L.O - To understand the different ways in which calculations are connected.

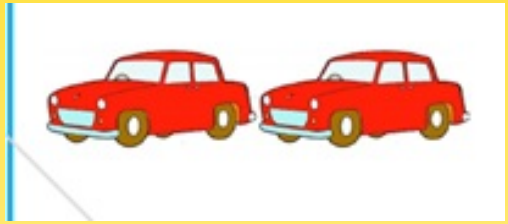
>
To use practical and visual representations to identify connections between objects

>
To problem solve and reason using different ways.

>
To use the four operations to solve calculations in different ways.

Today we are going to explore the different ways in which we can interpret physical and visual objects to identify a calculation.

Have a look at the image below, what questions could you ask based on the two cars?



How many wheels are there altogether?

How many cars are in the picture?

How many windows are there in total?

Using addition show how you could answer the questions below.

How many wheels are there all together?

How many cars are in the picture?

How many windows are there in total?

Now show me how to answer the same questions using multiplication.

How many petals are there all together?

___ x ___ = ___ x ___ =

3 x 5 = 15 8 x 4 = 32

$$\begin{array}{r} 32 \\ +\ 15 \\ \hline 47 \end{array}$$

Altogether there are 47 petals.

The image shows that $6 \times 2 + 6 \times 3 = 30$

Can you find another way of making 30 using multiplication facts for the 2 and 3 times tables?

Write them in your home learning book.

Fluency

Represent the number of wheels using multiplication sentences:

_____ × _____ = _____ × _____ =

How many wheels are there in total?

Represent the number of eyes using multiplication sentences.

___ x ___ = ___ ___ x ___ = ___

How many eyes are there in total?

Varied Fluency

Jack has 3 T-shirts and 4 pairs of trousers. Complete the table to show how many different outfits he can make.

T-shirt	Trousers
Blue	Blue
Blue	Dark blue
Blue	Orange
Blue	Green

Alex has 4 shape cards and 3 number cards.

She chooses a shape card and a number card.
List all the possible ways she could do this.

Reasoning

Eva chooses a snack and a drink.

What could she have chosen?
How many different possibilities are there?

____ × ____ = ____

There are ____ possibilities.

How many of the ways contain an apple?

Problem solving

Jack has some jumpers and pairs of trousers.
He can make 15 different outfits.
How many jumpers could he have and how many pairs of trousers could he have?

Eva chooses a snack and a drink.

What could she have chosen?
How many different possibilities are there?

____ × ____ = ____

There are ____ possibilities.

How many of the ways contain an apple?

There are 15 possibilities.
AW
AC
AO
PW
PC
PO
SW
SC
SO
DW
DC
DO
BW
BC
BO

3 ways contain an apple.

Jack has some jumpers and pairs of trousers.
He can make 15 different outfits.
How many jumpers could he have and how many pairs of trousers could he have?

He could have:
1 jumper and 15 pairs of trousers.
3 jumpers and 5 pairs of trousers.
15 jumpers and 1 pair of trousers.
5 jumpers and 3 pairs of trousers.