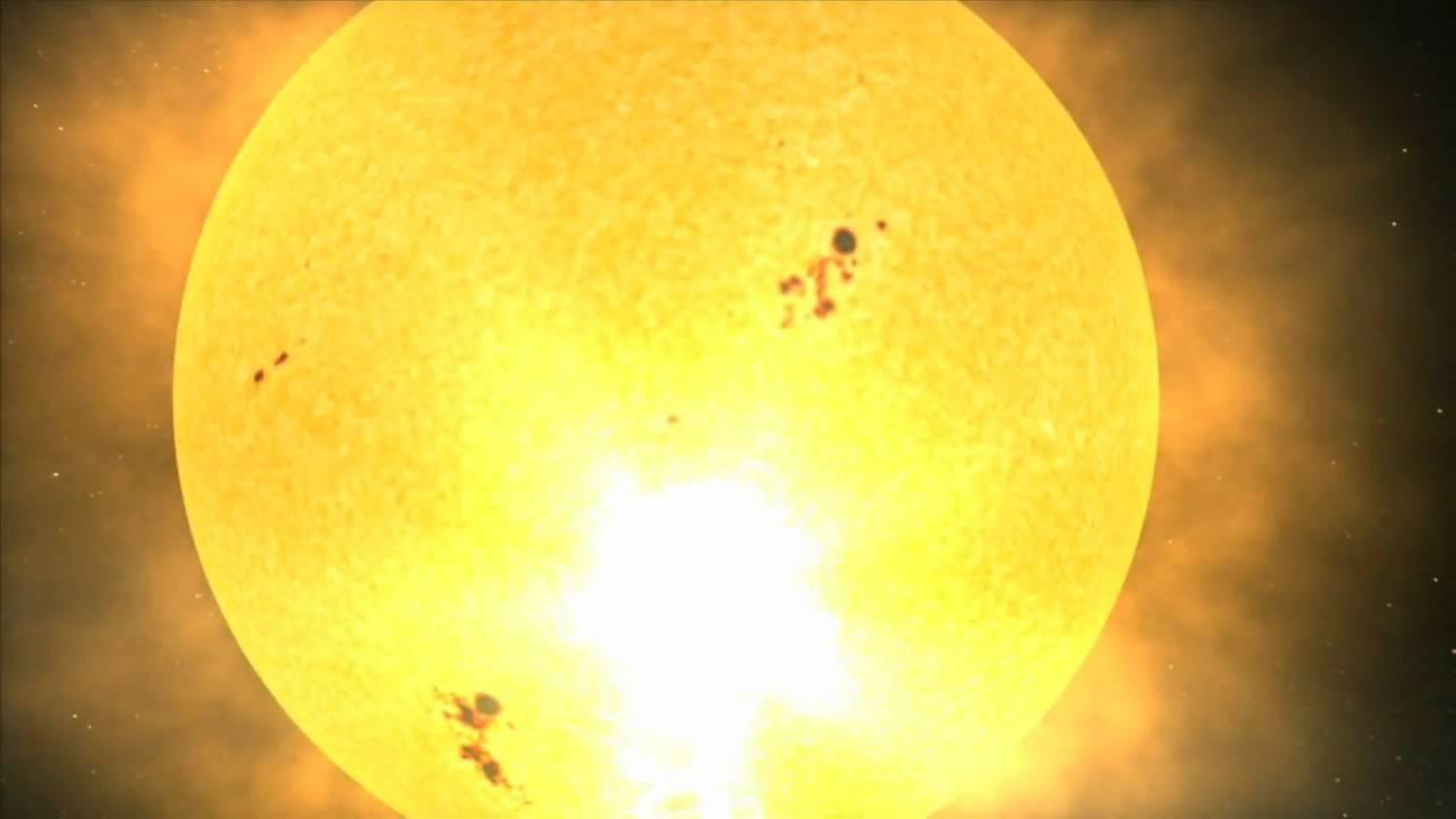

1
00:00:20,540 --> 00:00:18,439
there must be something in a sunspot

2
00:00:23,779 --> 00:00:20,550
that opens up a wealth of knowledge and

3
00:00:26,210 --> 00:00:23,789
even more questions like Galileo before

4
00:00:28,220 --> 00:00:26,220
him german astronomer Samuel Heinrich

5
00:00:31,429 --> 00:00:28,230
Schwab became fascinated with sunspots

6
00:00:34,190 --> 00:00:31,439
from careful observation over 17 years

7
00:00:36,770 --> 00:00:34,200
Schwab found a periodic cycling of the

8
00:00:39,139 --> 00:00:36,780
average number of sunspots in the mid

9
00:00:41,209 --> 00:00:39,149
1800s he and other astronomers found

10
00:00:43,340 --> 00:00:41,219
that the Sun has about an 11-year cycle

11
00:00:45,940 --> 00:00:43,350
between the times when we can observe

12
00:00:48,410 --> 00:00:45,950
the most and the least sunspots

13
00:00:49,880 --> 00:00:48,420

understanding the 11-year solar cycle

14
00:00:52,100 --> 00:00:49,890
becomes very crucial in understanding

15
00:00:54,319 --> 00:00:52,110
the effects of space weather here at

16
00:00:56,479 --> 00:00:54,329
Earth because it really dictates how