SCHEME OF WORK CHECKLIST FROM SEPT 2016 – FORM 2: TERM I
TEXT: MATHEMATICS FOR CARIBBEAN SCHOOLS BOOK 2 2nd Edn.
              or MATHEMATICS A COMPLETE COURSE WITH CXC
              QUESTIONS VOL. 1

WEEK **1 & 2** ANY UNCOMPLETED TOPICS FROM FORM 1

<u>1. NUMBER THEORY (II)</u>   OR Toolsie p11 - 24

WEEK **3 – 5**   **7.** Generate a term of a Sequence given a rule (p2 – 5)   _____

                    8. Derive an appropriate rule given the terms of a sequence p2 - 5   _____

                    9. Use properties of Numbers & Operations in computational tasks: (p2 - 3;
                         p13 - 17; p23 - 30)

                         Additive & Multiplicative identities & inverses   _____
                          concept of Closure   _____

                         Properties of operations such as

                         Commutativity   _____
                          Distributivity   _____
                         Associativity   _____

                         Order of operations in problems with mixed operations (BODMAS).   _____

                    10. Solve problems involving concepts in number theory (including
                          Reciprocals & powers of numbers) (p3 - 5; Toolsie, Vol.1, p92 - 94)   _____

                          *Compute powers of real numbers of the form x^a, $a \in \mathbf{Q}$; including
                          squares, square roots, cubes & cube roots.*   _____

<u>2. ALGEBRA (II)</u>

WEEK **6 – 9**   **7.** Apply the Distributive Law to insert (factorize) or remove brackets in algebraic
                       expressions, for e.g., $ax \pm bx \equiv (a \pm b)x$ (p165 - 169 OR Toolsie p223-232)_____

                    8. Simplify algebraic fractions (p30 - 33 OR Toolsie p232 - 235)   _____

                    9. Formulae (change of subject)
                       (Toolsie Vol.2, p744, Ex. 13c, Q1 - 75 OR 1st Edn. Bk 2, p177 - 183)   _____

                    10. Use linear equation to solve (p74 - 83) OR (Toolsie p235 - 240; 248 - 252)

                          (i) given algebraic equations   _____
                          (ii) word problems   _____

11. Solve a *simple* linear inequality in one unknown & represent the
solution using (p127 - 133) OR (Toolsie p240 - 244; 252 - 254)

    (a) set notation   _____
    (b) the number line (line graphs)   _____
    (c) Cartesian graphs   _____

3. SETS (II)

WEEK 10 – 11   **6.** Construct & use Venn diagrams to show (<u>not more than 3 sets</u>)

    (i)   subsets   _____
    (ii) complements   _____
    (iii) the Intersection & Union of sets   _____

   7. Determine the number of elements in named subsets of two intersecting
sets, given the number of elements in some of the other subsets;   _____

   8. Solve problems involving the use of Venn diagrams (**involving *x***)
with <u>not more than three sets.</u>   _____

4. CONSUMER ARITHMETIC (II) OR Toolsie p160 - 169; p175 - 209

WEEK 12 – 14   **5.** Solve problems involving Simple Interest to find:

    Principal   _____
    Time   _____
    Rate   _____
    Amount   _____

   6. Solve problems involving measures & money p174

    (a) Utility bills   _____
    (b) Invoices & Shopping bills   _____
    (c) Insurances   _____
    (d) Salaries & Wages, Overtime, Commission   _____

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5. COMPUTATION (II)

WEEK 1 – 3   **10.** Convert from one set of units to another, given a conversion scale
(p107; Ex. 13d, Q1, 2, 4, 5 OR Toolsie p149 - 150; p193 - 196) for e.g.,
converting within the metric scale (Volume);   _____

     11. (i) Write any Rational Number in **Standard Form** (scientific notation)
(P41 - 49 OR Toolsie p64 - 65; p266 - 268)   _____

        (ii) Add, Subtract, Multiply & Divide Large & Small Numbers written
in Standard Form   _____

6. STATISTICS (II)

WEEK 4 & 5   **4.** Represent Numerical & Statistical Data by a Line graph on the Rectangular
Cartesian plane (p64 - 70, p100 - 106)   _____

7. RELATIONS, FUNCTIONS & GRAPHS (I)   OR (Toolsie p345 - 348; p330, Eg. 37 parts a & c; Ex. 7w, 1a & 15 a & c; Ex. 7x, Q3)

WEEK 6 & 7   **1.** Draw & Interpret (p107 - 109; p155 Ex. 18d, Q 11, 12)

     Distance-Time graphs (straight line only, using **Graph Paper**) to determine

        (i)   Distance   _____
        (ii)   Time   _____
        (iii) Speed   _____

8. GEOMETRY (II)   OR Toolsie p390 - 391; p396 - 411; p 415 - 422; p426 - 435; p439 - 444; p457 - 459

WEEK 8 & 9   **4.** Use instruments (**not necessarily restricted to ruler & compasses**) to construct
(Bk 1, 1st Edn., p155 - 161)

        (a) Triangles: *equilateral, isosceles, scalene, obtuse, right, acute*   _____
        (b) Parallel lines (using ruler & set square)   _____
        (c) Perpendicular lines (using ruler & set square)   _____

WEEK 10 – 12   Toolsie p397 - 406; p435 - 438; p450 - 457; p408 - 426; p444 - 450; p481 - 490

     5. Use the properties of Perpendicular & Parallel lines to (Mathematics for
Caribbean Schools Bk 1, 2nd Edn., p143 - 153)

        (i)   Draw accurate Geometrical Figures   _____
        (ii)   Solve problems.   _____
        (iii) *Lines of* Symmetry (Mathematics for Caribbean Schools Bk 2,
2nd Edn., p172 - 177)   _____

6. Use instruments (**not necessarily restricted to Ruler & Compasses**) to (p6 - 12; p176 - 183)

       (a) Construct a line segment   _____
       (b) Bisect a line   _____
       (c) Bisect an angle   _____

       (d) Construct Angles *and their combinations*

             (i) $30^0, 45^0, 60^0$ _____
             (ii) 90^0 (from a point on the line segment; to a line segment
                       from a point)   _____
             (iii) 120^0 _____

       (e) Triangles: *equilateral, isosceles, scalene, obtuse, right, acute*   _____
       (f) Quadrilaterals   _____
       (g) Polygons: regular & irregular (e.g. pentagon to decagon)   _____
       (h) Circles   _____

7. Solve problems using: (Bk 1, 2nd Edn., p95 - 102; p47 - 56)

  (a) the properties of

   (i) Polygons (including interior & exterior angles where appropriate)

     Triangles: equilateral, right, isosceles   _____
     Square   _____
     Rectangle   _____
     Rhombus   _____
     Kite   _____
     Parallelogram   _____
     Trapezium   _____
     Other polygons   _____

  (b) the properties of circles (not including circle theorems)   _____

  (c) the properties of congruent triangles   _____

  (d) the properties of similar figures *(for e.g. similar triangles)*   _____

8. Use Pythagoras' Theorem to solve problems (p110 - 118)   _____

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9. <u>MEASUREMENT (II)</u>   OR Toolsie p127 - 144; p152 - 156

WEEK **1 – 3**   **9.** (a) Properties of faces, edges & vertices of solids:
                        Cube   _____
                        Cuboid   _____
                        Prism   _____
                        Pyramid   _____

            (b) Calculate the Volume & Surface Area of Solids: (p34 - 39)
                        Cube   _____
                        Cuboid   _____
                        Prism   _____
                        Pyramid   _____

     10. Use Maps & Scale Drawings to determine Distances & Areas. (p84 - 92)   _____

WEEK **4 –**   REVISION EXERCISES, TESTS & PAST PAPERS