li> <li>• Students can be working on individual number goals</li> </ul>	<ol style="list-style-type: none"> <li>1. Setting Goals</li> <li>2. Structuring Lessons</li> <li>3. Explicit Teaching</li> <li>4. Worked Examples</li> <li>5. Collaborative Learning</li> <li>6. Multiple Exposures</li> <li>7. Questioning (small groups)</li> <li>8. Feedback (conferences)</li> <li>9. Metacognitive strategies</li> <li>10. Differentiated Teaching</li> </ol>

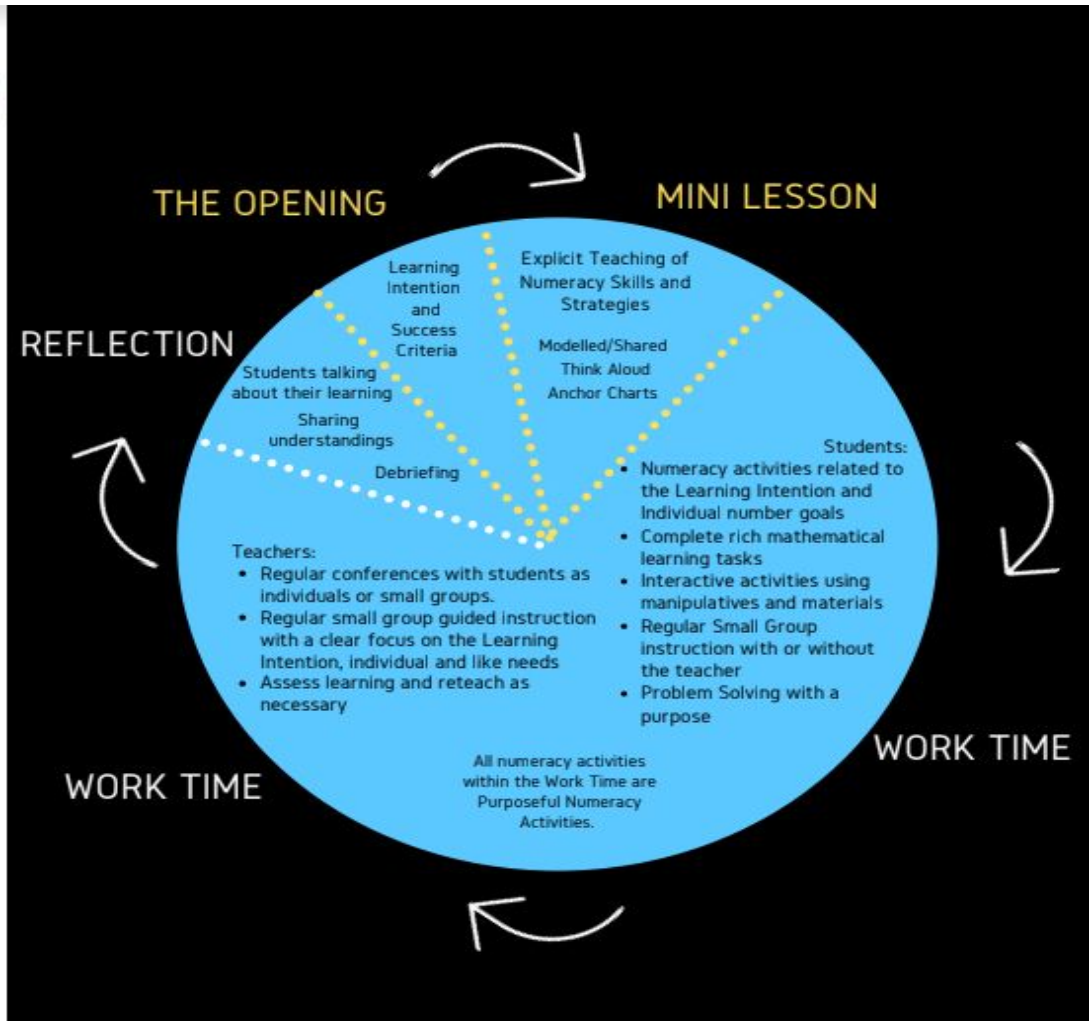
Whole Group	What is happening?	HITS
Whole Group Reflection Lesson Closure Share time - Speaking and Listening / Reasoning 5 -15 minutes	<ul style="list-style-type: none"> <li>• Students are helped to bring things together in their own minds, to make sense out of what has just been taught ..... Closure involves reviewing and clarifying the key points of the lesson (Hattie, 2009)</li> <li>• Provides an opportunity for feedback related to the success criteria (teacher, peer and self assessment)</li> </ul>	<ol style="list-style-type: none"> <li>1. Setting Goals (revisit and students explain their learning)</li> <li>2. Structured Lesson</li> <li>6. Multiple Exposures</li> <li>7. Questioning</li> <li>8. Feedback</li> <li>9. Metacognition Strategies</li> </ol>

The model assists teachers in achieving the aims of Victorian Curriculum Mathematics - use this as a guide to inform your teaching practices.



Focus	 <b>Kismet Park Primary School</b> Building the Foundations for Success and Happiness
Warm up (5-10 mins)	
Learning Intention:	
Success Criteria:	
Vocabulary	
Resources	
<b>Mini Lesson</b> (10-15 min) Explicit Teaching Modelled Shared	
<b>WORKSHOP</b> Student Investigation (20-40 mins)	

## KPPS NUMERACY INSTRUCTIONAL MODEL



**IN THE CLASSROOM**

- ❖ Minimum of 5 X 1 hour long math sessions every week
- ❖ Encourage an extended math session if permitted (90 minutes)
  - ❖ Manipulatives are to be labelled and easily accessible for all (teachers and students)
- ❖ Manipulatives available for use in every lesson in math and used by both the teacher and the students
  - ❖ Anchor charts for current math concepts displayed in the classroom on the Numeracy Wall
  - ❖ Other Anchor charts can be added to the class journal or made into a book of charts
- ❖ Use of technical math language in math sessions (refer to planning documents on google docs)
  - ❖ Class Journal in the Prep-2 classes
- ❖ Whole class Journal for term 1 transitioning to individual Journals in terms 2-4 for the 3-6 classrooms
- ❖ Numeracy Wall that uses accurate math information and reflects the current concept being learnt
  - ❖ Information relating to other areas of math can be added to class journal
  - ❖ Numeracy Wall displays work that is class, teacher and student generated

**PLANNING**

- ❖ Elements of the lesson structure; Warm-up, Mini Lesson, Workshop Time, Reflection
  - ❖ Vocabulary listed for each unit of work to support the teaching and learning
    - ❖ Connections/Links made to other areas of math
- ❖ Oral counting and identifying number patterns occur regularly across each term (This should include whole numbers, fractions, decimal numbers and counting using money amounts)
- ❖ Learning intention recorded on the planner, teacher work program and displayed on the Numeracy Wall for the 'unit' of lessons
- ❖ Success Criteria recorded on the planner, teacher work program and displayed on the Numeracy Wall for each 'unit' of lessons
  - ❖ L.I. & S.C. are directly linked to Victorian Curriculum
  - ❖ Common assessment tasks planned for and implemented for each unit of work
    - ❖ Open ended task/investigation to be included in each unit of work
  - ❖ Problem solving strategies to be explicitly taught- Work backwards, Make a table,.....etc
- ❖ Mathematical organisers such as, Venn Diagrams-two and three circles, number lines, arrays, tables, graphs....etc
  - ❖ Benchmarking-(EG, 10cm is my benchmark-Compare lengths to this)

**THE CLASSROOM ENVIRONMENT**

- ❖ Accessible and labelled manipulatives, using text and visual image
- ❖ Math Tool boxes (containing tools to support math learning such as calculators, tape measures, dice, cards, rulers, counters.....)
  - ❖ Clear work spaces at table along with available space on the floor for students to work
- ❖ Teacher questioning promotes student willingness to share thoughts and ideas, even when incorrect or highlight misconceptions
  - ❖ (Teachers to use this as an opportunity for a teaching moment for a small group or the whole class)
- ❖ Layout of the classroom which allows for the movement of the teacher to engage with all the students in the classroom
  - ❖ A variety of number charts in the classroom (10 x 10 grid, 5 x 5 grid, 13 x 13 grid, 0-99, 1-100, 0-50,.....etc)
  - ❖ Numeracy Wall that uses accurate math information and reflects the current concept being learnt  
(Information relating to other areas of math can be added to class journal)
- ❖ Numeracy Wall displays work that is class, teacher and student generated and is used during the explicit teaching and the student task time

**INCIDENTAL TEACHING**

- ❖ Time-elapsd time (What time is it now? If you have 20 mins to complete the task, what time will it be?)
  - ❖ Time - Days of the week, Calendars, timetables
  - ❖ Estimation; How do you know that the answer will be around.....?
  - ❖ I need two teams for this game. (Students make the teams for the game)
    - ❖ Are the teams fair? (Approx the same number of students in each)
- ❖ Classroom Management. When students need to pack up or come to the floor, use counting patterns such as counting backwards, forwards, using fractions, using decimal numbers.....
  - ❖ If you seen an opportunity to teach maths concepts, grab it!