

First, begin the lesson by completing a simulation of the year 4 multiplication test.

You have 25 random times table questions to answer and you are given 6 seconds to answer each one. Try not to use any times tables sheets/ resources to help you, we need to be fluent by now!

Lesson:

One very important thing to remember when solving correspondence problems is to work systematically. That means to do things in an order that will help you. In correspondence problems, it is so easy to miss things out if you don't work in an order that will ensure you count every part of the problem. Let's look at the same example from yesterday:

In a shop, there are 2 types of ice cream cones and 3 different flavours. Work out how many different combinations you could get if you selected one cone and one ice cream flavour.

Cones types:	Ice cream flavours:
Waffle cone	Chocolate
Wafer cone	Vanilla
	Strawberry

We can choose to work systematically or randomly. If we choose random cones and flavours in no particular order, it is very easy to get confused. For example:

Waffle cone + strawberry

Wafer cone + chocolate

Waffle cone + vanilla

Wafer cone + chocolate

See how it's now hard to tell which you have missed? Can you work out which 2 I missed? You most likely can, but not very easily.

Correspondence problems become so much easier when you work them out systematically. Choose one cone and work down every flavour, then move onto the next one.

I would solve the problem by first looking at all the waffle cone combinations and then looking at all the wafer cone combinations and moving down each ice cream flavour in order, making sure I don't miss any out.

Waffle cone + chocolate

Waffle cone + vanilla

Waffle cone + strawberry

Wafer cone + chocolate

Wafer cone + vanilla

Wafer cone + strawberry

Remember, the mathematical way to solve the problem is to multiply the two groups together.








$$2 \times 3 = 6$$

Task:

Have a go at these correspondence problem questions. Please do not worry if you don't have time to complete every single question. Just work for the allotted time and get as far as you can. If you find these particularly hard, I am happy for you to come up with your own questions with the help of an adult like mine above.

- 1) Farrah is choosing a flower and a vase to decorate her room.



Vase			Flower			
						
Big	Medium	Small	Rose	Daffodil	Lily	Tulip



- a) List all the different combinations of one flower and one vase that she could choose. Could you use a code to help you – for example, BR meaning big and rose?

- b) Complete the multiplication calculation to represent the combinations.

$$\square \times \square = \square$$

There are \square different combinations.

- 2) Anwar has the number shapes for 1-6. He sorts them into odd and even. He chooses one number shape from each group.

Odd	Even
	

- a) One combination Anwar could choose is 3 and 6. What are all the possible combinations of number shapes that he could choose?

- b) Write the multiplication calculation to represent the possible combinations. _____

- c) If he chose 3 and 6, it would make a total of 9. What are all the possible different totals that he could make?

At holiday club, there are 2 different morning activities, 3 different afternoon activities and 3 different evening activities.

The children each choose one morning, one afternoon and one evening activity.



Morning	Afternoon	Evening
Painting	Football	Reading
Gardening	Swimming	Movie
	Bowling	Board games



- a) Write a multiplication calculation to represent the combinations.

$$\square \times \square \times \square = \square$$

- b) If there were 12 different combinations of activities, how many morning, afternoon and evening activities could there be?

2) Emily and Stefan want to find how many different combinations of morning, afternoon and evening activities they could choose.

a) Can you explain the mistakes that they have made?



There are 8 different activity options so there are 8 different possible combinations.

Emily

You can calculate $2 + 3 + 3$ to find the answer.

Stefan



b) What method would help Emily to understand how she can find all the different possible combinations?

Challenges:

Jack - Come up with your own correspondence problem and solve it! Stick with one group of 2 and one group of 3 for now. Use my ice cream question for inspiration.

Queen -

2) Ben has 3 hats, 2 jumpers and 2 pairs of trousers.
Eli has 6 jumpers and 3 pairs of trousers.



I have the most different possible outfits.

Ben

Is Ben wrong or right?
Use multiplication calculations to prove it.

Ace -

1) Henry has some hats, some jumpers and some pairs of trousers. He can make 24 different outfits. How many hats, jumpers and pairs of trousers could he have?

