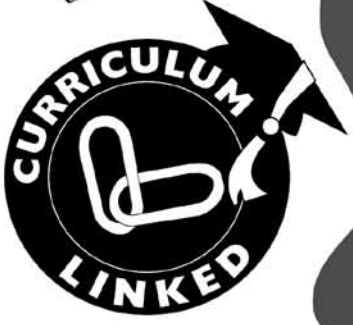
For Ages 11+

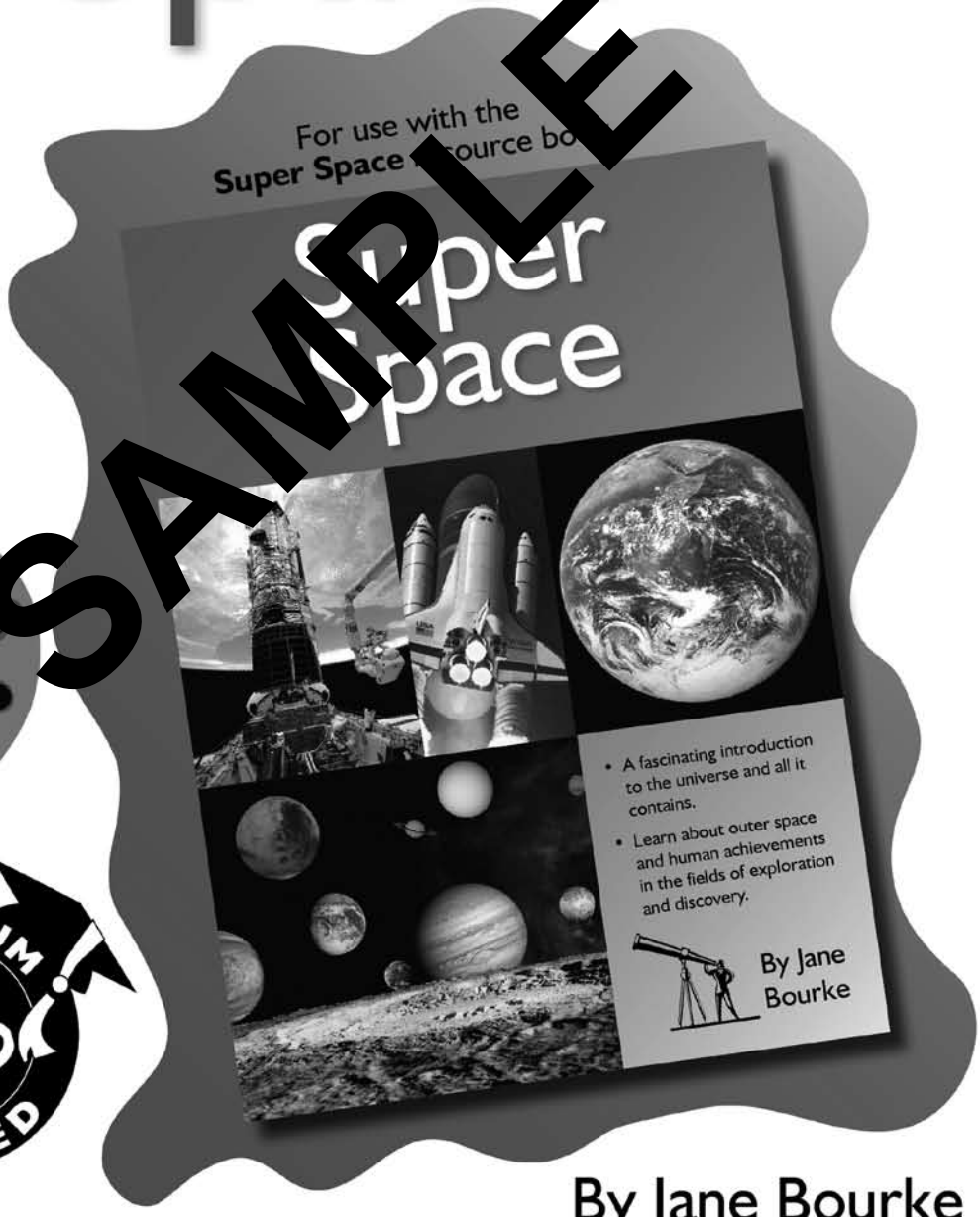
A Library Activity Pack

BLM ACTIVITY BOOK

PHOTOCOPY MASTERS

Super Space





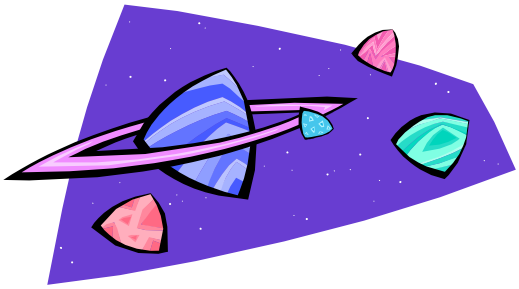
By Jane Bourke

A complete learning centre package for the library. Set against the backdrop of Space and Astronomy, this innovative package acts as a springboard for developing and enhancing thinking and creativity skills.

Contents

Task Card Activities:

Task 7: Sister Solar System



Materials: Super Space resource book, Internet access (optional), library books, encyclopedias, pen, paper.

Task: Your name is Telly Skope and you have just discovered a solar system similar to ours existing in another galaxy far far away.

- ❑ Explain how you discovered this solar system, *(e.g, radiowaves, alien visit, telescope images);*
- ❑ How was this system formed and what "star nebula" was it created from?
- ❑ Make a table to show all the ways that this system is similar to our solar system.
- ❑ Draw a 2D model of this system, showing the orbital paths of the planets.
- ❑ How many light-years away is this system? How many astronomical units (AU)?
- ❑ Discuss in detail what you know about this solar system *(e.g. planets, location, sun, life forms).*
- ❑ Is it possible to travel to this system? *(E.g. experiment with the fourth dimension of time perhaps.)*
- ❑ What impact will this discovery have on Earthlings?

Related Outcome: Students will hypothesise about the existence of another solar system.
Creative Thinking Skills: Applied Imagination, Creativity, Psychological Analysis.
Subject Areas: Science - Earth & Beyond, English - Creative Writing, Mathematics - Measurement, Space.

Task 8: Venus - The Evening Star

Materials: Super Space resource book, encyclopedias, pen, paper, coloured markers.

Task: Venus is often described as Earth's sister planet. Brainstorm all the ways in which Venus is similar to Earth.

Make sure you address these features:

temperature	climate	atmosphere
orbit	rotation	size
length of day/night/year	surface	distance to sun

Extra:

- Find out about the goddess Venus.
- Why is Earth the only planet not named after a Roman or Greek God?
- Make a list of the spacecraft that have ventured past Venus.
- Find Venus in the night sky - it's usually the first light you'll see.

Related Outcome: Students will complare two planets on a number of levels.
Creative Thinking Skills: Brainstorming, Imagination, Elaboration.
Subject Areas: Science - Earth and Beyond.

Task 19: Stranded in Space!

Materials: Super Space resource book, paper, pen, library books.
The Scene: You are a researcher and have been sent to the International Space Station for two months. Your role was to study plant growth in space and your main focus was to fertilise pumpkin seeds in space and observe the changes in their form.
All contact was lost with Mission Control during a freak meteor shower.

Your Task:
a. Describe in detail your position and lifestyle on the Space Station.
b. Explain what you will do from here on in, in terms of survival. Assume that you have no means of communication with the outside world, yet you have two other technicians with you. There are possibly other methods for communicating on other parts of the space station that you are not familiar with.

Problem Reversal: Brainstorm the ways in which this p[illegible] (being stranded in space) could have a positive outcome!
Extra: Write up your scientific findings about pum[illegible]kin seed fe[illegible]sation.

Related Outcome: Students will problem solve a situati[illegible] view[illegible] the p[illegible]m from a number of perspectives.
Creative Thinking Skills: Imagination, Flexibility, Problem[illegible]vers[illegible]
Subject Areas: English - Writing, Science - Earth [illegible]eyon[illegible]chnology.

Task 20: Space Time Capsule

Materials: Super Space res[illegible] book, paper, pen.

Task 1: Create a [illegible]me c[illegible]sul[illegible] be buried in an iron trunk several metres below the s[illegible]e o[illegible]Mars. Their is no specific date scheduled for the opening of the c[illegible]e. Historians are hoping to leave it there for thousands, even millions of years.

On an A4 sheet of paper, provide a detailed list of what should be placed inside the time capsule. Try to include details of the latest research in a number of fields, e.g. biology, meteorology, geology, medicine and so on.

Discuss other things that you think should be included in the space time capsule and give your reasons for EACH item.

Task 2: Fast forward to the future. Explain where you are in time and how you have managed to come across the space time capsule.

- What are your reactions?
- What is going on around you on Mars at this point in time?

Related Outcome: a) Students will discuss the features of a proposed time capsule, planning the materials that are to be included and providing a justification for each item; b) Students will understand the importance of artefacts from the past.
Creative Thinking Skills: Curiosity, Imagination, Risk Taking.
Subject Areas: English, Society & Environment/HSIE - Time, Continuity & Change, Science, Technology.

Activity Checklist

Photocopy this sheet onto A3 paper and display in learning centre. Students check off the sheets as they complete them.

Student Names																				
Activity Name																				
T1: Spaced Out																				
T2: Even More Spaced Out!																				
T3: Moon Mining																				
T4: Telescope Technology																				
T5: An Astronomical Discovery																				
T6: The Big Bang Theory																				
T7: Sister Solar System																				
T8: Venus - The Evening St																				
T9: Destination Mars																				
T10: Hubble Trouble																				
T11: Design a Mars Mobile																				
T12: Strange Space Scenarios																				
T13: Space Talk: Planet X																				
T14: The Maths of Meteors																				
T15: Diorama: Orbits																				
T16: Close Encounters																				
T17: Comets Vs Tadpoles																				
T18: Down to Earth!																				
T.19: Stranded in Space!																				
T20: Space Time Capsule																				