PROJECT № 3

Rocket Mouse

SUPPLIES NEEDED

THESE INSTRUCTIONS
TISSUE PAPER
GLUE OR TAPE
SCISSORS
YARN

AUTHORIZED AMA STE(A)M PROGRAM
INFO FOR PARENTS:

Parents can guide their child 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 use of scissors and simple building methods through the construction of Rocket Mouse. Children will also be able to refine their hand-eye coordination through the act of clapping (launching Rocket Mouse).

Gross Motor Skills: Children will be able to refine their ability to judge height and distance by observing the “flight path” of Rocket Mouse.

EXHIBIT CREATIVITY THROUGH ARTISTIC EXPRESSION

Children can have the opportunity to decorate their Rocket Mouse through various media. If extra tissue paper, yarn, or markers are available, encourage the child to utilize these materials to express their creativity.

DETERMINE CAUSE & EFFECT

Children will have the opportunity to better understand how the force of their clapping relates to the speed, height, and distance of Rocket Mouse’s “flight path.”

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. The child has some prior exposure to arts and crafts of some kind
2. The child has some prior knowledge of rockets
3. The child has some prior understanding of space travel

Question: What are some guiding questions for this project?
Answer: Guiding questions will help your child think creatively as they pursue this activity and encourage them to explore the topic further in the future.

1. What animal do you think was the first to go to space?
2. What do you think space is like?
3. What happens when you clap harder?
4. What happens when you don’t clap as hard?
5. How high do you think Rocket Mouse can fly?
6. How would you change Rocket Mouse’s design to make it fly higher?
7. Do you think using different types of “launch pads” (soda bottle, gallon milk jug, etc) would change Rocket Mouse’s “flight path”?
8. Do you think Rocket Mouse would fly farther or higher in the air if it were made with a bigger cone? How about a smaller one? (Parents: You can scale the Rocket Mouse template up or down using your printer settings.)

HOW TO BUILD & FLY ROCKET MOUSE

1. Print as many copies of Rocket Mouse as you need. Hand out small pieces of tissue paper (3 x 3 inch square) and 4-inch pieces of the yarn to each student.
2. Cut out Rocket Mouse then flip it over and tape the tail to the bottom curved edge. Flip Rocket Mouse back over.
3. Using the glue stick, apply glue to the space marked by diagonal lines.
4. Carefully shape Rocket Mouse into a cone. If this is too difficult, Rocket Mouse can be folded into a flat triangle by folding the paper over the glued area. Rocket Mouse can then be shaped into a cone by squeezing the two creases.
5. Fold the tissue paper in half and draw a circle with an edge touching the fold. Carefully cut out the circle without cutting the fold. Glue the tissue paper to the pointy end of the cone to create Rocket Mouse’s ears.
6. To make Rocket Mouse fly, place it on the mouth of the bottle or milk jug. Place your hands on either side of the bottle and bring them together, as if to clap. With a loud bang, Rocket Mouse will blast off!

A BRIEF HISTORY OF ANIMALS (AND ONE HUMAN) IN SPACE

The first animals sent into space were fruit flies aboard a US-launched V-2 rocket on February 20, 1947, from White Sands Missile Range, New Mexico.

The first monkey in space was Albert II, a rhesus monkey who took off in a US-launched V-2 rocket on June 14, 1949.

The US launched a mouse into space on August 31, 1950, aboard a V-2 rocket.

Soviet cosmonaut Yuri Gagarin was the first human being to travel into space on April 12, 1961, aboard the spacecraft Vostok 1.