

Frogs in Space Teacher Guide

This lesson introduces students to two experiments that have been conducted in microgravity using frogs. The lesson includes a PowerPoint presentation and brainstorming activity. Students are asked to watch video footage from the Frogs in Space (FRIS) experiment conducted on the MIR Space Station, and make observations. Based on these observations, and their knowledge of frogs, students are asked to draw their own conclusions and then compare them to the conclusions of the Japanese scientists.

At the end of the presentation students are asked to use what they have learned about frogs, animal habitats in space and ethics, to propose an experiment which would investigate whether we could use frogs as an indicator of a healthy environment in space.

This activity could be a simple discussion or a design project which uses all the knowledge they have gained throughout the “Frogs in Orbit” program.

1. Read the background information provided in the ‘Frogs in Space - Teacher Notes’.
2. Show students the ‘Frogs in Space’ PowerPoint presentation and discuss slides.
3. Set project to propose an experiment to investigate the use of frogs as an indicator of a healthy environment in space. Remember that the environment is an engineered environment. Would the use of frogs be practical or not? Remind students to draw on their knowledge about frogs, animal habitats in space and ethics.