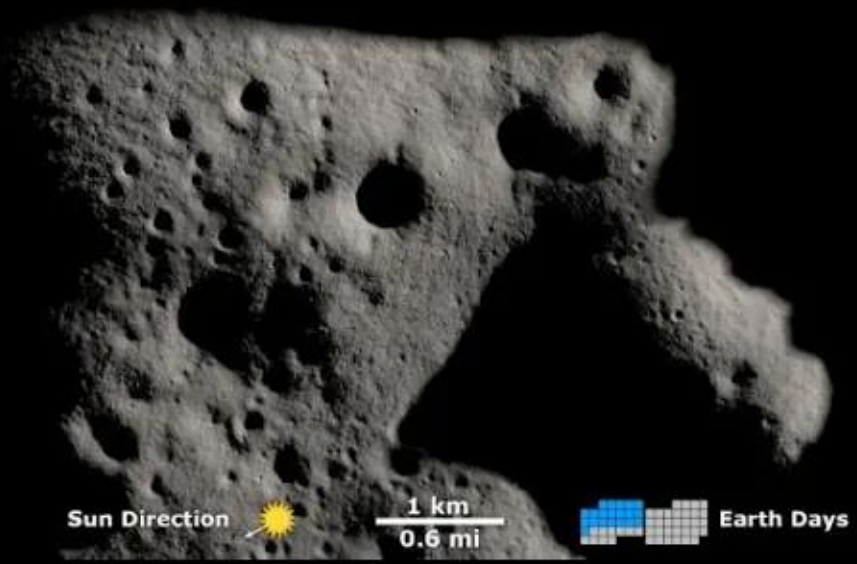
Sun Direction
1 km
0.6 mi
Earth Days

1
00:00:00,866 --> 00:00:04,033
The Moon’s South Pole is a fascinating region to study,

2
00:00:04,033 --> 00:00:08,733
especially when you pay attention to the areas that are in sunlight and darkness over time.

3
00:00:16,833 --> 00:00:20,366
And thanks to NASA’s Lunar Reconnaissance Orbiter, we can zoom in

4
00:00:20,366 --> 00:00:25,100
for an extremely close view of the terrain that shows how the sun shines on the South Pole.

5
00:00:30,800 --> 00:00:34,233
Here, we see how the Moon’s topography creates areas of shadows

6
00:00:34,233 --> 00:00:38,666
over the course of two lunar days, which is equal to two months on Earth.

7
00:00:45,633 --> 00:00:48,600
The flowing dance of sunlight and shadow on the surface

8
00:00:48,600 --> 00:00:53,166
reveals areas that exist in permanent darkness, nearly persistent sunshine,

9
00:00:53,166 --> 00:00:57,600
and others where the balance of light and dark fluctuates thru time.

10
00:01:04,100 --> 00:01:06,133
Studying the shadows at the South Pole

11
00:01:06,133 --> 00:01:09,900
informs scientists about the temperature at and below the surface,