

~~Paper Airplanes~~

Math Fun Inside

Math games from Mrs. Polsom

Don't forget to check out www.mrspolsom.com

Send pictures of your activities to your classroom teacher or to Mrs. Polsom at spolsom@sd57.bc.ca

Pssst..... there's a paper airplane challenge at the end





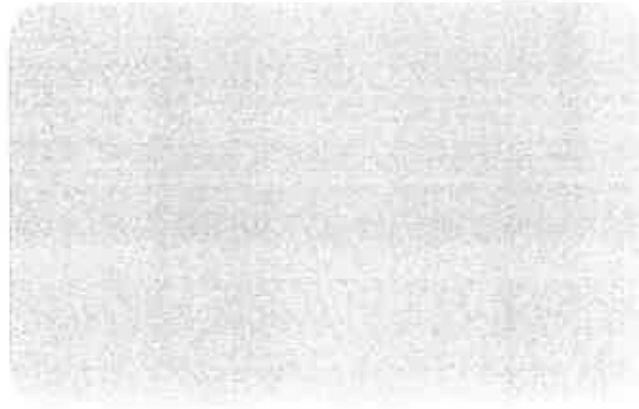
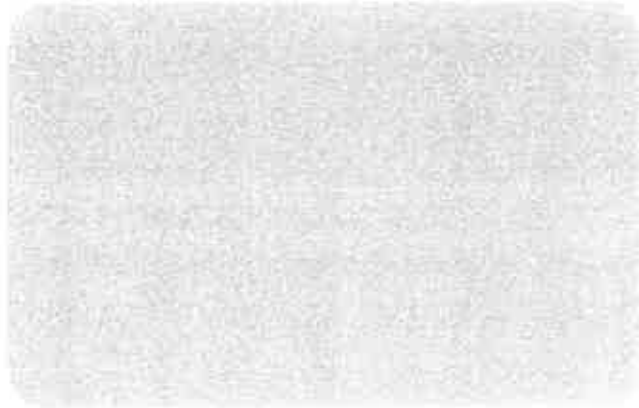
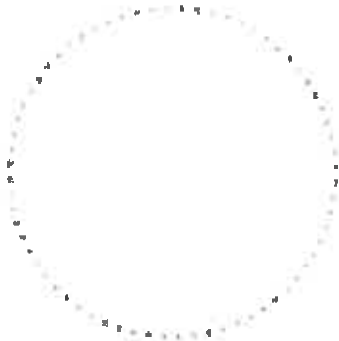
Why was the math book sad? – Because it had too many problems.

What did the triangle say to the circle? – You're pointless.

Why didn't the two 4's want any dinner? Because they already 8!



MAKE



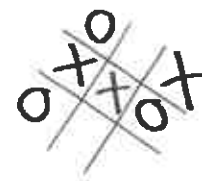
How to play:

note: face cards = 10

1. Decide what number you are going to make.
2. Place deck of cards on deck space and flip over 6 cards to place in other 6 spaces.
3. Player one looks at face up cards and decides if they can make the number.
 - I. The number can be made using a combination of addition and subtraction.
For example: $10+7-2=15$
 - II. If they can make the number they take those cards and put them in their pile on the side. Then they replace the face up cards they took with cards from the deck and it's player two's turn.
 - III. If they can't make the number, player one moves all the face up cards to the bottom of the deck pile and places 6 new cards face up. It is now player two's turn.
4. Play continues until all the cards are gone.
5. The winner is whoever collected the most cards.

For video instructions check out www.mrspolsom.com

Multiplication Tic Tac Toe



Object of the game: to get 3 or more markers in a row

Supplies: deck of cards (remove Kings), markers (2 different colours). Note: Jacks = 11, Queens = 12

How to play: Player one draws 2 cards from the deck and multiplies them together. Player one then covers all possible product locations with their markers.

For example, player 1 draws an 8 and a 2.

$$8 \times 2 = 16, 2 \times 8 = 16, \text{ and even } 4 \times 4 = 16$$

Then it is player 2's turn. Play alternates until a player gets 3 or more of their markers in a row. When this happens the player removes their markers and scores a point for each (i.e. 3 in a row = 3 points, 4 in a row = 4 points, etc.)

Players CAN steal their opponent's space in two ways.

1. If they make a product that is already occupied by their opponent, they replace their opponent's markers with their own.
2. If their opponent misses a space. For example if their opponent covered the $8 \times 2 = 16$ and $2 \times 8 = 16$ spaces but forgot the $4 \times 4 = 16$ space, then that space could be stolen at the end of their opponent's turn.

Winner is the player with the most points at the end of a set number of rounds or a set amount of time.

MULTIPLICATION CHART

x	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

To Sum It Up

Object of the game: to make the greatest sum

Supplies: deck of cards, one "gameboard" per player

Instructions: The deck is placed face down. A card is drawn and is placed face up. Each player selects a space on their game board and write the number of this card in it. Continue to draw cards until all spots on game boards are filled in. Players complete the addition question they created. The player with the greatest sum is the winner of that round and scores a point. Players decided how many rounds or for how much time they will play.

Example: The first card turned over was a 5. The second card turned over was a 7.

The image shows three 3x3 grids representing gameboards for three players. Each grid has a plus sign (+) in the bottom-left corner. The numbers in the grids are as follows:

	5	
7		

Player 1

	7	
5		

Player 2

	5	
	7	

Player 3

2 Digit plus 2 Digit



To Sum It Up Game Boards

3 Digit plus 3 Digit



4 Digit plus 4 Digit



3 Digit plus 3 Digit plus 3 Digit



What's the Difference?

Object of the game: to make the smallest difference

Supplies: deck of cards, one "gameboard" per player

Instructions: The deck is placed face down. A card is drawn and is placed face up. Each player selects a space on their game board and write the number of this card in it. Continue to draw cards until all spots on game boards are filled in. Players complete the subtraction question they created. The player with the smallest difference is the winner of that round and scores a point. Any negative differences cause players to strike out of that round. Players decided how many rounds or for how much time they will play.

Example: The first card turned over was a 7. The second card turned over was a 2.

Player 1		Player 2	
2			7
	7		2

2 Digit minus 2 Digit

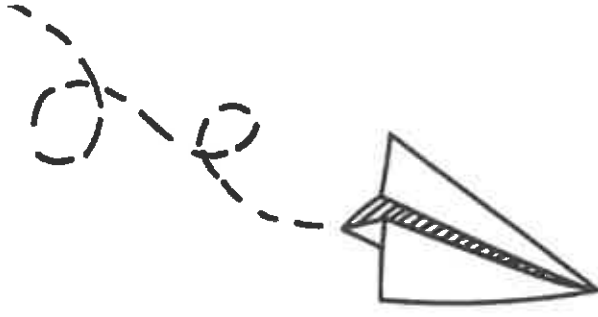
What's the Difference? Game Boards

3 Digit minus 3 Digit

4 Digit minus 4 Digit

3 Digit minus 2 Digit

The ULTIMATE Paper Airplane Competition



4 ROUNDS	
AIM FOR THE TARGET Create a target in your house or outside using tape or other supplies. Goal is to land your plane as close to the target as possible.	HANG TIME Goal is to keep your plane in the air as long as possible. It doesn't matter what direction your plane goes. Have a timer handy.
ACCURACY Create a straight line in your house or outside (use a hose, tape measurer or other supplies). Goal is to fly and land your plane as close to the straight line as possible.	DISTANCE Goal is to fly your plane as far from the starting line as possible.
POINTS – 1 st place = 10 points, 2 nd place = 9 points, etc.	

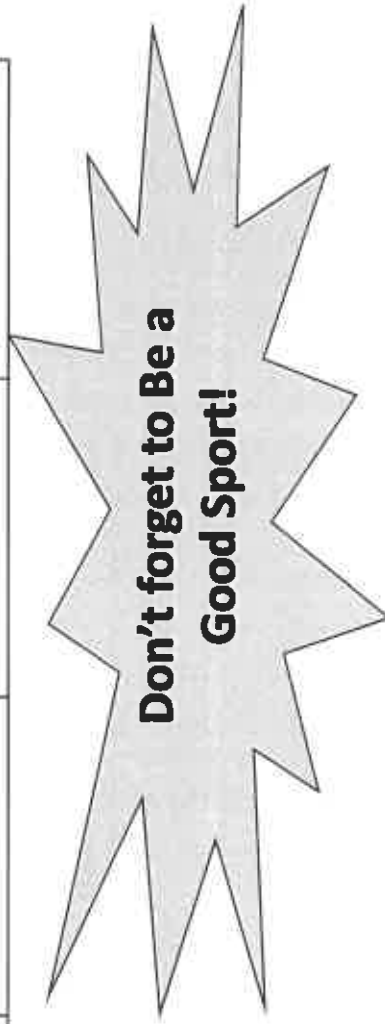
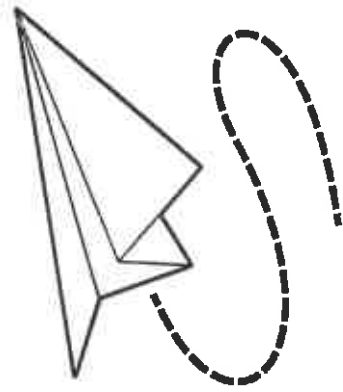
You can use 4 different planes (one for each round) or 1 plane for all rounds.

1. BUILD

2. PRACTICE

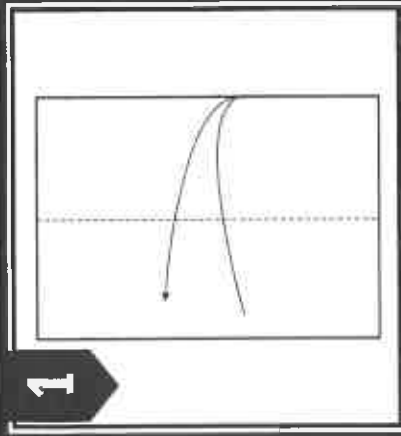
3. COMPETE

Competitor	Target Round	Hang Time Round	Accuracy Round	Distance Round	Grand Total Points



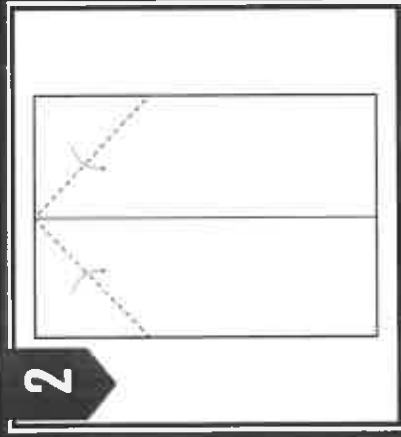
HOW TO FOLD A PAPER AIRPLANE

1



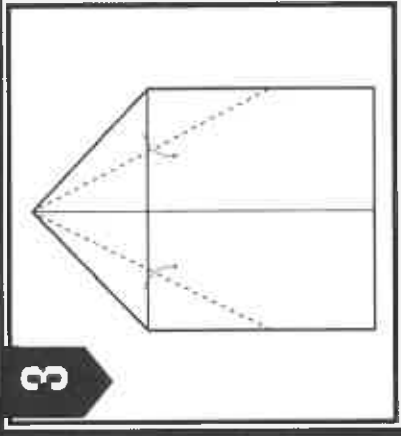
Fold the paper in half lengthwise and then open it back up

2



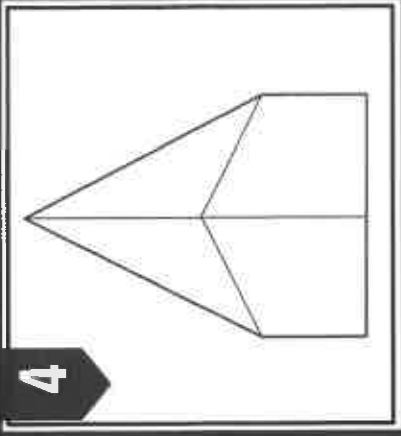
Fold inward along the dotted lines

3



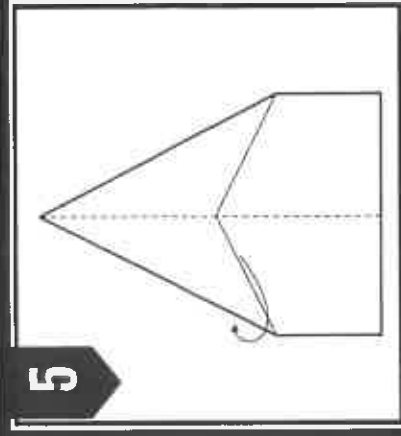
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4



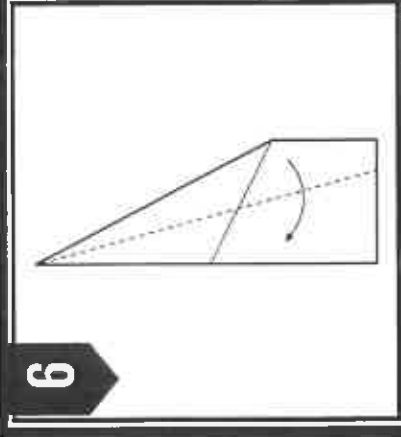
The paper airplane should look like this at this stage

5



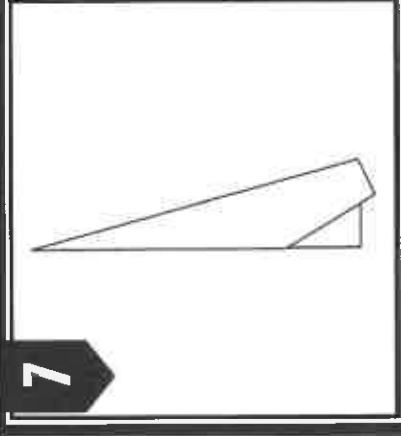
Fold outward along the dotted line

6



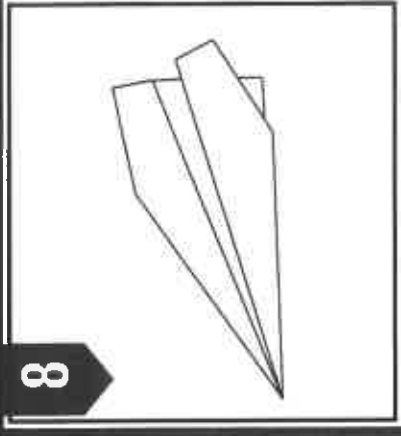
Fold inward along the dotted line

7



The paper airplane should look like this at this stage

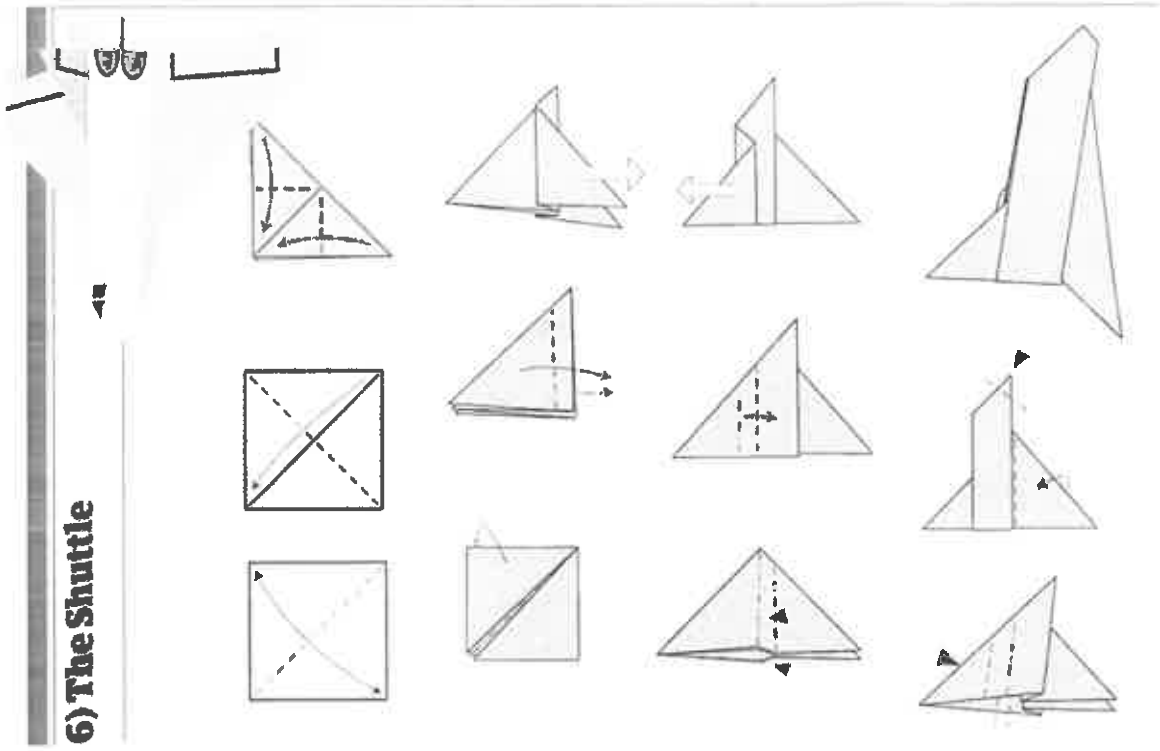
8



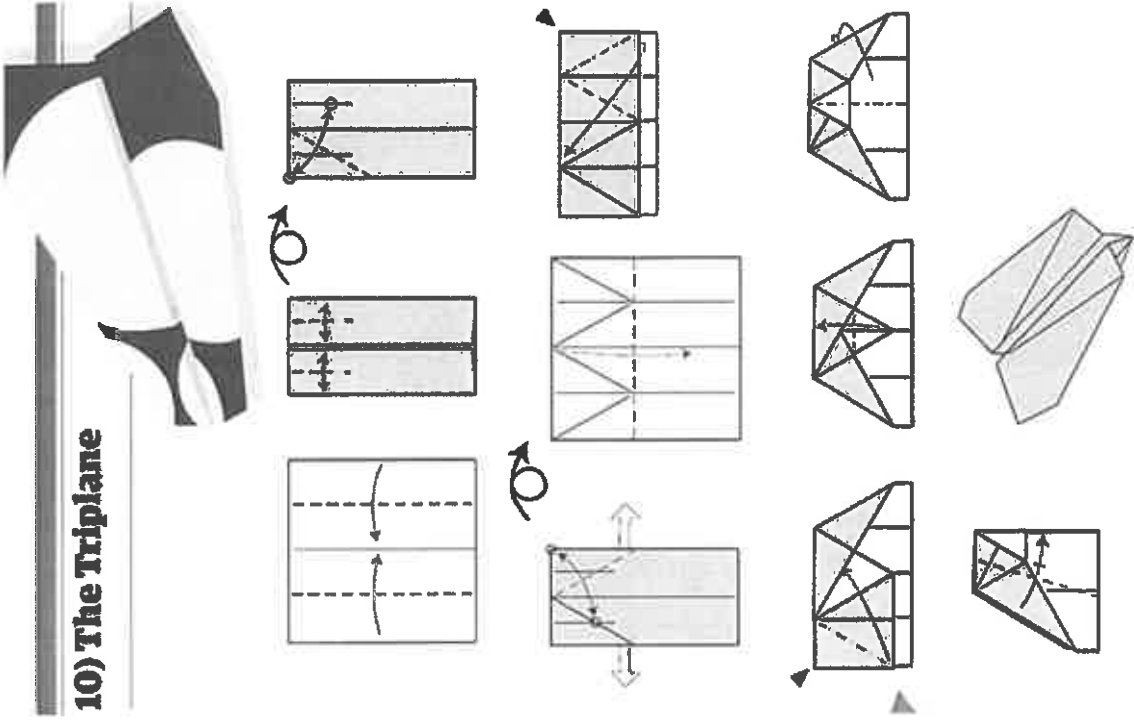
Unfold the paper airplane a little so that it floats when thrown

More difficult designs...

6) The Shuttle

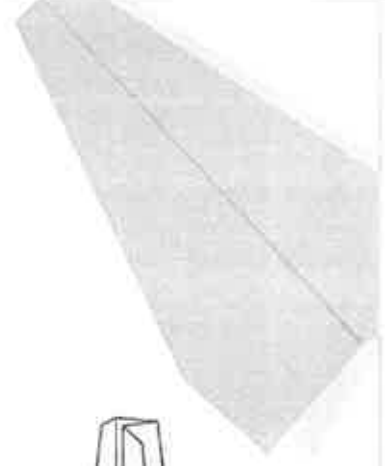
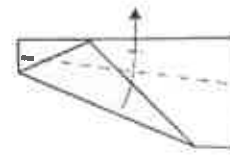
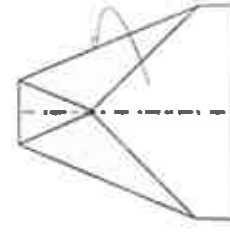
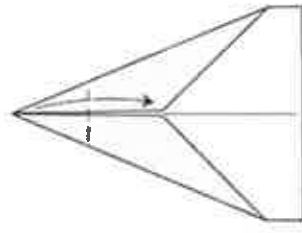
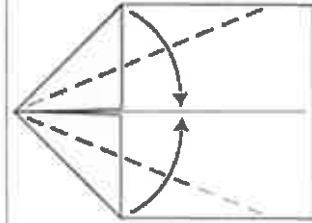
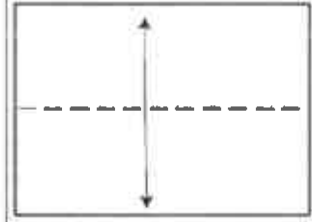


10) The Triplane



Or come up with your own!

1) Glider



2) Glider #2

