inspiring creative learning
THE RESOURCE CENTER

Star Lab Planetarium Checkout Sheet

Teacher*_____Phone # _____

School_____

Check-out date/time:	**Return date/time:**
Equipment and cylinders checked out: Star Lab _____ Fan_____ Projector_____ Cylinders (how many?)_____ **Biological Cell_____** **Constellations_____** **Earth _____** **Greek Constellation_____** **Lewis/Clark _____** **Milky Way Starfield_____** **Moon _____** **Native American _____** **Tectonic Plates _____** **Weather _____**	**Equipment and cylinders returned:** Star Lab _____ Fan_____ Projector_____ Cylinders (how many?)_____ **Biological Cell_____** **Constellations_____** **Earth _____** **Greek Constellation_____** **Lewis/Clark _____** **Milky Way Starfield_____** **Moon _____** **Native American _____** **Tectonic Plates _____** **Weather _____**

Picked up by: _____ Returned by: _____

This teacher has been trained and is responsible for the care and return of the Star Lab

StarLab Cylinders Available for checkout

Biological Cell: This one million-time magnification of a composite cell demonstrates the workings of a one-celled organism. The processes of cellular digestion and reproduction are illustrated in vivid color. Endoplasmic reticulum, ribosomes, mitochondria, the Golgi complex, secretion vesicle, lysosomes, pinocytotic vesicles, microvilli, cilia, chromosomes and nucleolus are clearly displayed. An identification key is conveniently located on the cylinder. An ideal introduction to cellular biology.

Constellations: This cylinder features the 48 major constellations, the ecliptic and celestial equator. Applications: Star identification, planetary positions and the path of the sun and moon. Useful at all grade levels to facilitate rapid orientation for outdoor observations.

Earth: This cylinder is a projection of the entire terrestrial globe including all of the earth's land and ocean masses. Longitude is displayed at intervals of 15º, latitude is displayed every 10º, with a scale of projection of 1 inch = 40 miles. It is superior to flat maps in its total elimination of distortion, and is useful for studying weather patterns, ocean currents, time zones, social studies and current events. For the study of geography, earth science, geology and navigation.

Greek Mythology: Forty-five classical Greek constellations are featured on a background of 3000 stars, making this cylinder an excellent introductory tool for locating constellations. A convenient identification key includes folk legends about each constellation. For astronomy, mythology, art, literature, social studies and ancient history for all grade levels.

Lewis & Clark Celestial Navigation: In celebration of the 200th anniversary of the expedition of Lewis & Clark, this cylinder projects the Celestial Equator, the lines of right ascension and declination, the ecliptic, the zodiacal constellations, the Precession Circle and constellations, and the North Celestial Pole and shows either the position of the sun at the equinoxes and the solstices, or the moon phases (new, full or quarters) in relation to the sun. Twenty-six student activities demonstrate how Lewis and Clark used celestial navigation to determine their location in the uncharted territory of the mid and northwest United States**.**

Milky Way Starfield: The Starfield Cylinder now includes a depiction of the Milky Way based on the beautiful and highly accurate all-sky panoramas created by Dr. Axel Mellinger. Betelgeuse, Rigel, Antares, Spica, Arcturus, Capella and Pollux appear in full color. Twelve apertures show the position of the sun throughout the year.

Moon: The Moon Cylinder, in conjunction with this curriculum guide, will help you teach your students about phases, eclipses, the Moon's motion through the heavens, and features on the Moon's surface. You will be able to examine and compare sites of the Apollo Moon landings, compare the near and far sides of the lunar surface, and distinguish between such surface features as highlands, maria, craters, mountains, ejecta rays, and rilles. The cylinder comes with a masking cover, which can be used to obscure parts of the cylinder from view, thus keeping your students on task. With the phase identification activity, the mask is designed to allow viewing of only one phase at a time. This allows you to unveil the correct phase once your students' phase predictions have been cast.

Native American Mythology: This cylinder includes colorful outlines of figures from Native American folklore such as Long Sash, the Great Bear, First Man and Woman, Spider God and many others. An identification key contains legends drawn from the Navajo, Shoshoni, Blackfoot, Cherokee, Tewa, Hopi and Algonquin tribes. Excellent for use with K-6 students studying astronomy, social studies or language arts.

Plate Tectonics: This map shows active ridges, faults, spreading centers and volcanic activity over the past 1 million years. Identification keys are clearly visible, making earth science instruction at junior high through college levels easy to illustrate. For earth science and geology.

Weather: The Weather cylinder depicts the earth's atmospheric circulation patterns including location of the wind systems and jet streams, as well as high and low air pressure masses. This colorful cylinder, in conjunction with *A Current Affair*, a 20-page curriculum booklet by Gary D. Kratzer, enables students to interactively explore pressure systems, storm systems, longitude and latitude coordinate plotting and other global weather phenomena. Students can even investigate the significance of the wind systems on the routes of early explorers and lean how the jet streams influenced military decisions during World War II, Adds a new dimension to teaching earth science, weather patterns, and the age of exploration, navigation and history.