PROJECT Nº 1

Paper Airplanes

SUPPLIES NEEDED

ADVENTURE TAKES FLIGHT

AMA Junior CAMP

8.5” X 11” PAPER
PAPER CLIP

AUTHORIZED AMA STE(A)M PROGRAM
INFO FOR PARENTS:
Parents can guide the student through the project themselves, complete the project with the aid of live AMA instruction, or use both.

GOALS & OBJECTIVES
Question: What will children know and be able to do as a result of this project?
Answer: Follow written and spoken instructions

ENGAGE WITH BOTH FINE & GROSS MOTOR SKILLS
Fine Motor Skills: Children will be able to refine their folding and measuring ability through the construction of the paper airplane.
Gross Motor Skills: Children will be able to refine their object control skills through the act of flying the airplane in a controlled and calculated manner.

EXHIBIT CREATIVITY THROUGH ARTISTIC EXPRESSION
Children will have the opportunity to decorate their paper airplane through various media such as stickers, markers, color pencils, and crayons.

DETERMINE CAUSE & EFFECT
Children will have the opportunity to better understand how each step of building the paper airplane will determine its success as a flying object.

Question: What prior knowledge do children need to have to successfully complete this project?
Answer: It would be helpful, but not required, if the student...
1. has some prior exposure to papercrafts of some kind.
2. has some knowledge of airplanes.
3. has some prior understanding of flight.

FOLDING THE PAPER AIRPLANE
Numbers on template correspond to the instructions below!
1. Start by folding the paper vertically creating a valley that hides the AMA Jr. Camp logo. Unfold and flatten the paper.
2. Fold down the top two corners to the center of the paper so it resembles a house.
3. Turn the paper over and fold down the pointed top at the horizontal dotted line.
4. Fold along the original “valley” fold so the AMA Jr. Camp logo is hidden.
5. Fold down the first set of dotted lines.
6. Fold down the wings on the dotted lines so you can see the AMA Jr. Camp logo.
7. Place a small piece of tape near the nose to keep the airplane all together. You can also attach a paperclip to the nose to add weight.
8. To fly, hold the airplane underneath the wings by pinching where the triangle is folded. Hold it roughly at shoulder height and toss gently forward.

A BRIEF HISTORY OF PAPER AIRPLANES
It is unknown when the first paper airplane was made; however, many scholars suspect that the Japanese art of paper folding, also known as origami, which closely followed the invention of paper in China in 500 BCE, inspired some of the first paper airplane designs.

Many of the early aviation pioneers utilized paper models in their pursuit of flight, including Leonardo da Vinci, Sir George Cayley (the first person to recognize and identify the four forces of flight), and the Wright brothers.

The first modern paper airplane, as we would recognize it, was designed by Jack Northrop (cofounder of the Lockheed Corporation), who used paper planes as test models for larger aircraft.

CHALLENGES
Create a target on the floor using painter’s tape and try to land your airplane within the “landing zone!”
Trace different size plates on a poster board and cut out the circles to create different size targets to fly through! Hang your board from the ceiling or have somebody hold it up for you.
Fly your planes down a long hallway or corridor in your house. Using a measuring tape, determine who flew the farthest!

BE CREATIVE
Decorate your airplane using markers, crayons, colored pencils, stickers, and more! Not sure how you want your airplane to look? Check out the National Model Aviation Museum’s Digital Collections to get inspired by visiting collections at www.modelaircraft.org!

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