

The image features a close-up, curved view of the planet Mars, showing its reddish-brown surface and numerous impact craters. The background is the blackness of space with some distant stars. Overlaid on the left side of the image is the title "NASA's CO2 Conversion Challenge" in a bold, teal, sans-serif font. The text is arranged in four horizontal bands, each with a different background color: red for "NASA's", orange for "CO2", yellow-orange for "Conversion", and yellow for "Challenge".

NASA's
CO2
Conversion
Challenge

1

00:00:00,540 --> 00:00:06,080

On Earth, plants convert CO₂ into some of the essentials we need to survive.

2

00:00:07,140 --> 00:00:10,560

On Mars, there are no plants, but there is a lot of CO₂.

3

00:00:11,200 --> 00:00:15,380

What if there was a way to use Martian CO₂ to create the essentials

4

00:00:15,380 --> 00:00:17,640

we need to survive away from Earth?

5

00:00:18,500 --> 00:00:22,800

If we can find a way to convert carbon dioxide into sugar molecules,

6

00:00:22,800 --> 00:00:25,780

we could feed microorganisms in bioreactors.

7

00:00:25,900 --> 00:00:30,400

These multifunctional bioreactors would act just like little farms on Mars,

8

00:00:30,820 --> 00:00:34,320

creating the resources we need to survive, on demand.

9

00:00:34,700 --> 00:00:38,780

Food, medicine, vitamins and even construction materials.

10

00:00:39,540 --> 00:00:43,740

NASA's CO₂ Conversion Challenge is working to do just that,