

Number Sense & Quantity Fluency Probes

SECTION 2 · SEVEN TIMED FORMS

NUMBER SENSE FLUENCY PROBES

SUBITIZING

Subitizing – Form A

Form A: 40 dot clusters (1–10), mixed order, timed · scored by the adult, not the student.

TIME LIMIT (SET BY YOUR TEAM)

STUDENT

DATE

FORM
Subitizing A
40 clusters

timed ·

Flash each cluster for about one second. Say: “How many dots? Say the number and move on.” Mark each response correct or an error as the student goes; stop exactly at the time limit.

TEACHER: MARK EACH RESPONSE CORRECT OR AN ERROR AS YOU GO, THEN TOTAL

TIME USED
____ min
____ sec

ITEMS REACHED
____ / 40

CORRECTLY IDENTIFIED

ERRORS

Write the time, items reached, correct count and errors on the data log (page 18) the same day; the log turns them into RPM (responses correct per minute = correct ÷ minutes elapsed). An item the student skips or refuses still counts toward “items reached” if the time ran out before it, but not if the student was still moving forward when time was called.

NUMBER SENSE FLUENCY PROBES

Subitizing – Goal and Directions

ss for one skill. Timed; score is correct responses per minute (RPM) and accuracy, together.

ities (subitizing), names numerals, compares quantities (which is more?), and or a fixed, team-set time limit. Seven different forms measure these number-sense y. The score is speed and accuracy together — responses correct per minute (RPM) —

EDIT EVERY BRACKET TO FIT THE STUDENT

one-minute] timed number sense probe (subitizing clusters, number naming, quantity estimation), [Student] will correctly identify or estimate [20] quantities percent accuracy on [3] consecutive weekly probes, as measured by teacher-ense probes (all seven forms, pages 10–16).

SUPPORT)

ON ____ OF ____ CONSECUTIVE PROBES

Y COMPARE / ROBE)

AS MEASURED BY [ALL SEVEN TIMED NUMBER SENSE PROBE FORMS, PAGES 10–16]

IN THREE DAYS HE MIDDLE

MEDIAN RPM (THE BASELINE)

BENCHMARK	TARGET DATE	TARGET RPM / ACCURACY	ACTUAL	MET?
1				
2				
3				

ten on the goal box and every form. Read the form-specific direction aloud. ror as the student goes; stop exactly at the time limit, even mid-cluster or each.

elapsed (convert seconds ÷ 60). Accuracy = correct ÷ items reached.

clear together — an RPM reached by rushing past wrong answers is not

CEPTED WED)

WHAT THE ERRORS SAY TO RETEACH (CARRY OVER FROM THE LOG)

Page 8 of 25

+ BRIGHT PATH SPED

+ BRIGHT PATH SPED

25 PAGES

SEVEN TIMED FORMS

SPEED + ACCURACY TOGETHER

FILLABLE PDF

✦ BRIGHT PATH SPED

What Is Inside, and Where

25 pages, one skill, start to finish: no norm-referenced score, no fixed automaticity cutoff.

Before you begin

PAGE 4



**Start Here —
Three Steps**
START HERE

4

01 Set Up

PAGES 6–8



**Binder Cover and
Divider Tabs**
SETUP

6



**How This Pack
Works**
REFERENCE

7



**Number Sense —
Goal and
Directions**
GOAL

8

02 Seven Timed Forms

PAGES 10–16



**Subitizing — Form
A**
SUBITIZING

10



**Subitizing — Form
B**
SUBITIZING

11



**Subitizing — Form
C**
SUBITIZING

12



**Subitizing — Form
D**
SUBITIZING

13



**Number Naming
Speed — Form**
NUMBER NAMING

14



**Magnitude
Comparison Speed
— Form**
MAGNITUDE
COMPARISON

15



**Quantity
Estimation —
Form**
ESTIMATION

16

03 Track, Report and Share

PAGES 18–24



**Number Sense —
Data Log and
Graph**
TRACKER

18



**Quick-Response
Observation
Checklist**
CHECKLIST

19



**Caseload
Summary**
ROSTER

20



**Quick Reference
for a Second Adult**
NOTES

21



**Family Update —
This Skill's
Progress**
NOTES

22



**Progress Note
Phrase Bank**
REFERENCE

23



**A Filled-In Data
Log (Invented
Student)**
EXAMPLE

24

Reading the tags: **Setup** once, before the first probe; **Goal** the sample and frame; the skill names (Subitizing, Number Naming, etc.) mark the seven timed forms; **Tracker** rolls weeks onto one page; **Checklist** is marked during or after a probe; **Roster** is a whole caseload on one grid; **Notes** is ready to send or read back; **Reference** is a language bank; **Example** is the worked, invented sample.



START HERE

Start Here — Three Steps

Ninety seconds of reading; the weekly routine takes about five.



1

Baseline, then write the goal

Give three baseline probes (subitizing is the default) on three different days at the same time limit. The middle RPM score is the baseline (page 8).

Write the goal from the six-part frame, starting from the sample and changing every bracket to fit the student.



2

Probe once a week, timed

Rotate the form types week to week (Subit A, B, C, D, Naming, Magnitude, Estimation, repeat). Every form is timed by your team's own clock, not a fixed window this file sets.

Score and log the same day (page 18); the log turns the raw count and time into responses correct per minute (RPM).



3

Watch, decide, report, share

The quick-response checklist (page 19) notes whether answers come instantly, from memory, or from a working strategy — never a cutoff this file sets.

The family update (page 22) and the phrase bank (page 23) turn the log into a note without a separate write-up.

WHAT THIS FILE IS

A fillable PDF. The goal page, the log, the checklist, the caseload page and the organizer are type-in; the seven timed forms print (a student reads from a clean copy, so nothing on them needs to be a field).

WHAT THIS FILE IS NOT

Not a Google Sheets file, a Google Doc or an Excel workbook, and not a norm-referenced test. It carries no fixed automaticity cutoff or benchmark score — your team decides what fluent enough means for this student, from the baseline and the IEP.

THE SEVEN FORMS AND WHAT THEY MEASURE

Four subitizing forms (dot clusters, 1–10), one number-naming form (numerals 1–100), one magnitude-comparison form, and one estimation form (clusters 1–15) — every form scores responses-correct-per-minute (RPM) and accuracy together.

CONFIDENTIALITY, IN ONE PARAGRAPH

A filled-in log is a student record. It stays in the data folder, never where another family can see it. Use initials on any page that leaves your hands; the family update carries a first name only.

PRINT AND PREP

- ☐ One student copy of each form in a sheet protector or laminated; the student reads it and writes nothing.
- ☐ A stopwatch or phone timer; the time limit is written on the goal page and on every form.
- ☐ The caseload page prints once a month.

IF SOMETHING DOES NOT WORK

The text disappears when I close it. It was opened in something that fills fields but does not save them. Open it in Acrobat Reader and use Save As.
Anything else — the **Ask a Question** tab on the product page. Every question is read, and a fix to the file is a free update.

GOAL

Number Sense — Goal and Directions

Goal, baseline and directions for one skill. Timed; score is correct responses per minute (RPM) and accuracy, together.

The student recognizes quantities (subitizing), names numerals, compares quantities (which is more?), and estimates quantities, all under a fixed, team-set time limit. Seven different forms measure these number-sense skills that require automaticity. The score is speed and accuracy together — responses correct per minute (RPM) — never accuracy alone.

SAMPLE GOAL — INVENTED; EDIT EVERY BRACKET TO FIT THE STUDENT

By [May 20], when given a [one-minute] timed number sense probe (subitizing clusters, number naming, magnitude comparison, or quantity estimation), [Student] will correctly identify or estimate [20] quantities per minute with at least [80] percent accuracy on [3] consecutive weekly probes, as measured by teacher-administered timed number sense probes (all seven forms, pages 10–16).

BY (DATE)

CRITERION (RPM, AND ACCURACY PERCENT, TOGETHER)

GIVEN (TIME LIMIT, ANY ALLOWED SUPPORT)

ON ____ OF ____ CONSECUTIVE PROBES

STUDENT WILL (RECOGNIZE / NAME / COMPARE / ESTIMATE, IN THE WORDS OF THE PROBE)

AS MEASURED BY (ALL SEVEN TIMED NUMBER SENSE PROBE FORMS, PAGES 10–16)

BASELINE: GIVE THREE PROBES ON THREE DAYS AT THE SAME TIME LIMIT, TAKE THE MIDDLE RPM SCORE

BASELINE PROBE 1	BASELINE PROBE 2	BASELINE PROBE 3	MEDIAN RPM (THE BASELINE)

BENCHMARKS TOWARD THE GOAL

#	BENCHMARK	TARGET DATE	TARGET RPM / ACCURACY	ACTUAL	MET?
1					
2					
3					

GIVING AND SCORING A PROBE

- ☐ Same time limit every session, written on the goal box and every form. Read the form-specific direction aloud.
- ☐ Mark each response correct or an error as the student goes; stop exactly at the time limit, even mid-cluster or mid-form, and circle the last item reached.
- ☐ $\text{RPM} = \text{correct responses} \div \text{minutes elapsed}$ (convert seconds $\div 60$). $\text{Accuracy} = \text{correct} \div \text{items reached}$.
- ☐ A criterion needs BOTH numbers to clear together — an RPM reached by rushing past wrong answers is not automaticity.

SCORING RULES FOR THIS STUDENT (ACCEPTED ANSWERS, REVERSALS, SUPPORTS ALLOWED)

.....

WHAT THE ERRORS SAY TO RETEACH (CARRY OVER FROM THE LOG)

.....

SUBITIZING

Subitizing — Form A

Form A: 40 dot clusters (1–10), mixed order, timed · scored by the adult, not the student.

STUDENT

DATE

FORM

TIME LIMIT (SET BY YOUR TEAM)

Subitizing A timed ·

40 clusters

Flash each cluster for about one second. Say: “How many dots? Say the number and move on.” Mark each response correct or an error as the student goes; stop exactly at the time limit.

TEACHER: MARK EACH RESPONSE CORRECT OR AN ERROR AS YOU GO, THEN TOTAL

TIME USED

_____ min _____
sec

ITEMS REACHED

_____ / 40

CORRECTLY IDENTIFIED

ERRORS

Write the time, items reached, correct count and errors on the data log (page 18) the same day; the log turns them into RPM (responses correct per minute = correct ÷ minutes elapsed). An item the student skips or refuses still counts toward “items reached” if the time ran out before it, but not if the student was still moving forward when time was called.

NUMBER NAMING

Number Naming Speed — Form

Number Naming: 40 numerals (1–100), mixed order, timed · scored by the adult, not the student.

STUDENT

DATE

FORM

TIME LIMIT (SET BY YOUR TEAM)

Number Naming

timed · 40 numerals

Say: “Say each number as fast as you can, left to right, top to bottom. If you are not sure, keep going.” Point to the first number, start the timer, and stop at the time limit.

87

5

64

62

99

100

13

12

76

74

23

34

75

30

82

61

26

92

52

94

53

89

35

37

14

72

80

97

51

98

58

55

77

38

96

49

83

11

32

48

TEACHER: MARK EACH RESPONSE CORRECT OR AN ERROR AS YOU GO, THEN TOTAL

TIME USED

_____ min _____
sec

ITEMS REACHED

_____ / 40

CORRECTLY IDENTIFIED

ERRORS

Write the time, items reached, correct count and errors on the data log (page 18) the same day; the log turns them into RPM (responses correct per minute = correct ÷ minutes elapsed). An item the student skips or refuses still counts toward “items reached” if the time ran out before it, but not if the student was still moving forward when time was called.

TRACKER

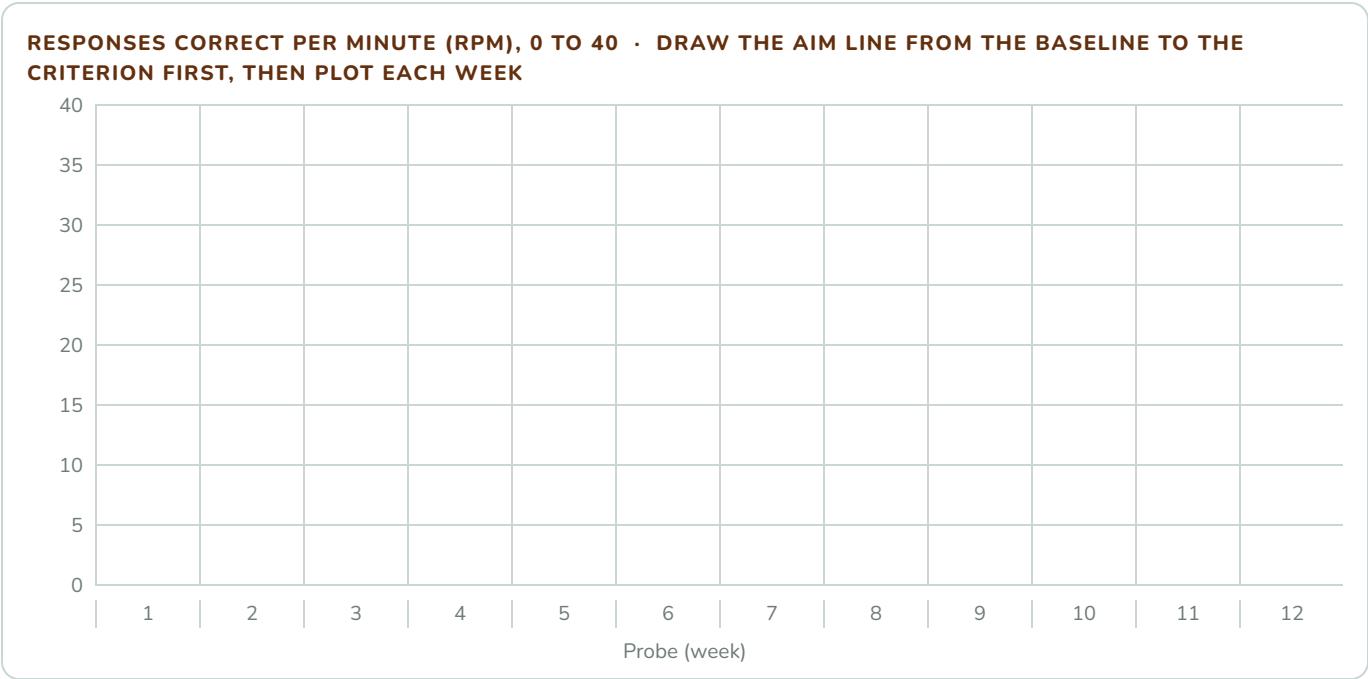
Number Sense — Data Log and Graph

One row per probe. Three points in a row under the aim line is a decision: change the teaching and write what changed in the notes.

STUDENT

CRITERION / AIM (RPM)

GOAL DATE



#	DATE	FORM	TIME (MIN)	REACHED	CORRECT	ERRORS	RPM	NOTES
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

EXAMPLE

A Filled-In Data Log (Invented Student)

SAMPLE · INVENTED STUDENT

Mira is invented, first grade. Twelve weekly timed probes of subitizing speed, the aim line, and the criterion close to being met.

THE GOAL, AS WRITTEN FOR MIRA, FIRST GRADE (INVENTED)

By May 20, when given a 1-minute timed number sense probe (subitizing clusters, number naming, magnitude comparison, or quantity estimation), Mira will correctly recognize or estimate 20 quantities per minute with at least 80 percent accuracy on 3 consecutive weekly probes, as measured by teacher-administered timed number sense probes (all seven forms).

#	DATE	FORM	TIME (SEC)	REACHED	CORRECT	ERRORS	RPM	NOTES
1	9/8	Subit A	60	38	32	6	32	baseline
2	9/9	Subit B	60	37	30	7	30	baseline
3	9/10	Subit C	60	39	34	5	34	baseline (median of 32, 30, 34 = 32)
4	9/17	Subit D	60	38	33	5	33	flat vs. baseline
5	9/24	Naming	60	37	31	6	31	flat vs. baseline
6	10/1	Magnitude	60	39	36	3	36	3 probes flat: added dot-cluster recognition games
7	10/8	Estimation	60	40	37	3	37	–
8	10/15	Subit A	60	40	38	2	38	–
9	10/22	Subit B	60	40	39	1	39	errors now mostly on 7-10 clusters
10	10/29	Subit C	60	40	39	1	39	accuracy 97.5%, above 80% target
11	11/5	Subit D	60	40	40	0	40	RPM criterion met (1 of 3); accuracy 100%
12	11/12	Naming	60	39	35	4	35	RPM criterion met (2 of 3); accuracy 89.7%

HOW TO READ THE LOG

- ☐ Baseline was the median of three subitizing forms on three days: 32, 30, 34, so 32.
- ☐ Mira's baseline already cleared the 20 RPM target, so the aim line holds at 20. Probes 4, 5 and 6 (33, 31, 36) sat flat with no further rise, so the teaching changed (dot-cluster recognition games), noted on the row.
- ☐ Errors moved from 5–7 per form down to 0–1 by week 11 — the note column tells what got practiced.
- ☐ RPM and accuracy met together on probes 11 (40, 100%) and 12 (35, 89.7%); probe 10 (39, 97.5%) met accuracy but not RPM. One more probe at 20+ and the goal is met.

THE PROGRESS REPORT SENTENCE THIS LOG PRODUCES

“On weekly timed number sense probes, Mira identified quantities at 32 per minute with 84 percent accuracy in early September and at 35 to 40 per minute with 89 to 100 percent accuracy on the two most recent probes in November. Progress is sufficient to meet the goal of 20 per minute at 80 percent accuracy on three consecutive probes by May.” Every number in it is on the log above; nothing is from memory.