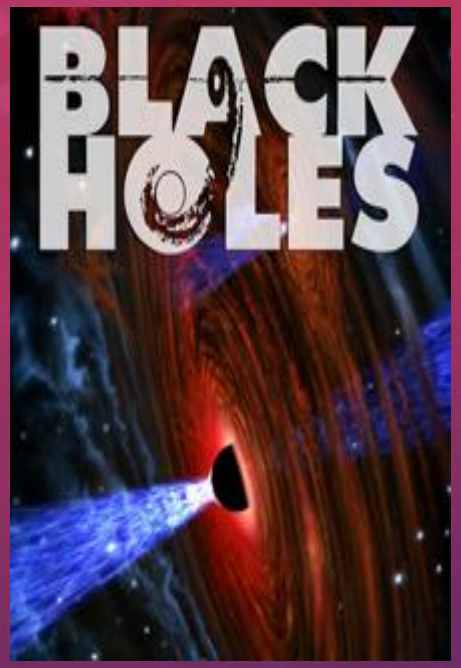
“UNDER THE DOME”

DCB STEM INVESTIGATION TEAM REPORT

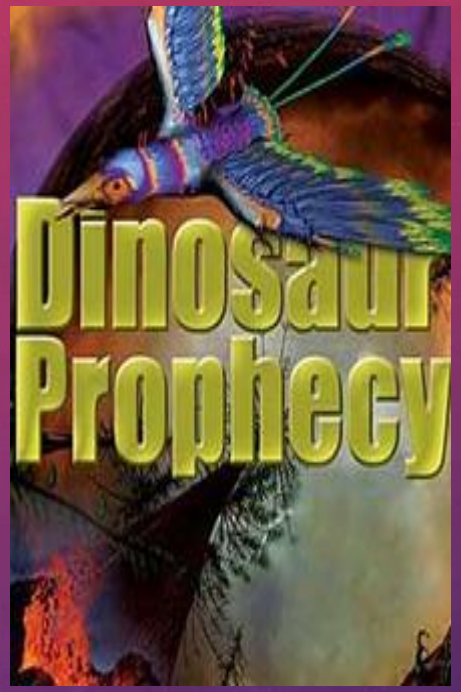
The Discovery Dome

Brings presentations about stars, DNA, the human body, volcanic eruptions and even dinosaurs right into schools for students, teachers and families alike to be taken through a journey of the milky way, the human body, or even the prehistoric planet Earth.

SOME OF THE SHOWS…



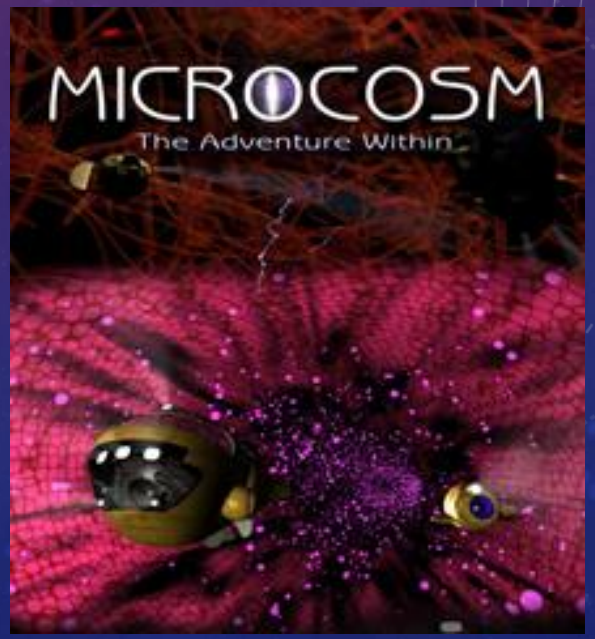
Black Holes-
Embark on a journey through one of the most mystifying, awe-inspiring phenomena in the universe. What is a black hole? Where do they come from?



Dinosaurs!
Discover the lives of multiple species of dinosaurs, from the Coelophysis of 205 million years ago to the Allosaurus and Diplodocus of the mid-Jurassic period.

Impact Earth-
Journey from the birth of our solar system, to the catastrophe that tore this asteroid apart, to the surface of Mars, and to a future asteroid mining colony.

Microcosm-
Embark on a journey through the human body from the eye, to the heart, to the fetus of an unborn baby.



Inside the Dome…

- The dome may seem like a big inflatable igloo and once you're inside it's really rather dark.
- The large projector system, featuring a curved reflective surface of pure silver, sends images and information across the near entirety of the dome's ceiling.
- All you need to do is lie back and enjoy the show.

DR. PATRICIA REIFF

All of the research we compiled is under the supervision of Dr. Patricia Reiff of Rice University in Houston, Texas

She's the leader of the Discovery Dome portable program, which has over 160 installations in 33 countries, and was actually part of the design team for the physical design of the dome.

Without her help, we wouldn't have been able to acquire the dome, much less bring it to surrounding areas to educate students.

WE SOUGHT TO LEARN IF DR. REIFF'S IDEA THAT RURAL AMERICAN STUDENTS DO NOT, OFTEN, HAVE THE OPPORTUNITY TO ATTEND PLANETARIUM SHOWS.

	Have previously visited Planetarium(s)		Have not		Undefined		Total
Adults	24	19.35%	77	62.09%	23	18.56%	124
Students	77	3.72%	1955	94.35%	40	1.93%	2072
Undetermined (age/position not listed)	2	20%	4	40%	4	40%	10
Total	**103**	**4.67%**	**2036**	**92.29%**	**67**	**3.03%**	**2206**

WHICH U.S. PRESIDENT ANNOUNCED, AT RICE UNIVERSITY, THAT WE WOULD TRAVEL TO THE MOON?

- A. John F. Kennedy
- B. Lyndon B. Johnson
- C. Dwight D. Eisenhower
- D. Richard M. Nixon

WHICH COUNTRY WAS THE FIRST TO PUT A HUMAN INTO SPACE?

- A. Italy
- B. The United States
- C. The Soviet Union
- D. Japan

WHAT ENERGY FUEL ON THE MOON COULD POWER TOMORROW'S NUCLEAR FUSION REACTORS ON EARTH?

- A. Hydrogen
- B. Solar
- C. Helium 3
- D. Oxygen

WHAT IS THE MAIN SOURCE OF POWER FOR THE INTERNATIONAL SPACE STATION?

- A. Nuclear Power
- B. Solar Power
- C. Rocket Fuel
- D. Oxygen

WHAT IS THE DURATION OF TIME AN ASTRONAUT TYPICALLY STAYS ON THE INTERNATIONAL SPACE STATION?

- A. 6 months
- B. 6 weeks
- C. 6 days
- D. 6 years

TEST RESULTS

WE GAVE MANY OF THE STUDENTS PRE- AND POST-TESTS CONSISTING OF 15 QUESTIONS REGARDING THE "WE CHOOSE SPACE" SHOW.

- Average pretest: 41.7%
- Average posttest: 67.43%
- Difference of 25.73%

DCB STEM INVESTIGATION TEAM MEMBERS

SPENCER ARCHER

COURTNEY HART

MATT HUWE

LUCAS LINDHOLM

HALEY MASTVELTEN

GREG THOMPSON

UNDER THE SUPERVISION OF ANGIE BARTHOLOMAY

WE'D LIKE TO THANK

- Dr. Patricia Reiff
  - Without her work with the planetariums, we wouldn't have had the opportunity to do any of this.
- Angie Bartholomay
  - Our STEM Investigation Team Advisor who organized all of this and put in a few too many hours helping us grade pre- and post- tests.
- Andrew Gilbertson & Shelly Hoerrer -NCEC
  - They lined up our programs and assisted in the outreach!