

Phase Two : Cruise
Lessons 11—20

Activities 11

What would be the most difficult thing for you to do before leaving on Alpha One?

Who are some of the people that you would miss?

Find a shoe box (any small box will do) and fill it with all of the memorabilia you would want to bring with you

Web Resources for this Topic:

Astronaut Diary

<http://www.bbc.co.uk/science/space/exploration/astronaut/roberto1.shtml>

Activities 12

Use your map of the solar system to track *Alpha One's* progress.

On its trip, *Alpha One* will get close to one of the Gas Giants for a gravity assist acceleration, if you could choose any one of them, which one would it be and why?

Web Resources for this Topic:

Solar System Reference

<http://www.physlink.com/Reference/AstroPhysical.cfm>

Interactive Solar System

<http://liftoff.msfc.nasa.gov/academy/space/solarsystem/solarsystemjava.html>

Science and Astronomy Reference Desk

<http://www.refdesk.com/space.html>

The Solar System

<http://www.the-solar-system.net/>

Activities 13

Imagine you have a VR device that would allow you to experience anything. What would you choose to do?

Design a VR game to keep someone occupied. What kind of game would it be? Would there be levels with puzzles, enemies, or both? What kind of role would you play, if any. Would it be a game like Tetris, or like Zelda?

What could you do instead of playing in VR?

If you were ordered by the ships psychologist to stop using VR what would you do.

If you had to read a book, what would it be?

Web Resources for this Topic:

Long Duration Crew Psychology

<http://www.marsacademy.com/crew/crew1.htm>

Computer Addiction

<http://www.rider.edu/~suler/psycyber/cybaddict.html>

Activities 14

What would the supply ship look like? What kinds of things would it have to carry?

Draw the supply ship./

Web Resources for this Topic

Observational Astronomy

<http://www.stargazing.net/>

What Our Solar System Looks Like from Outside

http://www.space.com/scienceastronomy/astronomy/dust_view_020212-1.html

Activities 15

Use your map of the Alpha Centauri system to track the progress of the Alpha One.

Research what sea going vessels or airplanes do to prepare for the end of a long journey

Web Resources for this Topic

Alpha Centauri

http://www.eso.org/outreach/eduoff/catchastar/cas-projects/nether_alphacen_1/home.html

Constellations and Their Stars

<http://www.astro.wisc.edu/~dolan/constellations/>

(Hint: Look under the constellation Centaurus, or Rigil Kentaurus)

Alpha Centauri

<http://homepage.sunrise.ch/homepage/schatzer/Alpha-Centauri.html>

Activities 16

Use your map of the Alpha Centauri system to track Alpha One's progress.

Recall a time you have been very close to something you anticipate a lot. Imagine not only a destination, but a birthday perhaps, how did you feel?

Write down your thoughts and compare them to how you think the *Alpha One* crew may feel.

Web Resources for this Topic

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Alpha Centauri

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Activities 17

Create an example of the kind of writing you would make orbiting an entirely new world.

Research what other Explorers have written when viewing something new (to them at least). Some suggestions include: Columbus, Captain Cook, Lewis and/or Clark, etc...

Web Resources for this Topic:

Other Quotes from Astronauts Gazing Upon Earth

<http://homepages.wmich.edu/~korista/astronauts.html>

Alpha Centauri

http://www.eso.org/outreach/eduoff/catchastar/cas-projects/nether_alphacen_1/home.html

Alpha Centauri

<http://homepage.sunrise.ch/homepage/schatzer/Alpha-Centauri.html>

Activities 18

Draw a map of Alpha Prime, taking into account what you learned here include at least five continents, each with its own climate, etc...

Describe what life would be like for people living under the extreme conditions presented by Alpha Prime? What kind of adaptations would human explorers need to make to survive on Alpha Prime?

Web Resource for this Topic:

A Basic Introduction to the Weather and Meteorology

<http://www.learner.org/exhibits/weather/>

The Scripps Oceanographic Institute

<http://sio.ucsd.edu/>

Geology

<http://geology.com/>

Activities 19

Revise your map based on this new information. Label the three major continents. Be sure to take into account how the climate would shift from continent to continent.

Research areas like this on Earth. Knowing what you know about Alpha Prime, what do you think the eventual landing party can expect from each of these areas?

Web Resources for this Topic:

The World's Biomes

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/>

Learning About Rainforests

<http://www.srl.caltech.edu/personnel/krubal/rainforest/Edit560s6/www/where.html>

Missouri Botanical Garden Website About Biomes and Ecosystems

<http://mbgnet.mobot.org/>

Activities 20

Draw the *Eagle* landing craft.

Research landing procedures from NASA or another space agency.

Research the Apollo 11 landing. How did they prepare for their landing?

Web Resources for this Topic:

Chariots for Apollo: A History of Manned Lunar Spacecraft

<http://www.hq.nasa.gov/office/pao/History/SP-4205/contents.html>

Hypothetical Spaceplanes and Reusable Launch Vehicles

<http://www.spacefuture.com/vehicles/designs.shtml>

A Short Piece on Landing the Shuttle

<http://socialstudiesforkids.com/columbia2003/howdoesaspaceshuttleland.htm>