## Foundational Facts

### Twos
- Multiplying by 2 is doubling the number.
- **2 x 7.** Think double 7. Think 7 + 7

### Tens
- Multiplying by 10 increases a number tenfold.
- **10 x 2 = 20**
  - *Think ten-frames and base ten blocks.*

### Fives
- Think **skip counting** by 5’s or think half of multiplying by 10.
- **5 x 2 = 10**

### Ones
- Multiplying by 1 equals the number because it is 1 group.
- **6 x 1 = 6**

### Zeros
- If you multiply a number by 0 the product is always 0.
- **9 x 0 = 0**

## Building on the Foundation

### Threes
- Multiplying by 3 can be thought of as doubling the number and then adding 1 more group, or as tripling the number.
- **4 x 3.** Think 4 x 2 and add one more group of 4.

### Fours
- Double the number, and then double it again.
- **4 x 7.** Think *(2 x 7) + (2 x 7)*

### Sixes
- Multiplying by 6 can be thought of as doubling a multiple of 3.
- **6 x 7.** Think *(3 x7) + (3 x 7)*

### Nines
- Think of the 9 as a 10, then subtract one group.
- **8 x 9.** Think 8 x 10 - 9

### Eights
- Multiplying by 8 is double multiplying by 4.
- **7 x 8.** Think *(7 x2) + (7 x 2) + (7 x 2) + (7x2) or (7x 4) + (7 x 4)*

### Sevens
- Decompose the 7 and multiply in smaller steps (Distributive Property)
- **4 x 7.** Think *(4 x2) + (4 x 5)*

## Commutative Property
- Order doesn't matter when multiplying.
- **4 x 6 = 24** and **6 x 4 = 24**

### Multiplication Strategies

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor</th>
<th>Product</th>
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</thead>
<tbody>
<tr>
<td>8 x 4</td>
<td></td>
<td>32</td>
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