

Operation Ruman - Hurricane Relief

The RAF STEM activity is for KS3 students based around a series of virtual breakout rooms. The activity is based on the RAF's relief response to Hurricane Irma in 2017 called Operation Ruman. We will present information about the relief effort in the form of maps, diagrams and videos from RAF staff involved in the relief effort, which the students will use to solve the clues and open the lock to the next room. Locks can be colour, letter, number or directional based, and more.

The students will find out about the varied STEM-based careers in the RAF and how logistics and problem-solving skills were needed to manage the Hurricane Irma relief operation.

The Breakout experience tests their problem solving skills and adds another dimension to their learning. The Breakout platform needs the 4Cs - Collaborate, Communicate, Critical Thinking and Creativity to solve the problems.

Using The Breakout

The link for the Breakout is here:

<https://platform.breakoutedu.com/game/play/inwed-2-420858-T7PCLSVXSW>
or in shortened format: <https://bit.ly/2HNFhzb>

The activity will last approximately an hour, the breakout about 45 minutes, and students can be in their classrooms to take part.

The activity can be delivered on the whiteboard/screen with the pupils working in groups or as a class to solve the locks.

Ideally, provide iPads, Chromebooks, laptops etc. to each group. Each group can join the breakout on their devices and compete against the other groups. The activity works through a browser.

During the Breakout if the groups become stuck, they can ask you for a hint. These are given on the next page along with the answers.

If a group finishes quickly then there is a reflection form to complete which focuses on the 4Cs.

<https://drive.google.com/file/d/1pyptUnwmlVZUJMyaiFZPSvP2M9wIBDQ0/view?usp=sharing>

Answers and Clues

Lock 1

Clues:

- Follow the hurricane tracks. Look at the colours used to indicate the strength of the hurricane.
- Find the track for hurricane Irma and follow it from the atlantic.
- Add the first 5 colours to the lock in order.

Lock 2

Clues:

- Look at the ingredients needed from local produce to help plan your meals
- The expiration of each local ingredient to plan which meal on which day
- One of the meals doesn't need local ingredients
- Order the meals using the ingredients with the last meal being the one that doesn't have any local produce. Then once ordered use the shapes from each recipe to open the lock

Lock 3

Clues:

- Find yourself a common unit, inches, cm, mm
- Convert all items to same unit of length
- The clue says use metric - cm or mm will give you the answer

Lock 4

Clues:

- Plan out all the trips the chinook has to take
- Remember to make allowances for maintenance

Lock 5

Clues:

- Don't be too harsh, these people are in the aftermath of a hurricane!
- There are no level 5s

Background

You can learn about all the Royal Air Force people, careers, aircraft, projects and much more here: <https://www.raf.mod.uk>

To hear about other RAF youth engagement projects, follow on social media:



@rafyouthengage



@rafyouthengage

hi-impact is an educational consultancy based in the North West of England but working nationally across the country to provide creative and innovative training in STEM learning. We are working with the RAF to provide a range of STEM opportunities across the UK.

hi-impact Consultancy: www.hi-impact.co.uk