The Davis Mountains of west Texas have something for scientists that few places in the world can offer. When the Sun falls below the horizon, it gets very dark. The night sky seems filled with stars. McDonald Observatory is built on top of mountain peaks. There is almost no light pollution. It is one of the darkest places in the United States. Scientists come for the extra darkness.

McDonald Observatory is one of the leading centers for astronomy research and public education. It is run by the University of Texas at Austin. Scientists come to the observatory to study many objects in the sky with powerful telescopes. McDonald Observatory has many different telescopes for scientists to use. A telescope works by taking in light from distant objects in the sky. It is then focused in the telescope. Objects look bigger and brighter. Scientists can study them in more detail. Scientists can study planets, stars, comets, and black holes. They can even study galaxies that are billions of light years away.

McDonald Observatory is home to one of the largest optical telescopes in the world. The 9.2 meter Hobby-Eberly Telescope was built in 1996. It was built to study the properties of the light from stars and galaxies. This tells scientists many details about these objects. The 2.7 meter Harlan J. Smith Telescope was built in 1969. It is 250,000 times more powerful than the human eye. NASA used this telescope to study planets before sending space probes to them. This telescope is used for research on almost every clear Texas night.

The 2.1 meter Otto Struve Telescope is the oldest telescope at the observatory. It was built in 1938. It is 150,000 times more powerful than the human eye. This telescope is still used today by astronomers. McDonald Observatory also has a smaller 0.8 meter telescope. This telescope has lasers. It can measure the distance between Earth and the Moon. It can measure the movement of Earth’s continents.

McDonald Observatory is also open for visitors. Year-round, visitors come to west Texas. During the day, they can tour the Visitors Center or the observatory’s largest telescope. Visitors can listen to scientists give talks about their work. There are also star parties at night. Visitors can look through one of the powerful telescopes. They can then listen to an outdoor star talk. Scientists will point out constellations and objects in the sky.

McDonald Observatory is an amazing place. It is worth a visit to the Davis Mountains of west Texas. Even if you do not want to study astronomy, the visit is one you will enjoy.
1 How does a telescope work?

A It works like a flashlight, shining a beam of light at the object you are looking at.

B It works by gathering and focusing light that is then directed into an instrument attached to the telescope.

C Astronomers look through an eyepiece that makes objects appear bigger.

D It has to be dark outside for a telescope to work.

2 What is the significance of the 2.7 meter Harlan J. Smith telescope?

A It is used to study the properties of light from stars and galaxies.

B It tracks the movement of Earth’s continents.

C This telescope can measure the distance between Earth and the Moon.

D NASA used this telescope to study the planets before sending spacecraft into space to explore.
Why do you think McDonald Observatory is located in the Davis Mountains of west Texas?

A  Observatories must be built on mountains.

B  It was placed there to attract visitors to the observatory.

C  It is one of the darkest locations in the United States and that allows astronomers to have a clearer view of the sky.

D  It is operated by the University of Texas at Austin.

One telescope at McDonald Observatory is used to study stars and galaxies by examining properties of the light they give off. Which telescope is this?

A  9.2 meter Hobby-Eberly Telescope

B  2.7 meter Harlan J. Smith Telescope

C  2.1 meter Otto Struve Telescope

D  0.8 meter telescope

When was the oldest of the telescopes built?

A  1956

B  2002

C  1938

D  1974