

Mars for Earthlings

LESSON 1: Introduction

In-Class Activity 1

Mars Analogs

Purpose: Observe and rank potential Earth analogs for Mars planetary study.

Earth Analogs

1. What do you think scientists mean by an “earth analog” in the context of studying Mars?
2. As an example, why is the komodo dragon considered an “analog” for a dinosaur?

Analog Regions on Earth

For the following regions (may need to do a bit of internet searching) write in the most important similarities to Mars:

- Atacama Desert, South America
- Death Valley, CA
- John Day Formation, Oregon
- Southern Utah
- Antarctic Dry Valleys

NOW... Check off how important you think the following factors are in deciding whether this is a good analog to Mars (1-very important, 5-not important)

- _____ Environment conditions, setting for deposits
- _____ Geomorphic features (landscape expression)
- _____ Type of water and its presence or absence
- _____ Ambient temperature range
- _____ Mineralogy
- _____ Type of life, if present (extremophile or not)
- _____ Rainfall
- _____ Atmospheric composition

Note: it may be difficult for any Earth Analog to satisfy all the conditions of similarity to Mars

