



# The Mars Invasion 2030 School Package

The Mars Invasion 2030 experience is a curriculum driven program designed to excite and motivate students in the areas of science, technology, engineering, and mathematics.

The package includes:

1. The Mars Invasion 2030 from Coal Camp to Space Camp curriculum
2. The Mars invasion 2030 Interactive Science Center Visit
3. Classroom follow up

## The Curriculum

Titled “Coal Camp to Space Camp”, the Mars Invasion 2030 Classroom Curriculum uses video, various other multimedia elements, and written materials to guide students through a planning process to inhabit Mars. Dr. Thomas Walker, one of Kentucky’s first explorers, guides the students as they use lessons learned from our past to help solve problems of the future. Around the year 2030, when the human race is making final preparations to colonize Mars, they will have to consider many of the same essential questions that faced early pioneers as they entered Kentucky to set up their colonization.

Mars Invasion 2030 uses these essential questions to engage students as they plan their trip to Mars:

### Exploration

- Why go to Mars?
- What do we expect to find when we get there?
- How do we get there?



### Infrastructure

- What type of habitation?
- How will we communicate?
- How will we travel on Mars?

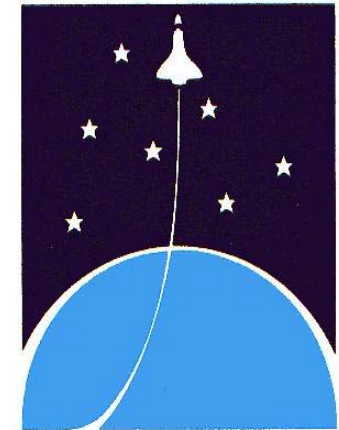
### Societal Structure

- What services and professions will be required?
- What type of leisure activities will be available?
- How do we encourage Mars Colonization?

### Mars Invasion 2030 Visit

In addition to the engaging curriculum, students will also visit the Challenger Learning Center’s Interactive Science Center to participate in the Mars Invasion 2030 Interactive experience.

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Presents



# Mars Invasion 2030!!

Science Fiction movies and early astronomers convinced us all that Martians would soon be invading Earth. However, the opposite is actually true and we are currently invading Mars with probes, orbiters, rovers, and eventually explorers. In fact, there is a very real possibility that the first humans to set foot on Mars may do so by the year 2030, just the perfect age for current 4th grade students to be aboard.



Spirit Rover

The Challenger Learning Center of Kentucky would like to introduce you to “Mars Invasion 2030” the new exhibit to open in the Interactive Science Center in March 2008.


The first explorers and settlers on Mars will undoubtedly need to create an environment for themselves that will allow them to survive on the planet for extended periods of time. Many of the things that we take for granted for our survival on Earth will suddenly become precious commodities as we realize we must mine and process the very water and oxygen we need to live.



## The Curriculum: Coal Camp to Space Camp

Our curriculum is based around the idea that these future Martian explorers need to start the planning process now in order to be ready by 2030. Every aspect of this planning process is directly applied to Kentucky’s Core Content domains. In the same way that the space race of the 50’s and 60’s determined America’s educational direction during that same period, we propose using this unfolding human adventure as a vehicle to add validity, a sense of purpose and excitement to Kentucky’s educational process, and to make a link to our coal mining heritage.

Since mining is an integral part of our everyday life in Central Appalachia, and since much of the same technology used to mine coal and other resources on Earth will be similar if not identical to the technology required to sustain life on Mars, The Challenger Learning Center of Kentucky has developed a partnership with CEDAR (Coal Education Development and Resource) to make mining technology and engineering a major focal point of the Mars Invasion 2030 curriculum.



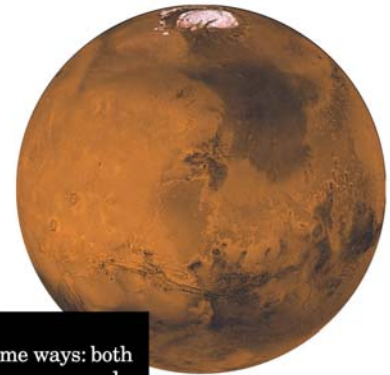
**IS ANYBODY  
OUT THERE?**

There’s probably no life on Mars now,  
but maybe there was before.

Life as we know it needs water. Mars has only ice today, but it probably had water once. Some scientists think a meteorite from Mars contains evidence of life—fossilized waste from an ancient, microscopic creature. Many other scientists disagree.

Earth has the necessary ingredients for life, like water and energy (from the sun). Many scientists believe if we find those ingredients on Mars or other planets, we’ll find life.

How will you feel if we find life somewhere else?



**Mars** is like Earth in some ways: both planets have volcanoes, canyons, and polar icecaps. But Mars is only half the size of Earth, it has no running water, and its atmosphere is poisonous to humans. Most scientists agree that nothing lives on Mars now, but some scientists believe Mars used to support life. To see Mars on a clear night, look for a reddish disk. It looks red because of all the rust on its rocky, dusty surface.