

BLACK HISTORY MONTH CRAFT

Let's make a Katherine Johnson inspired rocket!

Katherine Johnson was a mathematician and NASA employee, whose calculations of orbital mechanics were critical to the success of the first and subsequent US crewed space flights. The space agency noted her "historical role as one of the first African-American women to work as a NASA scientist."

You'll need: a pair of scissors, a glue stick, a pencil, a ruler, clear sticky tape and three sheets of coloured A4 card (I've used orange for the nose, white for the tube and blue for the fins - but the choice is yours).

To begin, please print off the accompanying template of the rocket's nose and fins onto A4 paper. Cut out the nose and fin shapes (don't cut along the centre line of the fins at this stage). Draw around the shapes onto the coloured card of your choice (twice for the fin shape) and then cut them out. For the tube of the rocket, cut out an exactly 16cm square piece of card - again, from the coloured card of your choice.

1. Curl the nose around and glue one side onto the other to form a cone. Make sure the cone has a sharp point and the open end's edges line up. Press and hold long enough for the glue to stick it firmly together.



2. Pencil four parallel lines onto the square piece of card, one 2cm from one edge and the others 3.5cm apart. Mark points at 7cm along each line.

3. Curl the square around (pencil lines on the outside) and glue one side onto and up to the 2cm line on the other to form a tube. Press and hold long enough for the glue to stick it firmly together.



4. Cut slots along the fin centre lines, from the top end to just past halfway on one and from the bottom end to just past halfway on the other.

5. Slide the two fin pieces together along the slots and adjust them so they line up. Press sticky tape inside the angles of the fins to secure them together.



6. Cut 7cm long slots along the tube lines (up to the marks). Slide the fin section all the way into these slots, adjusting so it lines up evenly within the tube.

7. Cut eight roughly equal spaced slots of about 1.5cm long into the other end of the tube. Bend each tab slightly inwards and apply four rolled over pieces of sticky tape onto them.



8. Push the inside of the nose cone firmly onto the sticky taped tabs until secure, making **sure it's on straight**. Your rocket is now ready for lift off!

Caution: Adult supervision will be required when using scissors. Small parts can be a choking hazard. Do not leave children unattended during project.

BHM CRAFT: ROCKET TEMPLATE

