ASTRONOMY TECHNOLOGY WITH THE MUSCAT TEAM

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

Explore the night sky - you do not need cutting edge technology like MUSCAT to be an astronomer! There are lots of amazing things you can see with your own eyes, or a pair of binoculars.

There are a number of free smartphone apps that can be your guide, giving you a map of the night sky wherever you are. Download one of these apps to start exploring what is up there.

On a clear night, try to find somewhere away from streetlights and look up at the sky. Can you identify any constellations? Are there any planets visible? What phase is the moon in?

TALKING POINTS

KNOWLEDGE
1. What does the MUSCAT camera consist of?
2. How cold does MUSCAT need to be?

COMPREHENSION
3. Why will MUSCAT be located at the summit of Sierra Negra in Mexico?
4. Summarise the journey of millimetre wavelength electromagnetic radiation that arrives at MUSCAT from space.

ANALYSIS
5. Why is observing light from a distant galaxy like 'seeing into the past'?
6. Why do you think so little astronomy has been done using millimetre wavelengths before?

EVALUATION
7. How do you think Sam, Victor and Marcial's childhoods influenced their decisions to design and build astronomy technology?
8. Do you believe that observing distant galaxies is a good use of technology? Why or why not?
9. Do you think MUSCAT would have been possible without international collaboration? Why or why not?

MORE RESOURCES

Learn more about MUSCAT: **muscat.astro.cf.ac.uk**

Watch this TED talk by Catherine Heymans (the first woman appointed as Astronomer Royal of Scotland) about the fascinating discoveries that astronomy technology makes possible: **www.ted.com/talks/catherine_heymans_searching_for_a_new_cosmic_view**

Read the American Astronomical Society's guide to careers in astronomy to get an insight into what life in the profession is like: **www.aas.org/sites/default/files/2019-10/Careers-in-Astronomy.pdf**

Interested in coding? Try out this online beginner's course to explore how astronomers use computers to help explore the Universe: **www.hourofcode.com/quorumastro**