

# BATCH VS FLOW

## PAPER AEROPLANE

### TEACHES

IMPORTANCE OF FLOW AND HOW MUCH IT CAN CHANGE PRODUCTION TIMINGS

### TO SET UP

6 SHEETS OF A4 PAPER

SURFACE TO FOLD THE PLANES ON

STOP WATCHED (PHONES)

TEMPLATE OF HOW TO MAKE A PAPER AEROPLANE

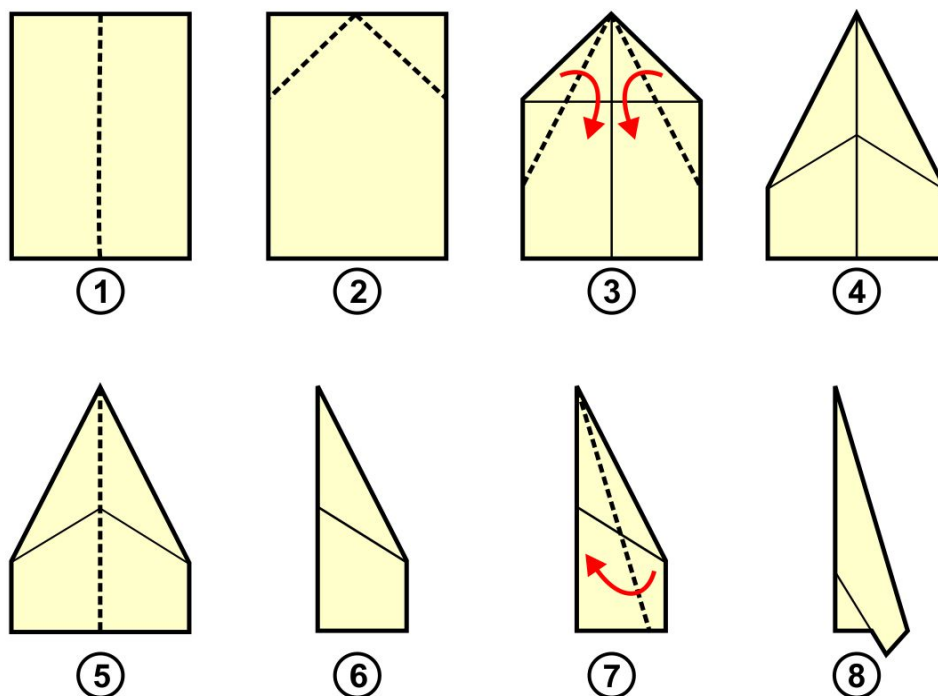
### INSTRUCTIONS

SPLIT YOURSELVES INTO 3 TEAMS

TEAM 1 = HAS TO BE 5 PEOPLE

TEAM 2 = NEED STOPWATCHES OR PHONES TO TIME

TEAM 3 = 2 PEOPLE



## **PART 1 = BATCH**

**TEAM 2, TIMES THE FOLLOWING TEAM FROM START TO FINISH**

**TEAM 1, MAKE 3 PLANES VIA BATCH METHOD.**

- FIRST PERSON FOLD THE PAPER IN HALF ONCE ENSURE ALL PLANES 3 ARE FOLDED, PASS TO YOUR NEXT TEAM MEMBER.
- SECOND TEAM MEMBER FOLD DOWN THE TOP TWO CORNERS OF THE THREE PLANES, PASS TO YOUR NEXT TEAM MEMBER.
- TEAM MEMBER 3, WHERE THE NOSE HAS BEEN MADE, FOLD TWO CORNERS DOWN TO MAKE THE PAPER AEROPLANE 'TRIANGLE', PASS TO YOUR NEXT TEAM MEMBER.
- TEAM MEMBER 4, FOLD THIS IN HALF FOR ALL 3 PLANES, PASS TO YOUR NEXT TEAM MEMBER.
- TEAM MEMBER 5 FOLD THE CORNERS DOWN AS PICTURED IN STEP 7 FOR ALL 3, SHOUT STOP

TEAM 2, TO ADVISE THE TOTAL TIME TAKEN

**Q. WHICH WASTES DID TEAM 1 SUFFER?**

RESPONSES SHOULD BE...

**MOTION** - FOLDS WERE ONE AT A TIME BEFORE MOVING TO THE SECOND

**WAITING** - TEAM MEMBERS ARE WAITING

**TRANSPORTATION** - WHEN THE TEAM MEMBERS WERE DONE THEY HAD TO MOVE THE PLANES

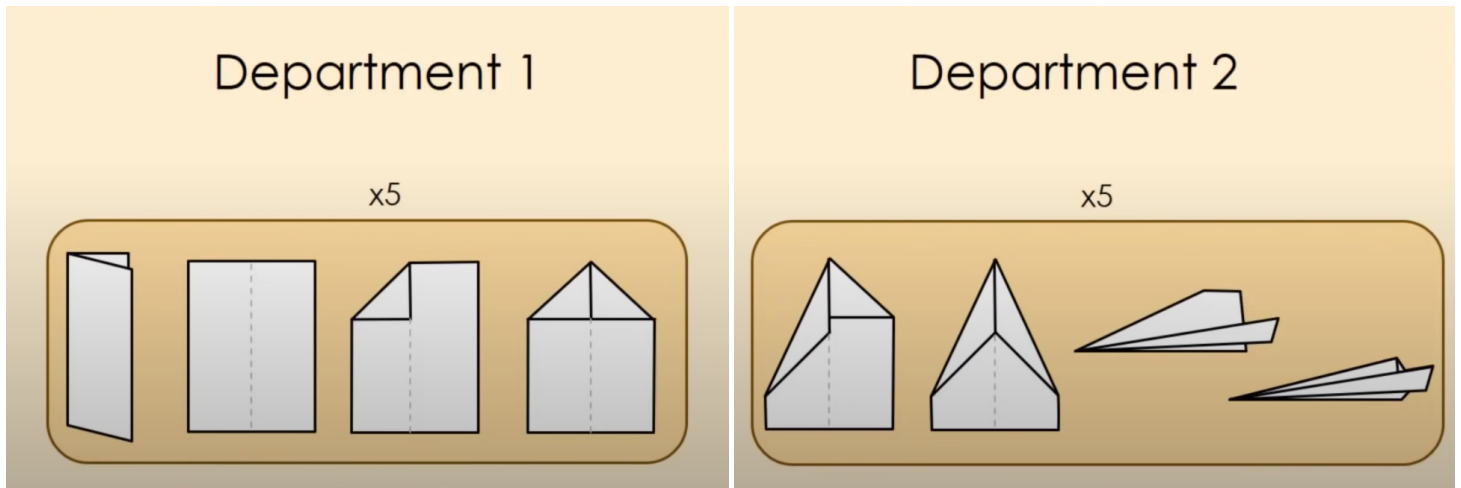
**INVENTORY** - REQUIRE SPACE FOR THREE AEROPLANES AT ONE TIME

**DEFECTS** - NOT ALL EXACTLY THE SAME

## PART 2 = FLOW

TEAM 2, TIMES THE FOLLOWING TEAM FROM START TO FINISH

TEAM 3, FLOW TO THE NEXT TEAM MEMBER AS SOON AS YOUR FOLDS ARE DONE



### ONE PLANE AT A TIME

- FIRST PERSON, FOLD THE PAPER IN HALF ONCE, FOLDS DOWN THE TOP TWO CORNERS AND PASSES TO THE NEXT PERSON
- SECOND PERSON, FOLD TWO CORNERS DOWN TO MAKE THE PAPER AEROPLANE 'TRIANGLE', FOLD THIS IN HALF THEN FOLD THE CORNERS DOWN (COMPLETE THE PLANE)
- SHOUT STOP WHEN FINISHED

TEAM 2, TO ADVISE THE TOTAL TIME TAKEN

WHAT'S THE TIME DIFFERENCE FROM BATCH VS FLOW?

### Q.WHAT DID THIS EXERCISE SHOW?

- BENEFITS OF FLOW RATHER THAN BATCH
- RESOURCES IN THE BATCH PROCESS ARE IDLE HALF OF THE TIME
- BENEFITS OF REDUCING BATCH SIZE COME FROM THE REDUCED WIP AND/OR TAKT TIME
- FLOW ALLOWS US TO WORK WITH FLEXIBILITY AND IMPROVE ON THE DOT