Primary 1 Mathematics (MOE) — High-Impact Checklist & Improvement Guide (2026-ready)

Source webpage:
https://bukittimahtutor.com/primary-1-math-syllabus-moe-topics-skills-and-common-mistakes-with-free-pdf-download/
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Need help fast? If your child is struggling, message us for a quick diagnostic and targeted plan: **+65 8823 1234** (WhatsApp).
This PDF is designed to be **printed**. Tick boxes, run the mini-diagnostic, then follow the 6-week plan.

Singapore's Primary Mathematics curriculum emphasises **concepts + skills + processes + metacognition + attitudes**, with **problem solving** at the centre. At Primary 1, the goal is simple: build a strong number foundation and confident habits that prevent common mistakes from becoming "permanent bugs" later.

Priority Map (80/20) — Master these first

Priority A (non-negotiables)	**Number sense to 100** (count, read/write, compare, tens/ones) + **Add/Sub meaning & fluency** (within 20 then within 100). These two skills power most P1 tests and every later topic.
Priority B (build next)	**Time** (to 5 minutes, 1 hour/half hour durations) + **Money** (counting cents up to $1, dollars up to $100) + **Length** (cm, compare, draw to nearest cm).
Priority C (round out)	**Shapes & space language** (2D shapes, composing figures, copying on grids) + **Picture graphs** (read/interpret).

Daily 12-Minute Routine (works better than 1 long weekly session)

3 min Count & compare: count forwards/backwards to 100, then ask "Which is bigger? Why?" (tens/ones).
4 min Add/Sub within 20: 6-8 short questions; encourage "make 10" and counting-on from the larger number.
3 min Applied: 1 short word problem (more/less/altogether) or a money/time scenario from daily life.
2 min Error check: child explains one answer in words ("I know because..."). This builds metacognition and reduces careless errors.

MOE Primary 1 Content Checklist (tick when mastered)

Tip: For each box, your child should be able to do it **without prompting** and explain it in simple words.

A) Number and Algebra

[ ] **Numbers up to 100**: counts objects accurately; reads/writes numerals and number words; understands tens/ones; compares/orders numbers; recognises simple number patterns; uses ordinal numbers (1st to 10th).

[ ] **Addition and subtraction**: understands meaning (combine/take away); uses +, -, = correctly; knows they are related (inverse); adds more than two 1-digit numbers; adds/subtracts within 100; uses standard written methods when taught; uses mental strategies (within 20, 2-digit + ones without renaming, 2-digit + tens).

[ ] **Multiplication and division**: understands equal groups and sharing; uses x; multiplies within 40 and divides within 20 (concept first, speed later).

[ ] **Money**: counts money in cents (up to $1) and dollars (up to $100).

B) Measurement and Geometry

[ ] **Length**: measures in centimetres (cm), compares/orders lengths, draws a line segment to the nearest cm.

[ ] **Time**: tells time to 5 minutes; uses am/pm; knows h and min; understands duration of one hour and half hour.

[ ] **2D Shapes**: identifies and describes rectangle, square, triangle, circle, half circle, quarter circle; forms and composes figures; identifies shapes within a picture; copies figures on dot/square grids.

C) Statistics

[ ] **Picture graphs**: reads and interprets simple picture graphs (what is most/least, how many more/less).

Mastery Indicators (use this to avoid 'looks OK' illusions)

Skill	What mastery looks like (observable)	Common false confidence
Counting & number sense	Counts accurately to 100; can start from any number (e.g., 37 to 50); compares using tens/ones language.	Can recite sequence but miscounts objects or cannot start from a given number.
Place value	Explains 68 as 6 tens and 8 ones; can build it with sticks/blocks; avoids digit reversal.	Reads 12 as 21; treats digits as independent.
Add/Sub	Chooses a strategy (make 10, counting-on, number bonds); checks with inverse (e.g., 14-9=5 then 5+9=14).	Only does one method; gets stuck when numbers look different.
Time	Reads to 5 minutes; explains minute hand movement; solves 1 hour/half hour duration questions.	Knows 'o'clock' but fails for 5-minute intervals or am/pm.
Money	Counts mixed coins efficiently; can make a target amount in more than one way.	Counts one-by-one; confuses 5c/50c or dollars/cents.

Common Mistakes — Fast Fixes (print this page)

If you spot any red-flag pattern more than twice in a week, fix it immediately. Early gaps compound fast.

Mistake pattern	What it looks like	Fast fix (10 minutes/day)
Counting errors	Skips numbers, double-counts objects, loses track after 20.	Count real objects; touch-and-say; use a number line; practise 'start from 37, count 10 more'.
Tens/ones confusion	Reads 12 as 21; says 40+8 is 48 but cannot show it.	Use bundles of 10 + loose ones (straws/blocks). Ask: 'How many tens? How many ones?'
Equals sign misunderstanding	Treats '=' as 'answer comes next' (e.g., 7+3= __ +4).	Use balance language: '=' means 'same as'. Practise '7+3 = 6+4' with counters.
Add/Sub strategy gaps	Counts from 1 every time; forgets that subtraction undoes addition.	Teach counting-on from the larger number; practise number bonds to 10; check using inverse.
Algorithm alignment issues	Writes numbers misaligned; mixes tens/ones columns.	Graph paper for 2-digit sums; one digit per box; verbalise 'ones under ones'.
Time-telling confusion	Swaps hour/minute hands; guesses am/pm; cannot do half-hour duration.	Daily clock talk: 'minute hand points to 6 = 30'. Link to routine times; practise 1-hour/half-hour jumps.
Money confusion	Mixes 5c and 50c; cannot make $1 efficiently.	Sort coins; practise making a target amount in 2 ways; use place value (cents vs dollars).
Shape misidentification	Calls rectangles squares; cannot find shapes inside a picture.	Shape hunt at home; sort by properties (sides/corners); compose figures with cut-outs.
Careless symbol use	Writes + instead of -, forgets units (cm), leaves blanks.	One-check habit: sign, digits, units. Encourage 'read your equation aloud' before finalising.

Quick triage: do you need extra help?

Tick any that apply:
[ ] My child takes >30 seconds for most within-20 questions.
[ ] My child cannot explain answers in words or drawings.
[ ] My child avoids word problems or panics easily.
[ ] Weekly tests stay below 70% despite practice.

If you tick **2 or more**, get targeted coaching early. WhatsApp **+65 8823 1234** for a quick diagnostic plan.

15-Minute Mini-Diagnostic (Primary 1)

Do this once now, then repeat in 2 weeks. Mark quickly. Track mistakes and re-practise the same pattern with new numbers.

1. Write in words: 47

2. Circle the larger number: 58 or 85

3. In 68, there are ____ tens and ____ ones.

4. 8 + 7 = ____

5. 14 - 9 = ____

6. 38 + 20 = ____

7. 63 - 30 = ____

8. 3 + 5 + 7 = ____

9. 4 groups of 3 = 4 x 3 = ____

10. 12 sweets shared equally among 3 children. Each gets ____ sweets.

11. An activity starts at 2:00 pm and ends at 2:30 pm. The duration is ____ (hour/half hour).

12. 50c + 20c + 10c = ____ c

13. A pencil is 9 cm long. Another pencil is 12 cm long. The longer pencil is ____ cm longer.

14. Picture graph (each X = 1): Apples XXX, Oranges XX. How many more apples than oranges? ____

Answer Key (for parents)

1) forty-seven
2) 85
3) 6 tens, 8 ones
4) 15
5) 5
6) 58
7) 33
8) 15
9) 12
10) 4
11) half hour
12) 80
13) 3
14) 1

How to interpret results

13-14 correct: On track. Focus on speed + explanation quality (metacognition).
10-12 correct: Good base. Identify the 2 weakest areas and practise them daily for 2 weeks.
< 10 correct: Foundation gaps. Use the Priority Map and consider guided help to prevent frustration.

6-Week Improvement Plan (lightweight, high leverage)

This is designed for busy families: small daily reps, spaced over time. Research supports practice testing and spaced practice over passive re-reading.

Week	Main goal	What to do (5 days/week, ~12-15 min/day)
1	Counting + tens/ones	Count to 100; build numbers with tens/ones; compare/order 10 mixed numbers.
2	Add/Sub within 20	6-8 quick questions/day; practise make-10; 1 word problem/day.
3	Add/Sub within 100	2-digit + tens; 2-digit + ones (no renaming first); simple written method with place alignment.
4	Time + duration	Read time to 5 min; solve 1 hour/half hour duration questions; connect to daily routine.
5	Money + length	Count mixed coins; make $1 in 2 ways; measure/draw lines in cm; compare lengths.
6	Mixed review + graphs/shapes	Interleave: 2 questions from each topic; 1 picture graph question; 1 shape composition/copy grid task.

High-IQ coaching prompts (build reasoning + confidence)

Use these lines during practice (they build the 'process' skills MOE expects):
- "Show me with objects or a drawing first." (Concrete/Pictorial)
- "Tell me your plan before you start." (Strategy selection)
- "How do you know it's correct?" (Reasoning + checking)
- "Is there another way?" (Flexibility)
- "What mistake might someone else make here?" (Metacognition)

References & Useful Links

Official syllabus sources
• MOE, *Mathematics Syllabus Primary One to Six (2021; updated Dec 2024)*: PDF
• MOE primary subjects and syllabuses page: MOE syllabus downloads

Learning methods (evidence-informed)
• Dunlosky et al. (2013), *Improving Students' Learning With Effective Learning Techniques* (practice testing, spaced practice, interleaving): PubMed
• Roediger & Karpicke (2006), *The Power of Testing Memory* (testing effect): PDF
• Hui (2017), *Concrete-Pictorial-Abstract (CPA) sequence in Singapore primary maths*: NIE paper

This PDF was derived from the BukitTimahTutor.com article
• Primary 1 Math Syllabus MOE: Topics, Skills, and Common Mistakes

Need personal help? WhatsApp/Call **+65 8823 1234** for Primary Math tuition support.