
The Sun Song
by the "Chromatics"

1
00:00:00,000 --> 00:00:08,050
Sound Effect "Bell"

2
00:00:08,050 --> 00:00:16,090
Our star the sun is a big ball of gas
and it's 99 percent of our solar's systems mass

3
00:00:16,090 --> 00:00:24,140
It's an average star in our Milky Way
Warming the Earth every day

4
00:00:24,140 --> 00:00:32,180
What powers our Sun and makes it so bright?
Come on and tell me, what makes all that light?

5
00:00:32,180 --> 00:00:40,240
Hans Bethe long ago reached the conclusion
it changes Hydrogen to Helium by nuclear fusion. When fusion takes place

6
00:00:40,240 --> 00:00:48,300
light is created and it makes its way out (although rather belated)
through the Photosphere, that's the part that we see, the light comes out

7
00:00:48,300 --> 00:00:56,360
and shines on you and me. Oooohhh.
About a million Earths could fit in the sun,

8
00:00:56,360 --> 00:01:04,370
but if you were there you wouldn't have much fun.
It's six thousand degrees at the photosphere

9
00:01:04,370 --> 00:01:12,400
and much hotter inside the solar atmosphere. There are a few places where
it's not so hot, like at the center of a big sunspot.

10
00:01:12,400 --> 00:01:20,410
But heat is relative, it's still pretty warm
sitting on a sun spot would do you great harm.

11

00:01:20,410 --> 00:01:28,420
Galileo discovered sunspots.
What are those things, those funny dots?

12
00:01:28,420 --> 00:01:36,420
They're cooler parts, scientists feel,
caused by a stronger magnetic field. The spots move around the

13
00:01:36,420 --> 00:01:44,440
the face of the Sun, proving to all..... solar rotation!
A strange kind of movement, to do a full roll,

14
00:01:44,440 --> 00:01:52,460
25 days in the middle, 36 at the poles.
What about flares?

15
00:01:52,460 --> 00:02:00,470
I've hard of them here. They're like giant explosions in the Chromosphere.
The magnetic fields above those sunspots, reconnecting

16
00:02:00,470 --> 00:02:08,490
again after being in knots. Above the Chromosphere
the Corona is placed, it's millions of degrees and reaches way into

17
00:02:08,490 --> 00:02:16,500
space. It's very thin, but read my lips,
that's the part that you see in a solar eclipse.

18
00:02:16,500 --> 00:02:24,520
That's the end of our song about Mr. Sun.
We hope that you find that learning is fun,

19
00:02:24,520 --> 00:02:32,550
but never look at the Sun you could go blind,
just keep on enjoying that warm sunshine.