MINISTRY OF EDUCATION
Te Tāhuhu o te Mātauranga

Individual Knowledge Assessment of Number (IKAN)

IKAN is an assessment tool to be used to assess a student's knowledge stage on the Number Framework. It has been developed as an alternative to using the knowledge section of the diagnostic interview (NumPA). The knowledge stages describe key items of knowledge which students need to know and be able to quickly recall without needing to strategize. This assessment is suitable for students in years 3 to 8 who are at the Advanced Counting stage, numeracy stage 4, or higher. Teachers may use this assessment with all of their students or they may choose to use this assessment for those students whom they require more knowledge information about.

The assessment has been divided into five parts. Each part assesses the four knowledge domains. - Number Sequence and Order, Fractions, Place Value, and Basic Facts.

Part One:	Advanced Counting	AC (Stage 4)
Part Two:	Early Additive	EA (Stage 5)
Part Three:	Advanced Additive	AA (Stage 6)
Part Four:	Advanced Multiplicative	AM (Stage 7)
Part Five:	Advanced Proportional	AP (Stage 8)

It is recommended that different versions of IKAN are used within a school year to ensure that students do not become familiar with the questions. Each student will need a copy of the answer sheet attached to this document. The answer sheet has been broken into the four knowledge domains.

The on-line IKAN automatically times the exposure students have to each item. The time allocated for tasks has been altered depending upon the demands of each domain. Once the power point show is started the **teacher needs to read each item** as it appears including reading the numbers.
Note: Students at stages 7 and 8 may start the IKAN at part three.

Students can opt out of the assessment when they reach a point where they feel that they are unable to answer any more questions. It would be beneficial that students continue through the parts as they may have strength in a knowledge domain which will be evident when marking the assessment horizontally (see marking assessment section below). It is recommended that students have an independent activity available to continue with if they stop the assessment.

Marking the IKAN
The teacher marks all the questions at the end of the power point. The IKAN can be marked horizontally by individual domains and vertically for a knowledge stage.

Horizontally: Record the last stage where the student got all the questions correct. Each of the knowledge domains requires an identified stage. Strengths and weaknesses within these domains can easily be identified for teaching and learning purposes (refer to the student answer sheet example below).

Vertically: Record the total number of questions that the student answered correctly at the bottom of the column. Highlight the last stage where the student got all the questions correct (refer to the student answer sheet example below). This information may be used for collation of school wide knowledge data. It is not recommended that vertical analysis is used for classroom practice.

NB: The IKAN does not assess all the knowledge for each stage; it is a representative example only.
All aspects of knowledge need to be covered (refer to the Number Framework).
The knowledge domains align with the information obtained from using NumPA (Numeracy Project Assessment).See www.nzmaths.co.nz for more information about the NumPA assessment interview.

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Student Answer Sheet – IKAN **IKAN 1** **IKAN 2** **IKAN 3** **IKAN 4** (Circle the form used)

Student Name: _____ Year Level: 4 Date: _____

	Stage 4 Advanced Counting	Stage 5 Early Additive	Stage 6 Advanced Additive	Stage 7 Advanced Multiplicative	Stage 8 Advanced Proportional	
Domain	Part One	Part Two	Part Three	Part Four	Part Five	Stage
Number Sequence and Order	1. 50 ✓ 2. 29 ✓	1. 600 ✓ 2. 999 ✓	1. 440 000 ✓ 2. 801 099	1. 2.		5 EA
Fractions	3. 1/2 ✓ 4. 1/5 ✓	3. 5 1/4 4. 1/4 2/4 3/4 ✓	3. 1/3 1/6 1/7 4. 4 1/5	3. 4.	1. 2.	4 AC
Place Value	5. 8 ✓ 6. 90 ✓	5. 3 6. 490 ✓	5. 6 6. 8	5. 6.	3. 4.	4 AC
Basic Facts	7. 14 ✓ 8. 9 ✓	7. 16 ✓ 8. 35 ✓	7. 7 ✓ 8. 42 ✓	7. 8.	5. 6 7. 8.	6 AA.
Total	8	6	3			