

# INTERNATIONAL SPACE CHALLENGE 2015

## Preliminary Round “To Mars and Back”

We are inviting your team of 6 students to submit a 3 minute video on the topic of “To Mars and Back”. All of you should be studying both a language and a science at GCSE. This is open to Years 10 and 11. The ten best teams from each county will be invited to a semi-final and the best two teams from each semi-final will be put through to a regional final in December. The winning team will win a very special day out at the National Space Centre.

Within your lifetime there is a possibility of a manned mission to Mars; this could be the next big step in space exploration. You and your team are invited to research the challenges and possibilities of getting humans to Mars and returning them safely back to Earth. The astronaut team will represent the whole human race and so will include men and women from a wide range of races and cultures including Russia, China, India, Europe and America. You will need to look at not only the technical and physical challenges faced by a mission to Mars, but also the social aspects of these intrepid explorers living in close proximity for long periods of time.

Every member of your team must take part in the video. It must include the following points:

- What do you see as the single most difficult technical challenge of a manned mission to Mars and how would you solve it?
- What do you consider to be the single most significant physiological challenge faced by human crew members in getting to Mars and back again safely?
- What one measure would you undertake that will have the greatest impact in overcoming the language and cultural barriers between the astronauts?

### JUDGING CRITERIA

- Innovative ideas and creativity
- Reasoning
- Enthusiasm
- Quality of communication and teamwork

