## **OUT OF THIS WORLD**

# **STAGE TWO TEACHERS' NOTES**

Stage 2 is essentially a game in which the different crews in Stage 1 race to the planet, Terra Nostra. A further competitive element is introduced by declaring that only four spaceships can land, the other crews having to be 'rescued'. Any marks awarded for work in Stage 1 can be used to determine choice of launch sites. Stage 2 provides a link between the Earth-based preparations and the .New World' environment of Terra Nostra, and it also involves some random rearrangement of students into four larger groups ready for Stage 3.

Although Stage 2 can be omitted completely, it does introduce, at the very least, added interest and involvement in a new activity. At a higher level, it can involve further exercises in decision making, group responsibility, simple record keeping, computer work and basic arithmetic.

Stage 2 is perhaps the most difficult part of the whole Out of the World simulation to update effectively. An updated computer simulation would be ideal but, for reasons given in the background notes to the project this cannot be supplied as part of the package. Stage 2 could, however, still be operated using a static board or a scrolling map, as in the original scheme. Further teacher's notes and accompanying student materials are provided for this purpose, or for adaptation in whatever way a user feels appropriate.

#### Follow-up work could include:

Study of manned space journeys – the first man in space, the first moon landing, the space shuttle and the space lab.

Consideration of problems of prolonged space voyage to Mars, more distant planets in our solar system, and beyond.

Consideration of possibility of intelligent life forms elsewhere in the universe.

Discussion of science fiction space journeys in film and in books e.g. Star Wars, Star Trek,

Dr Who, Asimov's Foundation series etc.

#### SCROLLING SPACE MAP GAME

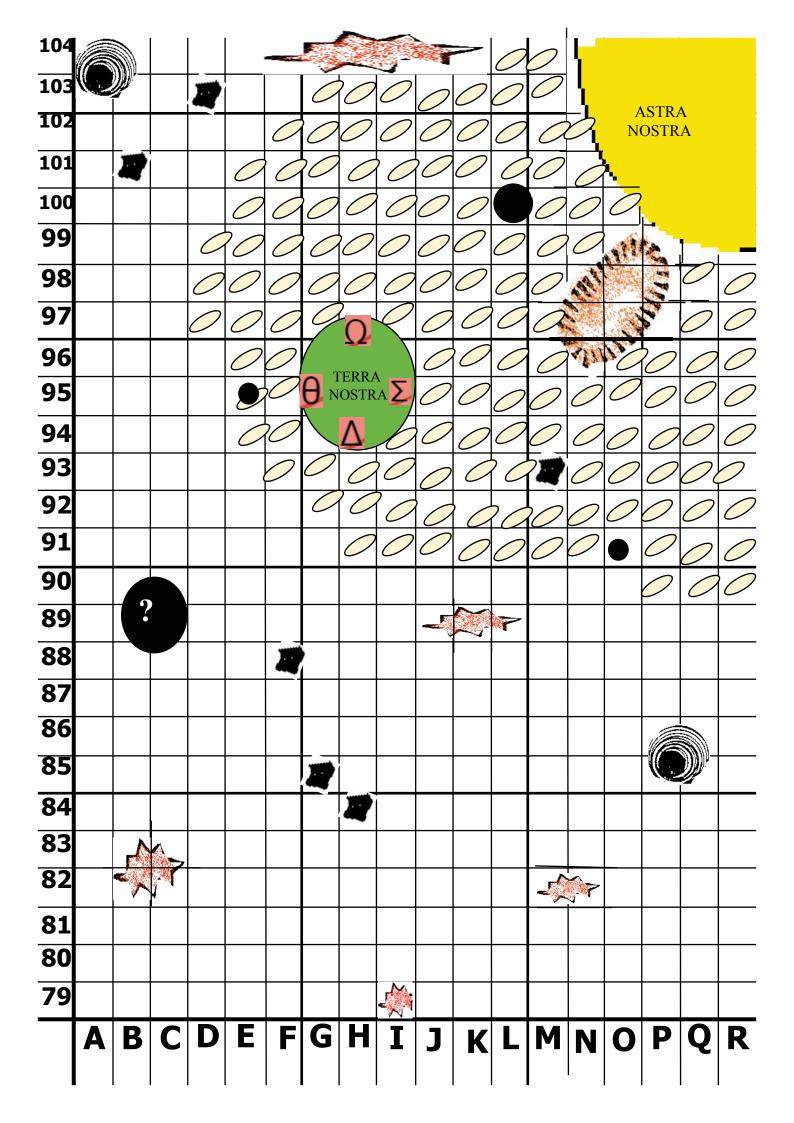
The 4-page grid shows the map that was used for the original simulation. It was reproduced on an acetate roll and projected onto a white screen using an overhead projector. A small version used the map printed on a roll of paper fed under a clear squared acetate sheet. Without writing a computer game version it might be possible to obtain the scrolling effect by running a slide presentation in which each view shows the map advanced by one square.

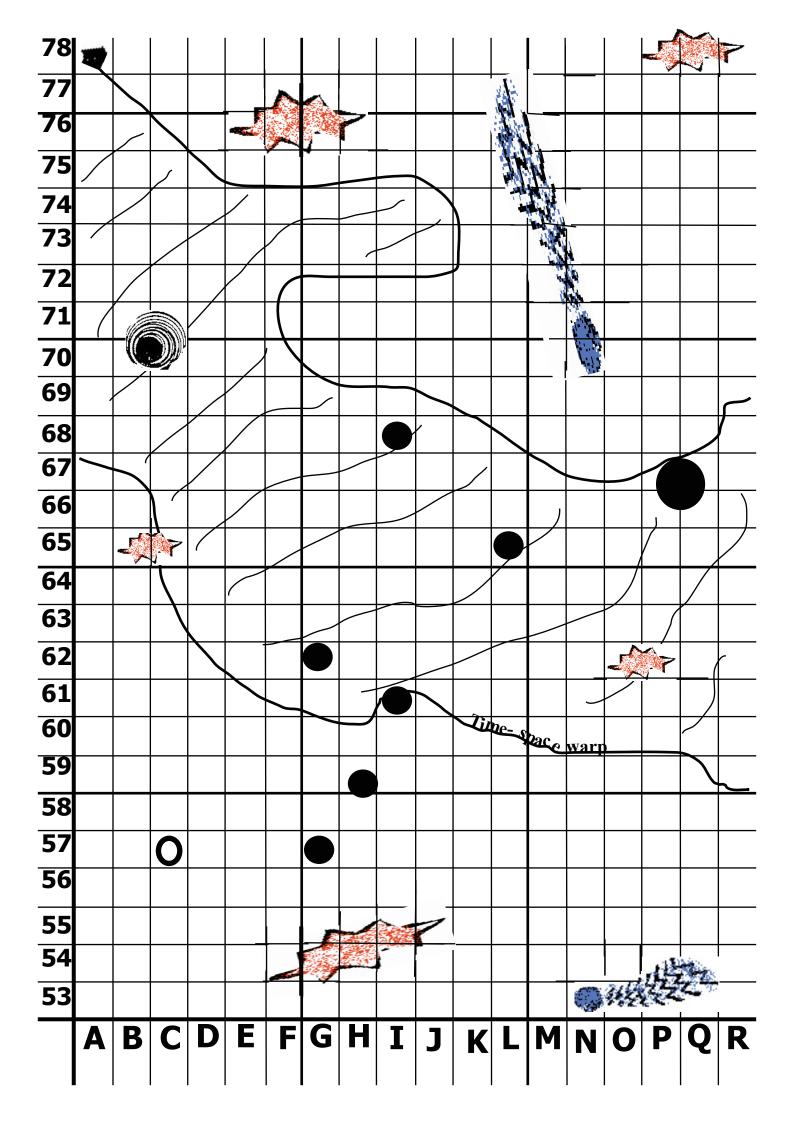
All of the students' record sheets and hazard cards are applicable to a scrolling map. The monitoring process for food, fuel, oxygen and water has been much simplified; the 'units' of these resources used are a token representation of very complex real life issues. The hazard cards can be shuffled at random or set in a predetermined order. A spaceship affected by a particular hazard only suffers the penalty once for that site even if the spaceship remains in the hazard for subsequent turns. A similar hazard encountered elsewhere incurs a new penalty.

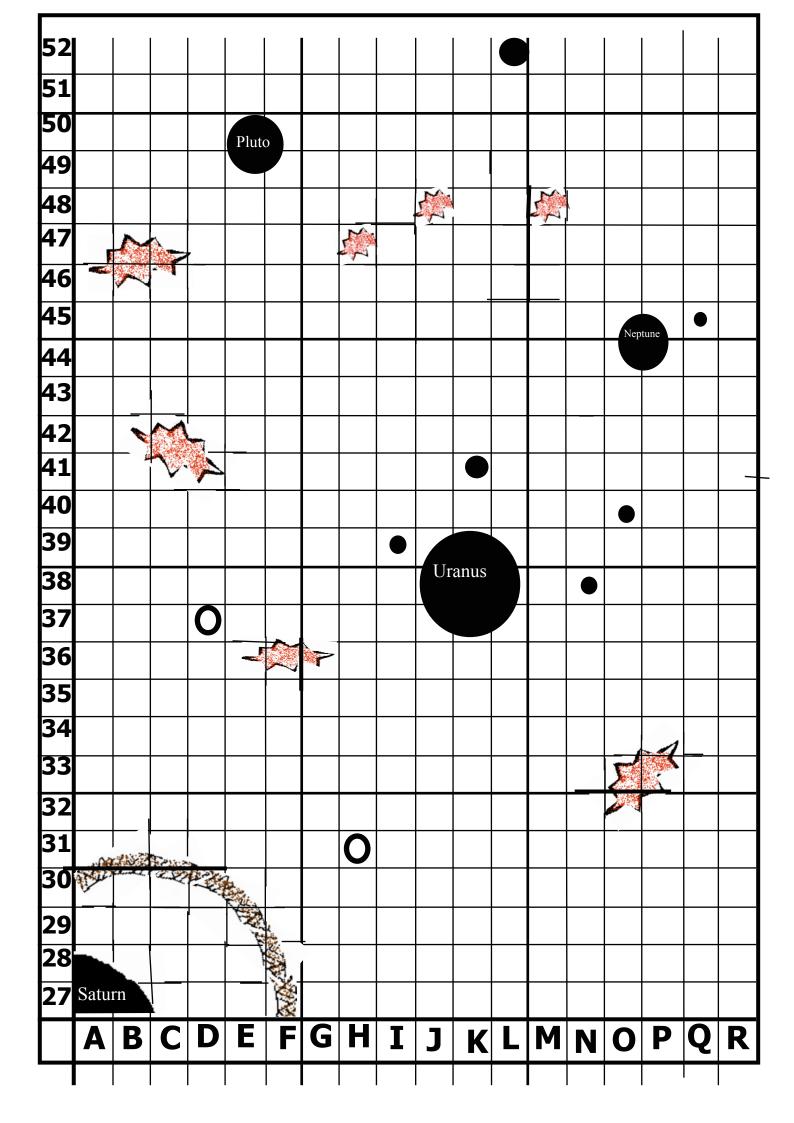
It is recommended that the space map scrolls on one square each time, but the game can be speeded up by moving in on more (possibly at random by shake of dice?).

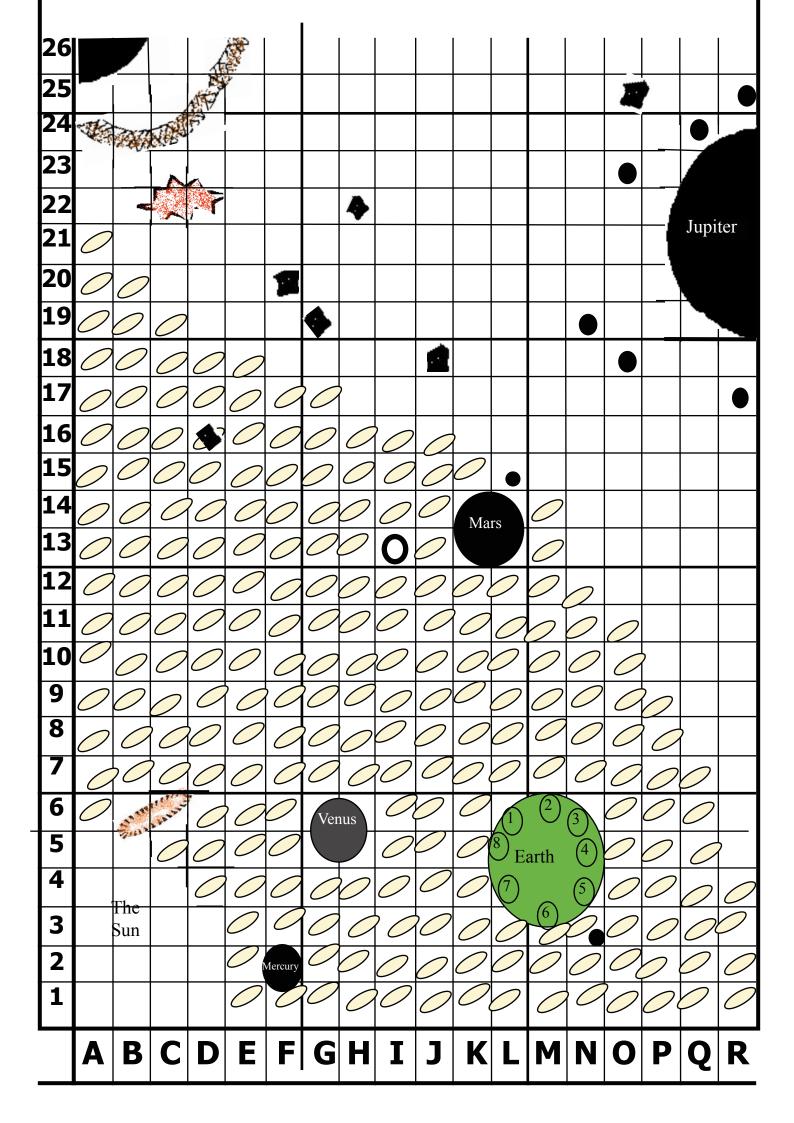
### THE STATIC BOARD GAME

The design shown is based on one developed by Penny Cunningham during trials at Devonport Girls' High School. It is in the form of a conventional board race game with moves determined by throw of dice. Most of the hazard cards can still be used. For 'cosmic disturbance' all spaceships will be moved simultaneously the requisite number of moves. The Navigator's chart and the Captain's log are not really appropriate but the logs for other crew members could still be used.









| H<br>Appearance on map   | AZARDS ON THE SPA<br>Type of hazard  | CE MAP<br>Effect of hazard<br>Collision hazard if you land on or pass<br>through a square with one of these<br>hazards.<br>Very dangerous. Your spaceship is lost<br>is you land on a Black Hole, but crew<br>are rescued by nearest ship. Collision<br>hazard if you pass through Black Hole<br>in one turn. |  |  |  |
|--|--|---|--|--|--|
| • 🕷 🔿  | MOON, ASTEROID &<br>METEOR   |   |  |  |  |
|  | BLACK HOLE   |   |  |  |  |
| ALL  | SOLAR FLARE  | Safe to pass through in one turn but<br>radiation hazard if you are trapped in a<br>Solar Flare.  |  |  |  |
| 0444年2   | COMET  | Radiation hazard if you pass through<br>path of Comet in one turn, but collision<br>hazard in you are trapped in Comet.   |  |  |  |
| - Ch   | RADIATION BELT   | Radiation hazard if you land on or pass through a Radiation Belt.   |  |  |  |
| $ \begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ \end{array} $  | SOLAR RADIATION ZONE   | You get more food from plants and<br>more energy for any move which starts<br>or finishes in this zone.   |  |  |  |
| THE REAL PROPERTY AND A DECIMAL OF A DECIMAL | SATURN'S RINGS   | Safe to pass through in one turn but collision hazard if you are trapped in Saturn's Rings.   |  |  |  |
|  | TIME-SPACE WARP  | You may move any number of spaces<br>in the time-space warp, using only fuel<br>for life support systems.   |  |  |  |
| ?  | MYSTERY OR A NAMED<br>PLANET (Mercury, Venus,<br>Earth, Mars, Jupiter, Saturn,<br>Uranus, Neptune, Pluto | Crash-landing if you hit a planet. If<br>you pass right through a planet in one<br>move you must still move back to the<br>planet. Miss a turn and use up air and<br>water from store. Use 5 units of fuel for<br>blast-off.  |  |  |  |
| θΣ   | TERRA NOSTRA   | You must land on one of the 4 sites<br>marked. Crash landing if you land else-<br>where. Once you have safely landed<br>move your ship to stay on landing site<br>if map rolls on.  |  |  |  |

| EARTH         |                         | Moon<br>4               | <b>5</b>               |                        | 19            | Jupiter<br>26 | 27            | 34   | Saturn<br>35    |
|---------------|-------------------------|-------------------------|------------------------|------------------------|---------------|---------------|---------------|--|-----------------|
| 00            |                         | 3                       | 6                      | 17                     | 20            | 25            | 28            | 33   | 36              |
| 10            | <sup>9</sup> 🚫          | 8                       | 7                      | 16<br>Mars             | 21            | 24            | 29            | 32   | 37              |
|               | 12                      | 13                      | 14                     | 15                     | <sup>22</sup> | 23            | 30            | 31   | 38              |
| 48            | <b>47</b><br>Go to 62   | 46                      | 45                     | 44                     | 43            | 42            | 41            | 40<br>Uranus                               | 39              |
| 49            | 62                      | <b>63</b><br>Go to 46   | 64                     | 65                     | 66            | 67            | <sup>68</sup> | 69   | 70              |
| 50            | <b>61</b><br>Go to 78 👯 | 78                      | 77<br>Go to 64         | 76                     | 75            | 74            | 73<br>20      | 72<br>•••••••••••••••••••••••••••••••••••• | 71              |
| 51            |                         | <b>79</b><br>Go to 60   | <b>88</b><br>Go to 89  | 89                     | 90            | 91            | 92            | 93   | 94              |
| 52<br>Neptune | 59                      | <b>80</b><br>Go to 87 🗮 | 87                     | <b>100</b><br>Go to 89 | 99            | 98            | 97            | 96   |                 |
| 53            | 58                      | 81                      | 86<br>_ <mark>M</mark> | 101                    | 106           | 107           | Moon          | 113  | 114             |
| 54            | 57                      | 82                      | 85                     | 102                    | 105           | 108           | 111           | 116  |                 |
| 55            | 56<br>Pluto             | 83                      | 84                     | 103                    |               | 109           | 110           | 117 Ω<br>Σ                                 | TERRA<br>NOSTRA |

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