Subject: Mathematics   **Year: 8**   **Name:** _____

STRAND: – Number and Numeration
SUB – STRAND: Numbers and Operations
CLO: Explain and organise numbers in multiples and factors

LESSON NOTES:

MULTIPLES AND FACTORS

Multiples, Common Multiples and Lowest Common Multiples

MULTIPLES:
Find the multiples of 6 and 8
M{6} = {6,12,18,24,30,36,42,48,54,60…}
M{8} = {8,16,24,32,40,48,56,64,72,80,…..}
Find the Common Multiple of 6 and 8
        {24, 48 …}
The Lowest Common Multiple [LCM] is 24

FACTORS:
Find the Factors of 12 and 20
F {12} = {1, 2, 3, 4, 6, 12}
F {20} = {1, 2, 4, 5, 10, 20}
Find the Common Factors of 12 and 20
        {1, 2, 4}
The Highest Common Factor [HCF] is 4

QUESTIONS

1. Find
   a. M{7} = {7, 14, 21, 28, 35, 42, 49, 56, 63, 70, …}
   b. M{9} = {9, 18, 27, 36, 45, 54, 63, 72, …}
   c. M{7}∩M{9} = {63, 126, …}
   d. LCM of 7 and 9 = 63

2. Find
   a. F{36} = {1, 2, 3, 4, 6, 9, 12, 18, 36}
   b. F{48} = {1, 2, 3, 4, 6, 8, 12, 16, 24, 28}
   c. F{36}∩F{48} = {1, 2, 3, 4, 6, 12}
   d. HCF of 36 and 48 = {12}

3. Find LCM of 3 and 4
   M{3} = {3, 6, 9, 12, 15, 18, …}
   M{4} = {4, 8, 12, 16, 24, …}
   M{3}∩M{4} = {12, 24, 36, …}
   LCM of 3 and 4 = 12

4. Find HCF of 24 and 30
   F{24} = {1, 2, 3, 4, 6, 12, 18, 24}
   F{30} = {1, 2, 3, 5, 6, 10, 15, 30}
   F{24}∩F{30} = {1, 2, 3, 6}
   HCF of 24 and 30 = {6}