

The Magic Planet at HFCC

HFCC purchased a Magic Planet projection system with funding from the Technology Improvement Fund, the Hammond bequest, and the Science Division budget as part of the renovation of the Science Complex. The Magic Planet is a flexible system that allows us to project images of the earth and other celestial objects inside a globe. The images are typically provided by government agencies (NASA, NOAA, and the European Space Agency among others). We currently use it to present 3-dimensional images of the planets and moons of the solar system, and climate data about the earth. These images augment our curricula in astronomy, geology, and earth science.

We use the Magic Planet for a) formal education to augment our courses, b) outreach to the community, and c) informal education to students who pass by the display while traversing the Science Building. The astronomy faculty use it several times a semester to take the students on tours of the planets of the solar system. (A total of 258 students this semester.) It allows the students to see the sun and all eight planets (and their major moons) as though they were orbiting several thousand miles above their surfaces. They compare the surface features of the four inner rocky planets, the atmospheric patterns of the gas giants, and the surfaces of the earth's moon and the moons of the outer planets. We also use the Magic Planet as an adjunct to the Hammond Planetarium for our outreach projects and public shows, expanding our presentation topics and presenting earth and space science in an exciting, interactive format. Our largest outreach so far has been for over 150 elementary school students. Finally, we often leave the Magic Planet running during the week so students can explore the presentations and learn about global warming, space science, weather patterns, and the like by using the interactive touch screen. About 30 students a day interact with the touchscreen, and many more observe the globe without using the touchscreen. Response from participants in our classes, in the outreach programs, and those students who use it informally has been universally enthusiastic.

The rollout of the Magic Planet was not smooth. The manufacturer had to redesign the projection system after production had begun, the lenses were delayed, their customer service department was terminated for lack of service to customers, one of our projectors was improperly programmed by the subcontractor, Turner Construction didn't build the enclosure to specifications and we had to modify it to keep the projectors from overheating. However, since August of 2013, the Magic Planet has been running several hours every weekday when faculty are available to turn it on and off. We have consciously limited the use of the Magic Planet in order to conserve the bulb life, in recognition of the cost of the projector bulbs and the college's financial problems. We have included sufficient allocation for projector bulbs in the next budget to allow more use of the Magic Planet.