Pack 10 Session A
Talk Task: Short multiplication

23 × 4

12 tens
8 ones

23 × 5

11 tens
1 one

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Pack 10 Session A  
**Activity:** Short multiplication

1) What has gone wrong? Write the correct calculation under each error.

\[
\begin{array}{c}
26 \\
\times \ 3 \\
\hline
618
\end{array} \quad \begin{array}{c}
45 \\
\times \ 4 \\
\hline
49
\end{array} \quad \begin{array}{c}
36 \\
\times \ 7 \\
\hline
2124
\end{array}
\]

2) Using the digits 3, 4 and 5, what products can you make?

\[
\begin{array}{cc}
\times \ 3 \\
\hline
\end{array} \quad \begin{array}{cc}
\times \ 4 \\
\hline
\end{array} \quad \begin{array}{cc}
\times \ 5 \\
\hline
\end{array} \quad \begin{array}{cc}
\times \ 6 \\
\hline
\end{array}
\]

Find all 6 possibilities.
What do you notice about the products?
Why are there four multiples of 5?
Talk Task: Models of multiplication

2 tens 4 ones

3
6 tens 12 ones

20
3

4
80
12

0 3 9 20 23

2 3
× 4
9 2
1

2 3
× 3
6 9
1

2 4
× 3
7 2
1
Pack 10 Session B

Activity: Models of multiplication

1) Complete each calculation and label or draw a diagram.
   a)  
      \[
      \begin{array}{c}
      2 \ 4 \\
      \times \ 6
      \end{array}
      \]
   
   b)  
      \[
      \begin{array}{c}
      3 \ 4 \\
      \times \ 9
      \end{array}
      \]
   
   c)  
      \[
      \begin{array}{c}
      4 \ 7 \\
      \times \ 4
      \end{array}
      \]

2) Using the digits 4, 5 and 6, what products can you make?

   \[
   \begin{array}{cccc}
   \times & \times & \times & \times \\
   \end{array}
   \]

   Where is the largest digit for the largest product?
   Where is the smallest digit for the smallest product?

   Explore how to find the largest and smallest product with other digits.
Pack 10 Session C
Talk Task: 2-digit by 2-digit multiplication

\[
\square = 14 \times 10
\]

\[
\square = 14 \times 11
\]

\[
\square = 14 \times 12
\]

\[
\square = 14 \times 13
\]
Pack 10 Session C

**Activity:** 2-digit by 2-digit multiplication

1) Complete the drawings and the calculations

\[ \square \times 10 = 160 \quad 16 \times \square = 176 \quad 16 \times 12 = 192 \]

\[ \square \times 10 = 160 \quad \square \] \[ \square \times 10 = 160 \quad \square \] \[ \square \times 10 = 160 \quad \square \]

\[ 16 \times \square = 208 \quad 16 \times 14 = 224 \quad 16 \times 15 = \square \]

\[ 16 \times \square = 208 \quad 16 \times \square = 208 \quad \square \]

2) Complete the calculations

a) \[ 24 \times 2 = \square \]

b) \[ 45 = 15 \times \square \]

\[ 24 \times 3 = \square \]

b) \[ 60 = 15 \times \square \]

\[ 24 \times 30 = \square \]

b) \[ 600 = 15 \times \square \]

\[ 24 \times 32 = \square \]

b) \[ \square = 15 \times 43 \]

c) Choose one set of calculations and draw a diagram:
Talk Task: Long multiplication

\[
\begin{array}{c}
3 \quad 4 \\
\times \quad 1 \quad 2 \\
\hline
6 \quad 8 \\
\end{array}
\]

\[
\begin{array}{c}
3 \quad 4 \\
\times \quad 1 \quad 3 \\
\hline
6 \quad 8 \\
\end{array}
\]

\[
\begin{array}{c}
3 \quad 4 \\
\times \quad 2 \quad 2 \\
\hline
6 \quad 8 \\
\end{array}
\]
Pack 10 Session D

**Activity**: Long multiplication

1) Label the model and complete the calculation

\[
\begin{array}{c}
3 \\
2 \\
\times \\
1 \\
3 \\
\end{array}
\]

2) Label the model and complete the calculation

\[
\begin{array}{c}
3 \\
6 \\
\times \\
2 \\
3 \\
\end{array}
\]

3) Draw a model and complete the calculation

\[
\begin{array}{c}
3 \\
6 \\
\times \\
2 \\
9 \\
\end{array}
\]