

Lopez Paper Airplane Designs

Objective: Teaching About the Assembly Line and Factory Life – Paper Plane Activity

During the Industrial Revolution there was a transition from a cottage style system to a factory system with the popularization of the assembly line. This paper plane activity will help teach this concept.

To start, the teacher will tell the students that they will be "manufacturing" paper planes. However, they will be doing this in two separate ways and as such they will be divided into two groups. The first group will work as a factory assembly line. There will be a boss and the rest of the students will have a position in an assembly line where they will produce paper planes. The second group will be working as a cottage industry to create paper airplanes.

After this explanation, the teacher needs to split the class into two even groups and give each group paper (make sure to use used/to be recycled paper to save the trees!). The factory group must assign a boss and the boss will be given a paper planes instruction sheet with the steps need to be taken to make the planes. The boss will then line his/her peers up and assign each step to a student. For example, one student will make the first fold and then pass it on to the next student to make another. The boss is encouraged to monitor his/her "employees" to make sure that the paper planes are all similar, as mass produced products are and he/she is allowed to fire and pressure students to work harder and faster.

In the cottage group, students will create paper planes using the same instructions, but will do so independently. Both groups will make planes for 10-15 minutes. After, the students will be asked to stop and present the planes to the teacher. The teacher will count how many each group has made and showcase the planes made by each group. The factory group should have made significantly more than the cottage group, but the cottage group will have more creative and a more high quality product. With these conclusions, the teacher can go on to teach students what it was like to work in a factory and relate it back to the activity that the students participated in.

Something to watch out for: While making paper planes, students might be tempted to fly them. To curb this temptation the teacher can tell them they have the opportunity to fly them at the end of class. During the last few minutes of class, the teacher can take them outside to fly the planes and then they can recycle them or put them away.

* The cottage style workers will make planes independently. They will use plain white printer paper, and then decorate the planes. Their object is creativity.

* Assembly line workers will be folding the planes from a template. Their object is quantity and similarity.

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Instructions

Activity will be in the lunch room

<http://www.youtube.com/watch?v=VcihQSJyeik&feature=related>

Cottage Style:

Work in groups of 4 making paper airplane designs.

Assembly Line: 2 lines

Boss Mr. Lopez

- 1. Paper handler**
- 2. Fold design in ½ >>>> Fold design in ½ again. Pass design face down.**
- 3. Fold both corners >>>> Fold both corners again.**
- 4. Fold nose down at fold line >>>>> pass face down.**
- 6. Fold design in ½ >>>>> Fold down wings at the fold line >>> Repeat on other wing.
*(Press folds only along fuselage & nose, not along wings).***
- 7. Stack / 10 per tub**