

RAF  
100



# PRIMARY

## Activity Book



# Happy Birthday!



The Royal Air Force or 'RAF' is  
100 years old in 2018.

It is the oldest airforce in the  
world. To help celebrate,  
they have produced this  
activity book for you.



ENGLISH



MATHS



SCIENCE

Look out for these - they  
tell you about the activity  
you are working on.



When you see this it means  
you can colour it in!





This is Penny and Peter, they are both pilots.  
Penny is a Jet pilot and flies a Typhoon.  
Peter is a helicopter pilot and flies a Puma.

Can you colour them in?

They'll be helping us with some of the activities in this book...





# Wordsearch



ENGLISH



Try to find the words below in the wordsearch box.  
Circle each word you find.

AIR

AIRCRAFT

AIRPORT

ENGINEER

FORCE

HELICOPTER

PILOT

REDARROWS

RUNWAY

SPITFIRE

TOWER



Can you help  
with these...



## Mixed Up Words

ENGLISH



The letters that make up these words have been mixed up and the RAF need your help to put them into the correct order to find the words.

LOTPI .....

CLUE: This person flies aircraft

NEERENGI .....

CLUE: Someone who repairs and builds things

WYANUR .....

CLUE: This is important to help aircraft take off

NIGW .....

CLUE: Part of an aircraft

FICRATF .....

CLUE: Another name for aircraft in the sky

ERPOCTILHE .....

CLUE: A type of aircraft

FFOEKAT .....

CLUE: Something an aircraft does to get into the sky

ANLDNIG .....

CLUE: How an aircraft returns to the ground

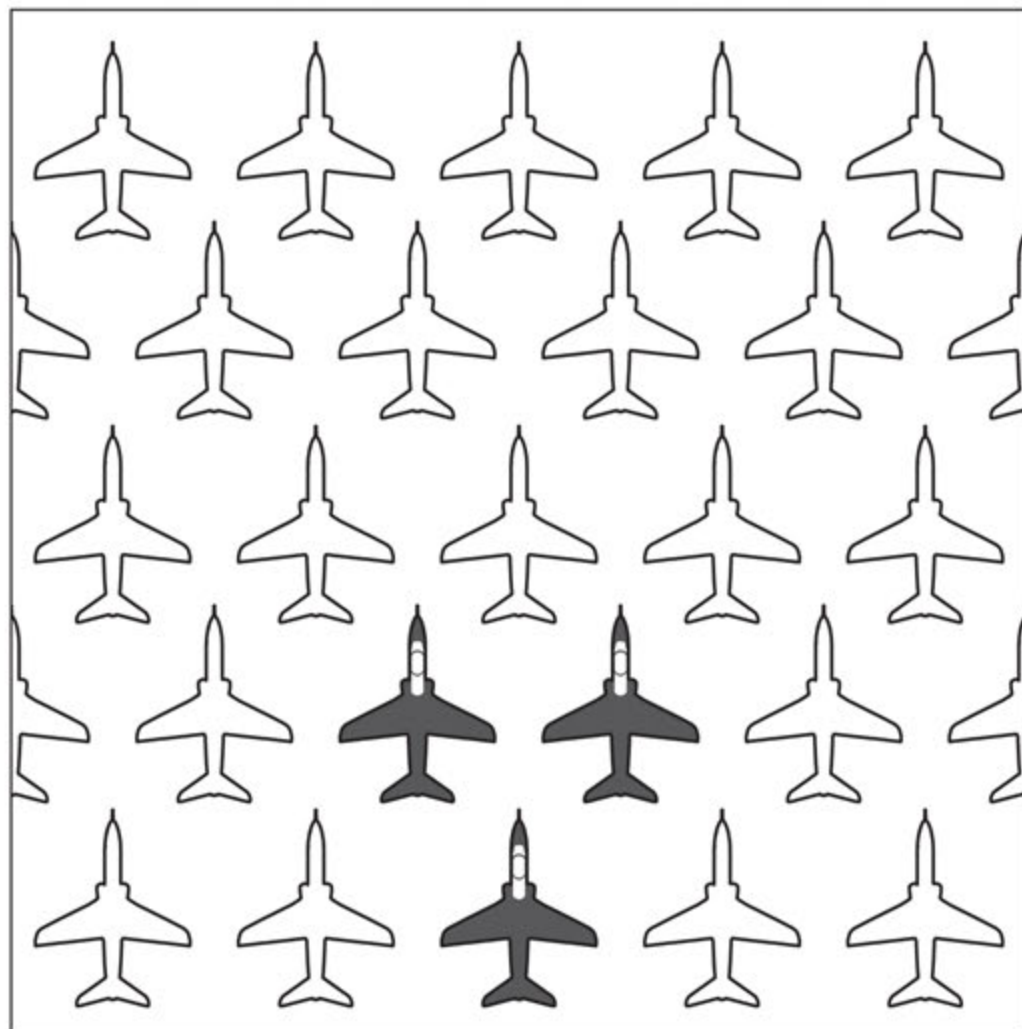






MATHS

# Missing Aircraft



Colour in the missing aircraft so that the Red Arrows can fly in a diamond shape.



**CLUE!**  
There are 9 aircraft  
in the Red Arrows.  
How can you add six  
aeroplanes to make  
them fly in a  
diamond shape.

# Missing Letters

ENGLISH

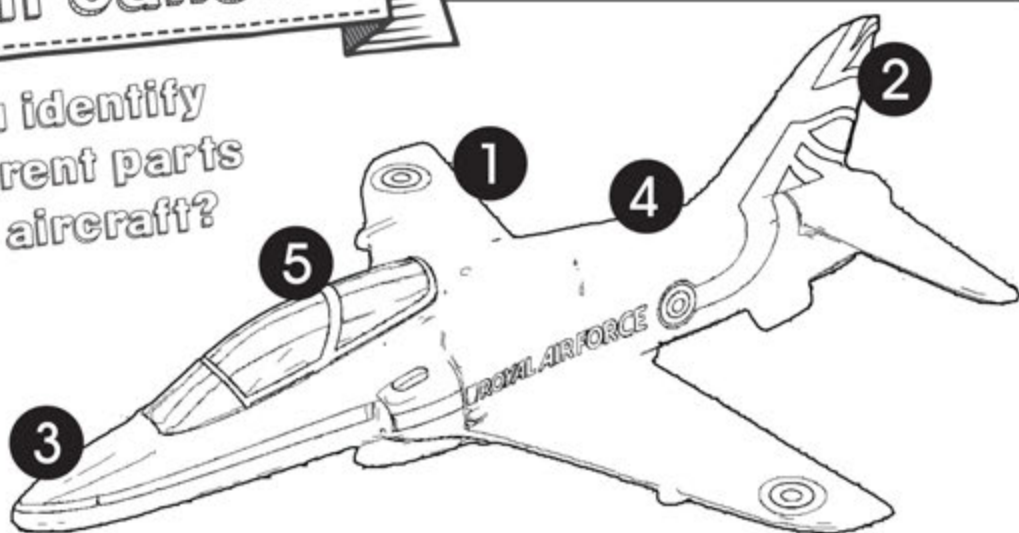
This is Angela, she flies aircraft for the Royal Air Force. Can you think of what her job is called and fill in the blank spaces?

P \_ L \_ T



## What's it called?

Can you identify the different parts of this aircraft?



Put the number next to the word:



NOSE



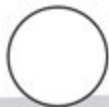
WING



COCKPIT



FUSELAGE



TAIL



# RAF Jobs

ENGLISH



Can you match the RAF job to the equipment used by drawing a line from the name to the right picture?

Radar Operator

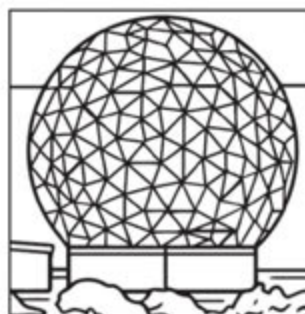
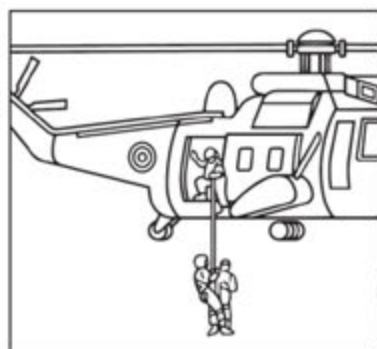
Pilot

Medic/Rescue

Computer Scientist

Communication Operator

Air Traffic Controller



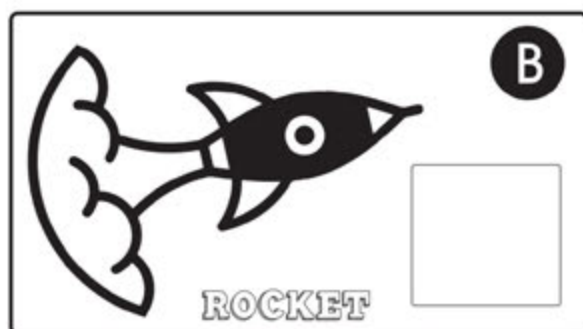
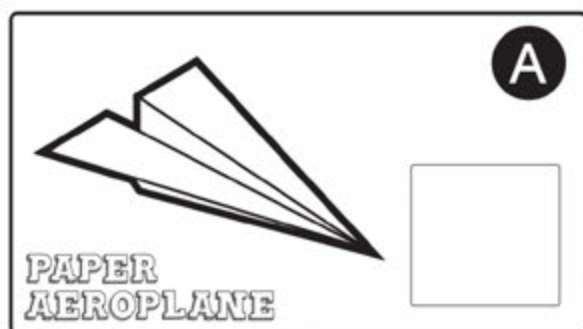




SCIENCE

# Furthest Distance

Which of these aircraft can travel the fastest?  
Place a tick in the box of the one that you think  
can travel the fastest.



Can you put them in order (ranging from those  
that can travel the slowest to those that  
can travel the fastest)

☐

This can travel the slowest

☐

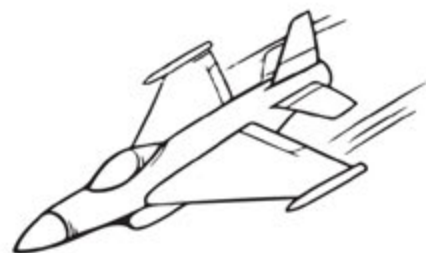
This can travel a bit faster

☐

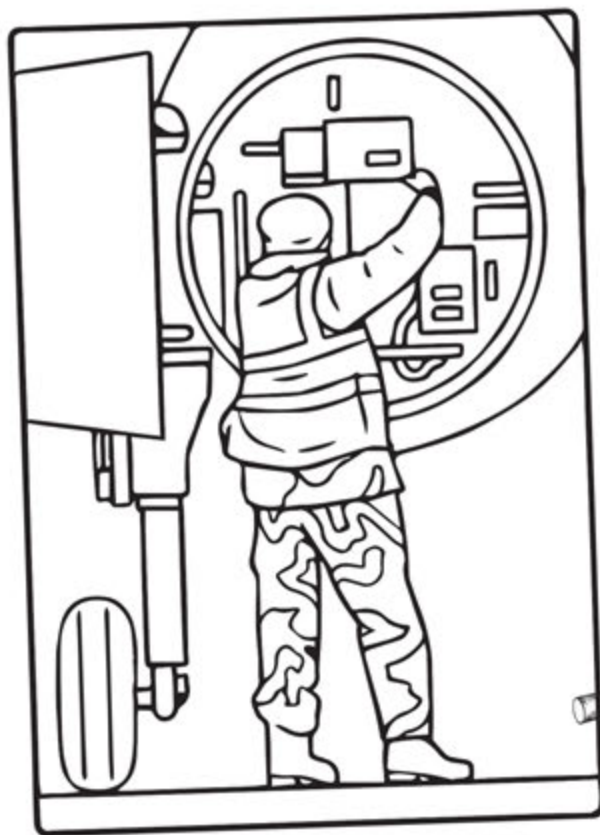
This can travel much faster

☐

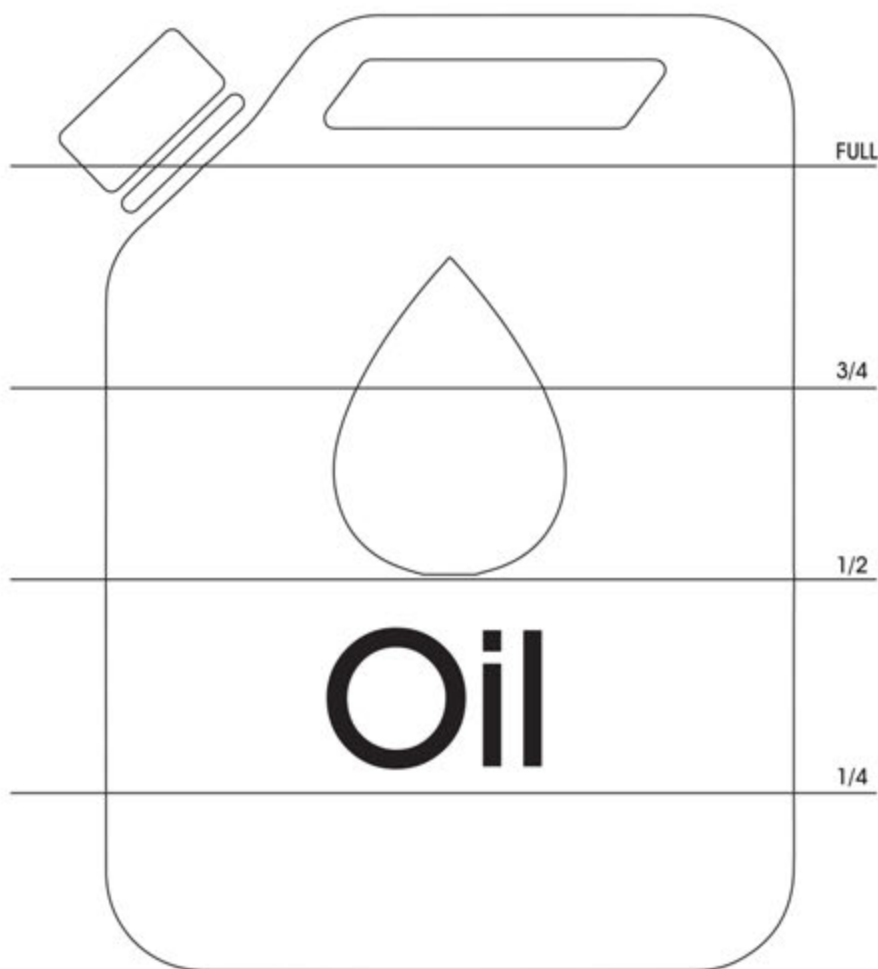
This can travel the fastest



# How Much Oil?



This RAF engineer has used one quarter of his can of oil when preparing an aircraft for flight. If the can was completely full before he started, can you shade in the area that is left?





# At The Airport



ENGLISH

The RAF use their own special airports to fly their aircraft.

They are quite similar to the ones people use when they go on holiday. Can you match the different pictures below to the right word?



Runway  
X-Ray  
Tickets

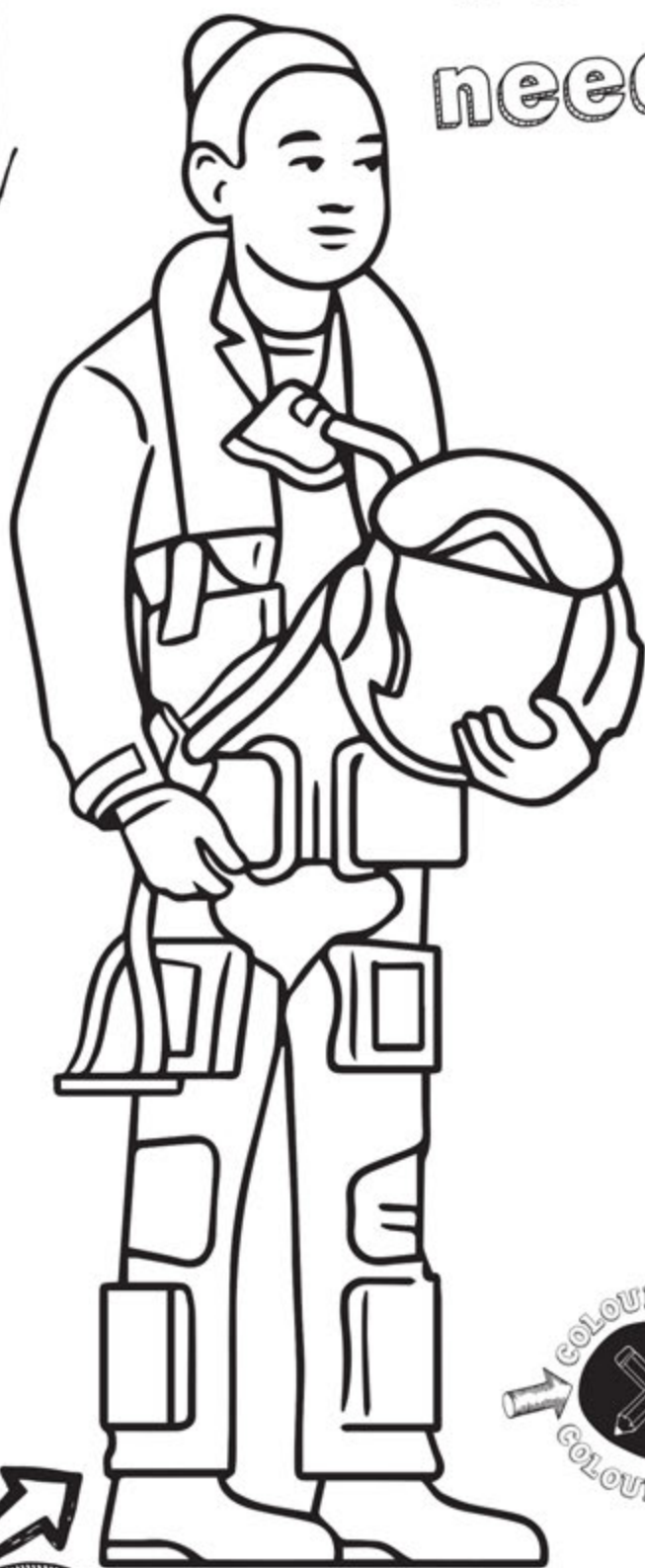
Control Tower  
Luggage  
Passenger

Aircraft  
Passport  
Radar



# Penny's Flight

Penny the pilot  
needs your help!



To make sure she has enough fuel to fly on her mission her fuel tank must be  $\frac{4}{5}$ ths full.

Can you tell her which aircraft to take by looking at their fuel gauges here?





A:



B:



C:



D:



E:



Write the letter in this box of the aircraft that Penny should take (the one that shows that it is  $\frac{4}{5}$ ths full of fuel)

# Transporting Food



The aircraft below is carrying food supplies.  
If it can carry enough food to feed 320  
people, how many aircraft will we need to  
make sure that 1,000 people can be fed?



1



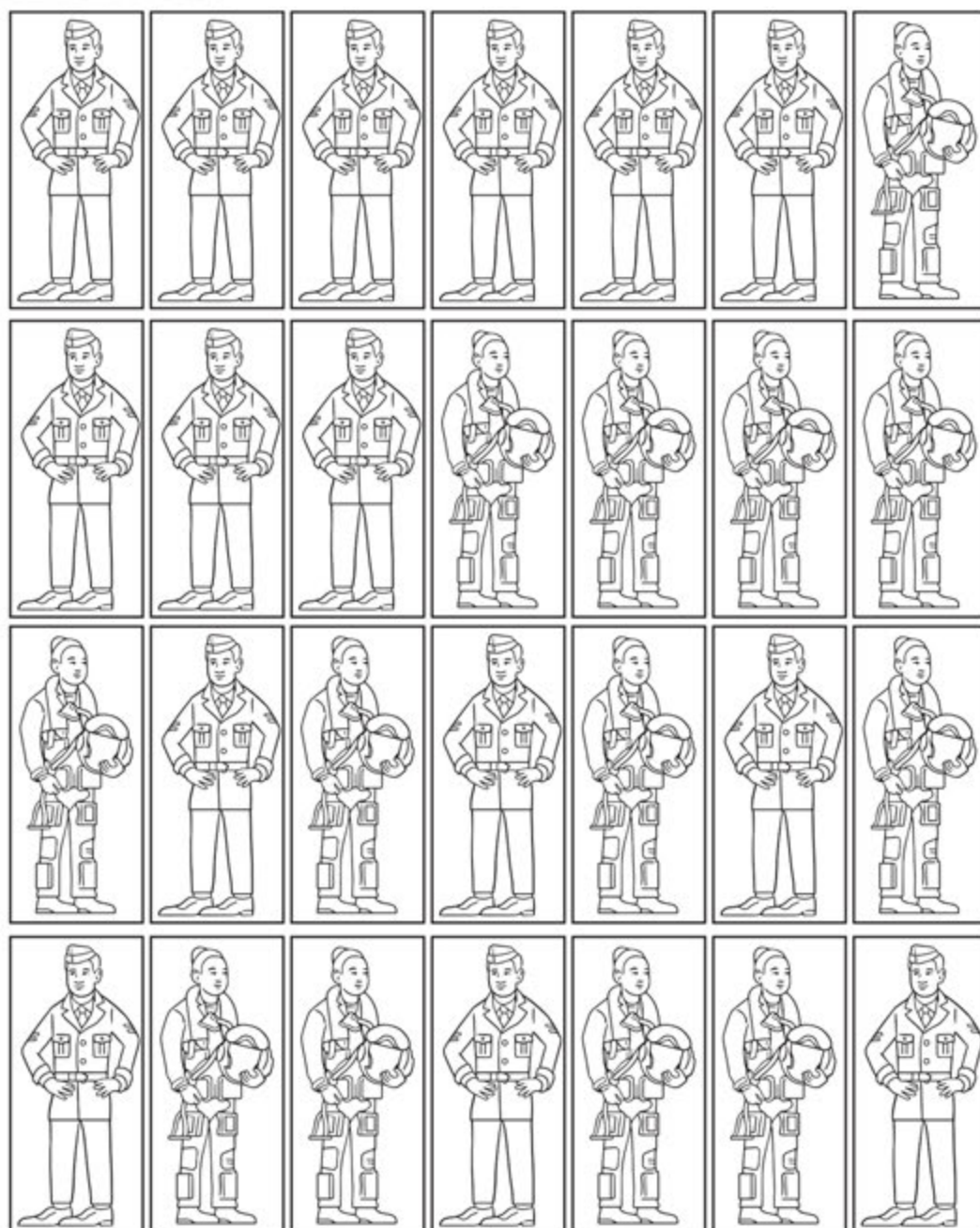
= enough food for 320 people!

Write in this box how  
many aircraft we will  
need to make sure we  
can feed 1,000 people



# RAF Pilots

Can you count how many RAF  
pilots are in this picture?  
Write the total number in the box



Total  
number

How many of the Pilots are Women?

How many of the Pilots are Men?

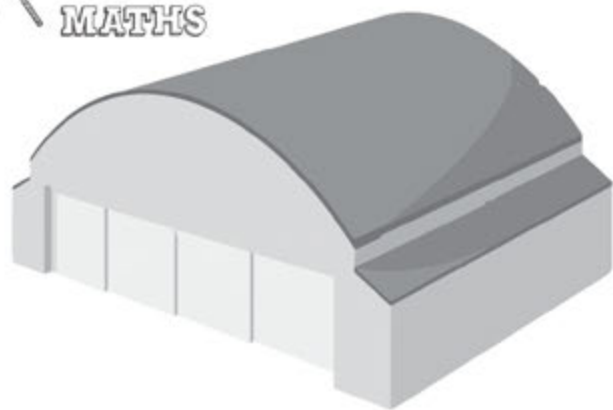
If half the Pilots were Women,  
how many would there be?





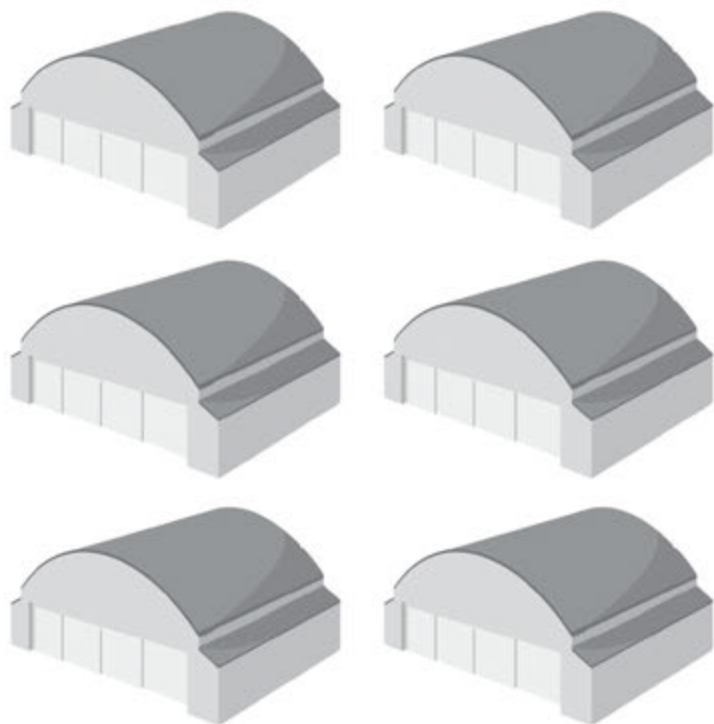
MATHS

# Homes for Helicopters



This is an aircraft hanger - it is where helicopters are stored when they aren't being used.

Each of the aircraft hangers in the picture below can hold 4 helicopters, are there enough hangers for all of the helicopters in the picture?



Write in this box the total number of spaces in the hangers

Write in here whether you think there are enough hangers for the helicopters ('Yes' or 'No')



# Soft Surfaces



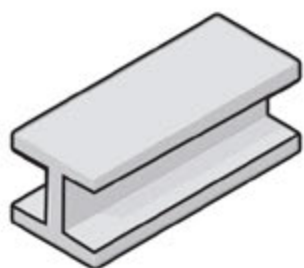
Runway surfaces are hard (like roads) which makes it easy for aircraft to land on them. Can you tell which from the list below is a hard substance or material and which is soft?



**A: ROCKS**



**B: SAND**



**C: METAL**



**D: SOIL**



**E: JELLY**

Write in this box which surfaces are soft:

Write in this box which surfaces are hard:

Which could you land an aircraft on?



# Code Breaker



## CODE 1

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A	B	C	D	E	F	G	H	I	J	K	L	M

## CODE 2

A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
M	L	K	J	I	H	G	F	E	D	C	B	A

## CODE 3

A	B	C	D	E	F	G	H	I	J	K	L	M
A	J	S	B	K	T	C	L	U	D	M	V	E

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
N	W	F	O	X	G	P	Y	H	Q	Z	I	R

You will need to use all your skills as code breakers to crack the code.

Use the appropriate code to work out these RAF words



CODE 1

U	R	E	P	H	Y	R	F

CODE 2

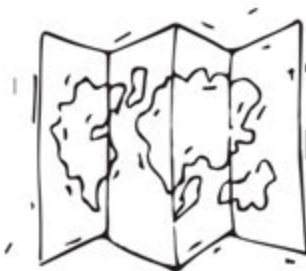
G	B	K	S	L	L	M

CODE 3

Z	I	N	O	A	U

CODE ?

Z	N	B	Q	L	S	M	H	L	M



## Code Maker

Use the codes to encrypt (code) the words below

CODE 1

P	I	L	O	T

CODE 2

H	E	L	I	C	O	P	T	E	R

CODE 3

S	P	I	T	F	I	R	E

⋮  
⋮  
⋮  
⋮  
⋮  
⋮  
⋮  
⋮  
⋮  
⋮



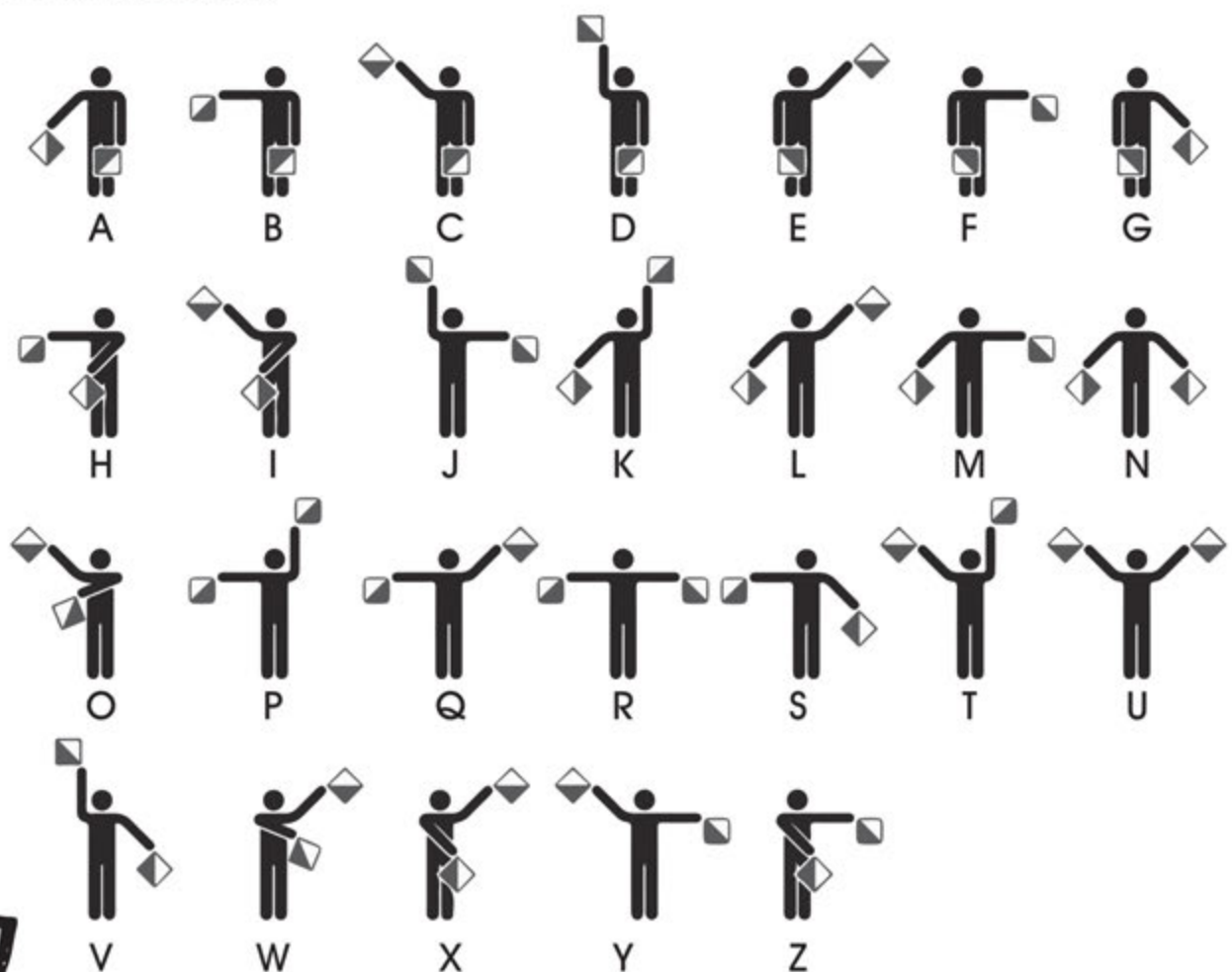
# Coding With Flags

## Semaphore

MATHS

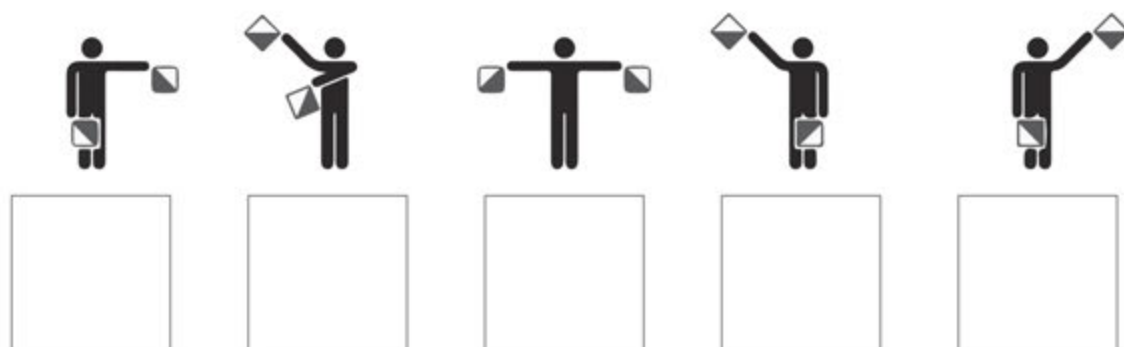
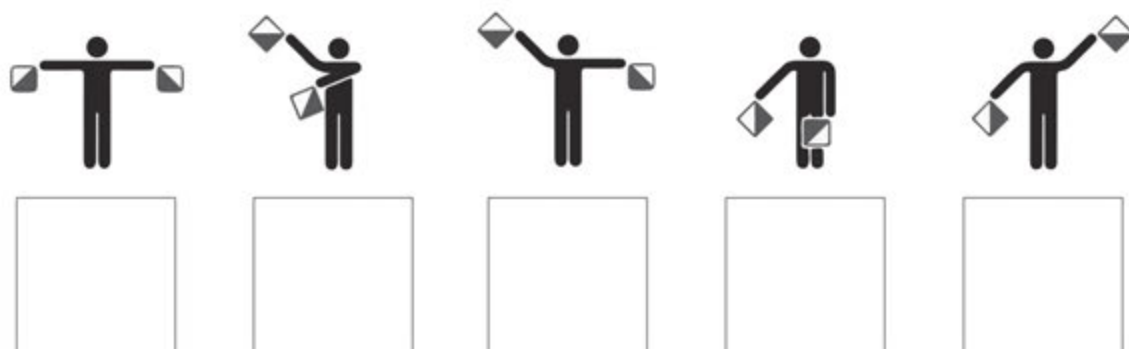
Semaphore is a system of sending messages by holding the arms or two flags or poles in certain positions according to an alphabetic code. It is really useful when you want to send a message to someone who is too far away to hear you.

Each letter of the alphabet has a particular code, as shown below





Using the semaphore code, can you tell what the message is?  
Write out each letter to spell the message.



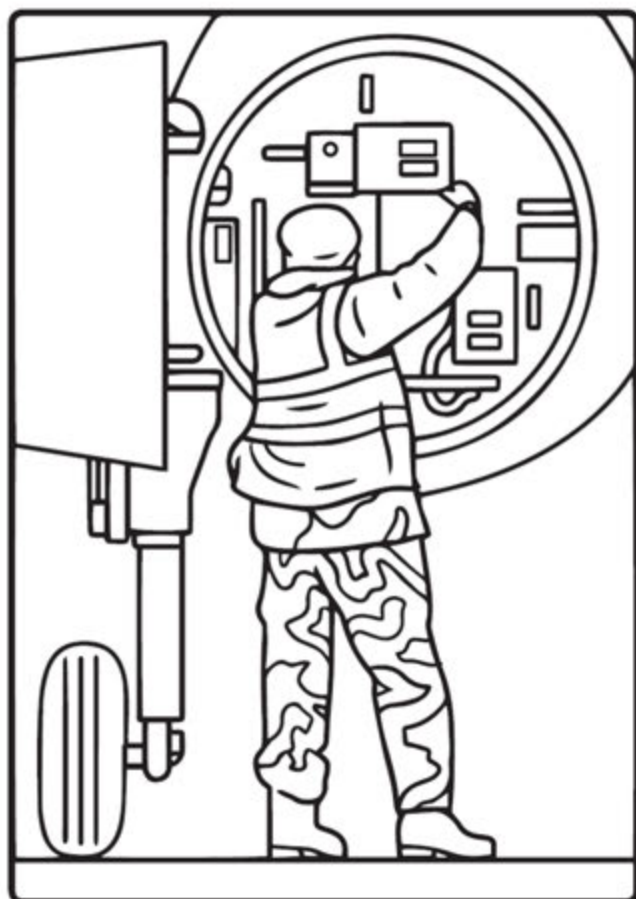
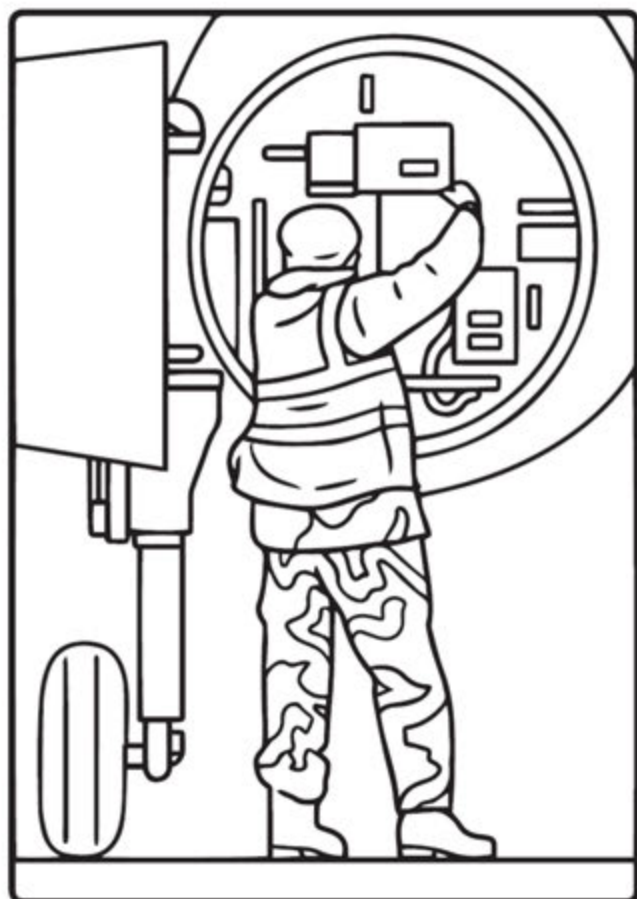
.....



MATHS

# Spot the Difference

Can you find the differences between the two pictures?



Circle the differences you find here.



**CLUE!**  
There are 6  
differences  
to find





# Sharing



It's Penny the Pilot's birthday and she wants to share her birthday cake with as many people as possible. It has already been cut into slices.



Number of slices:

Number of people who can have a slice of cake each:

If Penny decided that each person can have two slices of cake each, how many people can have some cake? (clue: you will need to work out how many times you can count two slices in the cake).

Number of times you can count two slices:

Number of people who can have two slices each:

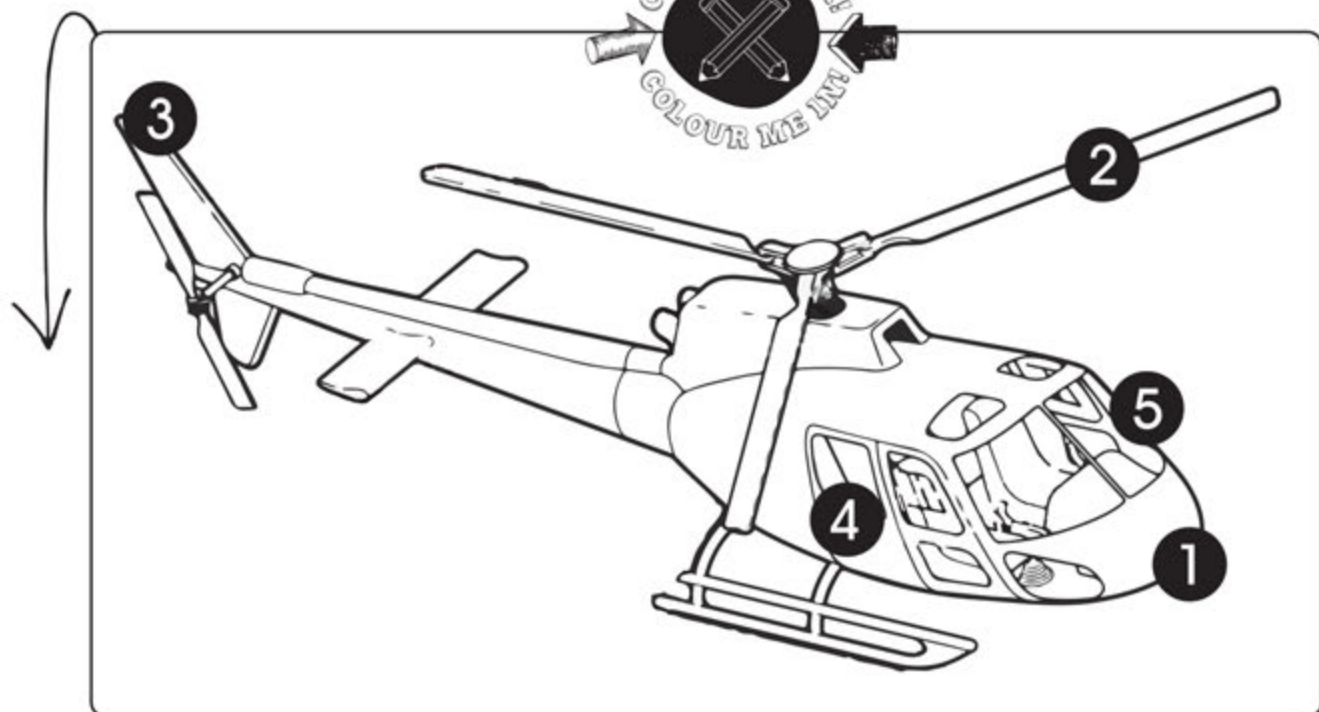




# What's it Called?



ENGLISH



Peter the Pilot wants you to help him to identify the different parts of this helicopter?  
Put the number next to the word:

- ☐ BLADES/ROTORS
- ☐ WINDSCREEN
- ☐ WINDOW
- ☐ NOSE
- ☐ TAIL





## Penny the pilot needs your help!

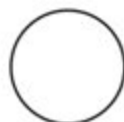


Can you identify from the description, which aircraft she is describing?

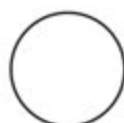
Put the correct letter next to each aircraft.

**A:** A powered flying vehicle with fixed wings.

**B:** A type of aircraft in which lift and thrust are supplied by rotors



HELICOPTER



AEROPLANE



















































































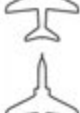





















# Penny & Peter's Busy Week



On Monday Penny flew 3 times in her jet aircraft. Peter flew twice in his helicopter on Monday. They have completed the chart for Monday (by colouring in the number of aircraft). Can you complete the rest of the chart for them using the information they have provided?

10	 	 	 	 	 
9	 	 	 	 	 
8	 	 	 	 	 
7	 	 	 	 	 
6	 	 	 	 	 
5	 	 	 	 	 
4	 	 	 	 	 
3	 	 	 	 	 
2	 	 	 	 	 
1	 	 	 	 	 
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	Penny = 3 FLIGHTS Peter = 2 FLIGHTS	Penny = 2 FLIGHTS Peter = 3 FLIGHTS	Penny = 4 FLIGHTS Peter = 2 FLIGHTS	Penny = 1 FLIGHTS Peter = 5 FLIGHTS	Penny = 5 FLIGHTS Peter = 3 FLIGHTS

Can you write in this box the total number of times Penny the Pilot has flown her aircraft this week?

Can you write in this box the total number of times Peter the Pilot has flown his helicopter this week?





MATHS

# Spot the Difference

Can you find the differences between the two pictures?



Circle the differences you find here.



**CLUE!**  
There are 6  
differences  
to find

## More coding with flags

# Semaphore



You will need to look back at the codes for semaphore on page 20. All the letters are here to spell something about the Royal Air Force but they aren't in the right order! Using the codes for semaphore can you write out the letters and re-arrange them to spell the message?



# Lighting Up!



SCIENCE

Peter the Pilot says it is very important that he can see where he is flying in his aircraft – so his lights are really useful.

Can you identify the sources of light in the picture below by matching the picture to the word?

Matches

Star

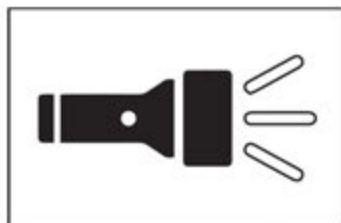
Candle

Lamp

Torch

Fire

Light bulb



Can you write here which ones use electricity to generate light?

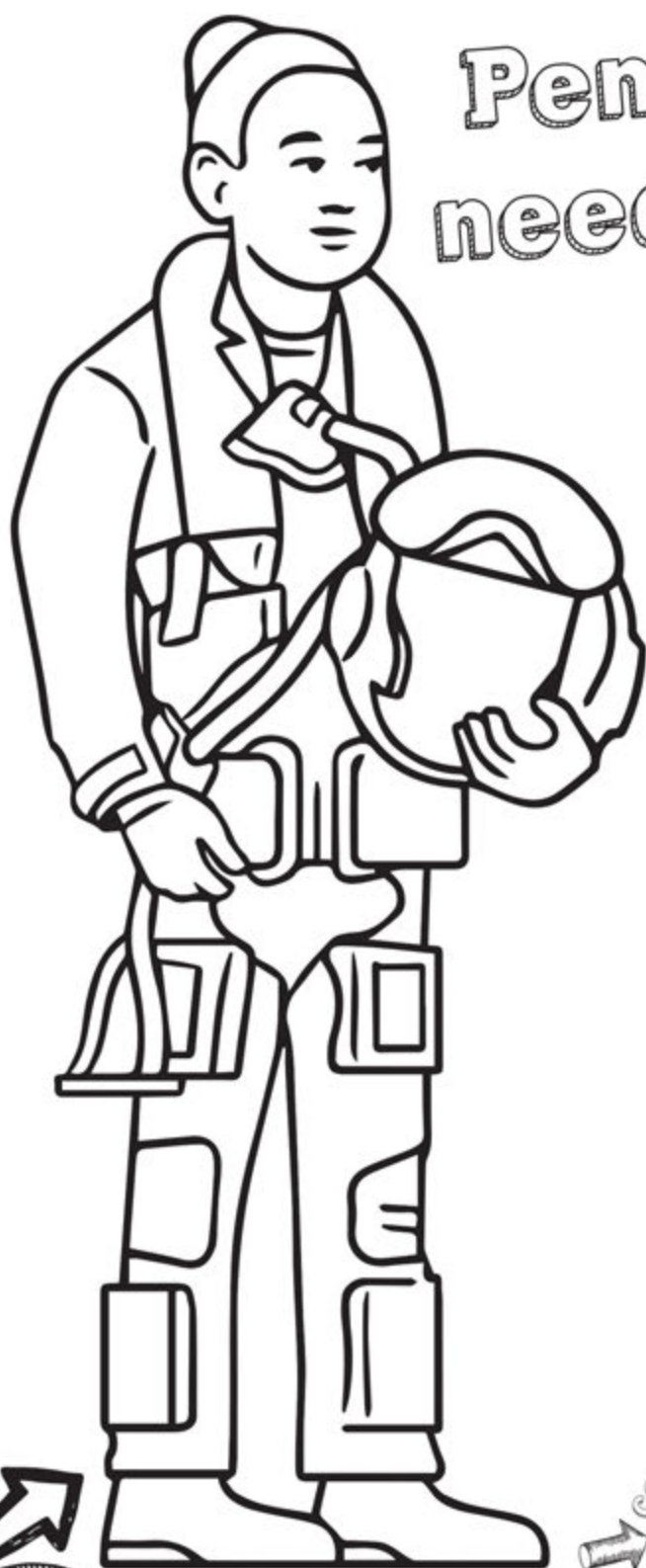




## Flying High



### Penny the pilot needs your help!

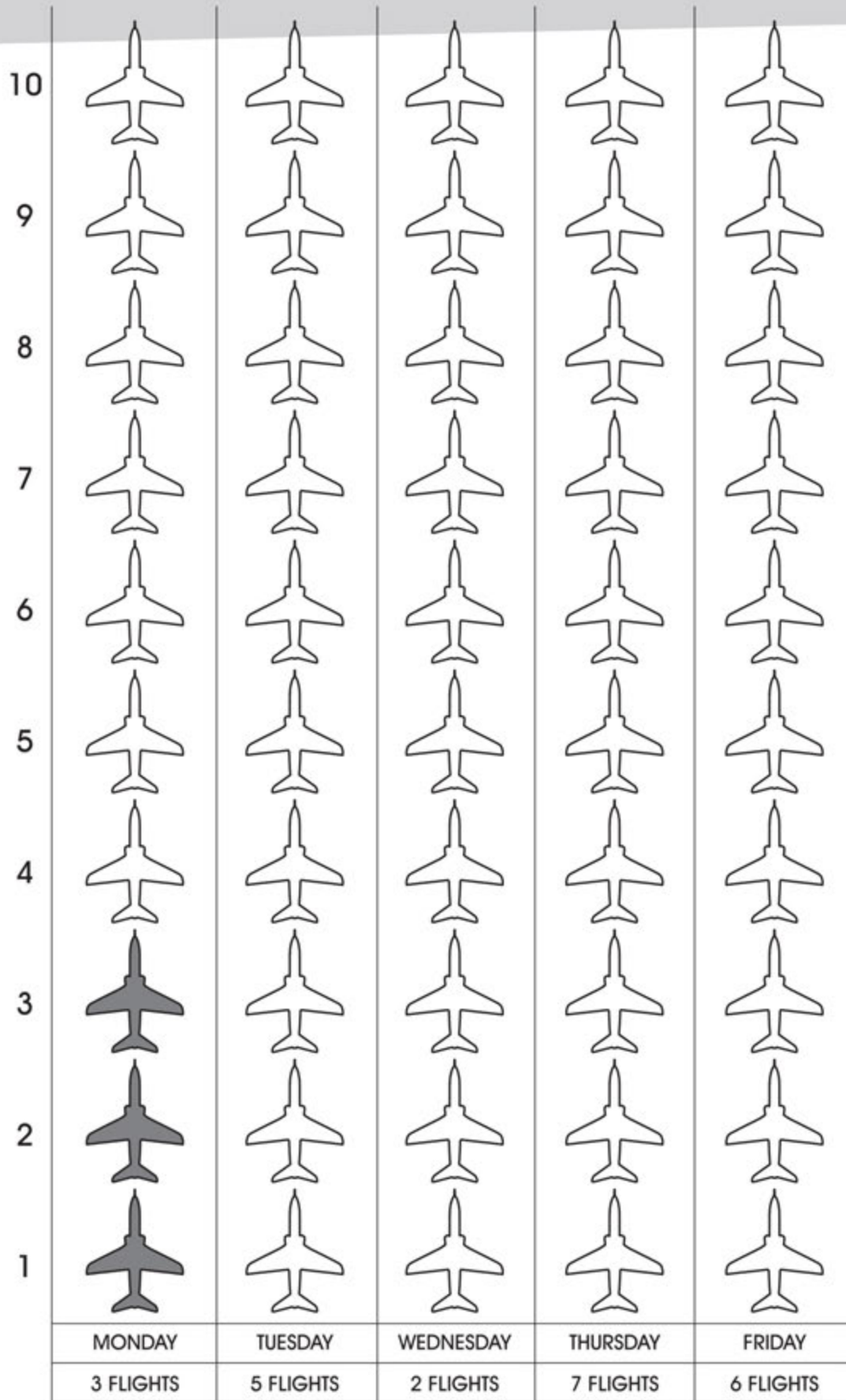


She needs to produce a chart showing how many times she flew her aircraft during the week.

On Monday she flew 3 times and has completed the chart for Monday (by colouring in the number of aircraft).

Can you complete the rest of the chart for her using the information she has provided?





Can you write in this box the total number of times Penny the Pilot has flown her aircraft this week?




## Did you know?





There are  
more than 50  
RAF stations  
in the UK.



The RAF will be  
100 years old in  
April 2018!



The RAF's biggest  
aircraft is the Voyager.  
It can carry 291 people  
and can fly 6,000 miles  
on one tank of fuel!



The first female  
jet pilot was Jo  
Salter who started  
flying jets for the  
RAF in 1992!



Scan this QR code to access our  
fantastic colouring wall showing the  
history of the first 100 years of the RAF



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to find out more  
about the RAF!