

pepper

THE

WITH ALTON BROWN



DEEP SPACE

FOOD CHALLENGE

1

00:00:00,410 --> 00:00:05,227

Recipe: noun. A set of instructions for making or preparing something;

2

00:00:05,227 --> 00:00:06,844

especially a food dish.

3

00:00:07,519 --> 00:00:08,570

Sounds simple enough?

4

00:00:08,570 --> 00:00:12,629

Well there's a lot more to it than just putting some ingredients together.

5

00:00:12,982 --> 00:00:14,451

Hi this is Alton Brown.

6

00:00:14,451 --> 00:00:18,660

In order to successfully create a recipe, say, a grilled cheese sandwich, you'll need

7

00:00:18,660 --> 00:00:20,800

some bread and cheese, of course.

8

00:00:20,800 --> 00:00:22,869

A refrigerator to keep the cheese fresh.

9

00:00:22,869 --> 00:00:24,446

A pan to cook it in.

10

00:00:24,446 --> 00:00:25,955

A source of energy to heat the pan.

11

00:00:25,955 --> 00:00:27,020

A knife to spread some butter.

12

00:00:27,020 --> 00:00:28,529

A spatula to flip it.

13  
00:00:28,529 --> 00:00:31,781  
Spices scoured from the ends of the Earth...  
you get the idea.

14  
00:00:32,047 --> 00:00:34,985  
And how about the food in our recipe.

15  
00:00:35,445 --> 00:00:36,744  
Where did you get it?

16  
00:00:37,095 --> 00:00:38,000  
How did it get there?

17  
00:00:38,000 --> 00:00:39,010  
Where did it come from?

18  
00:00:39,334 --> 00:00:41,242  
What sources were needed to grow it?

19  
00:00:41,243 --> 00:00:42,224  
Produce it?

20  
00:00:42,224 --> 00:00:42,835  
Package it?

21  
00:00:43,141 --> 00:00:43,641  
Preserve it?

22  
00:00:43,872 --> 00:00:46,830  
It's a complicated and intricate network  
of processes

23  
00:00:46,830 --> 00:00:49,488  
to get a simple grilled cheese sandwich on the table.

24  
00:00:49,488 --> 00:00:53,384  
But Earthbound humans have done a pretty good

job of putting systems in place

25

00:00:53,384 --> 00:00:54,921

to get it all done.

26

00:00:55,559 --> 00:00:58,362

But what about spacebound humans?

27

00:00:58,825 --> 00:01:03,923

Difficulty and distance aside, astronauts  
on the International Space Station eat quite

28

00:01:03,923 --> 00:01:06,674

a healthy diet of fresh and freeze-dried foods

29

00:01:06,674 --> 00:01:10,061

thanks to semi-regular shipments originating from Earth.

30

00:01:10,339 --> 00:01:14,493

But to boldly go where no human has gone before

31

00:01:14,493 --> 00:01:18,147

we'll need new and better ways to eat in space.

32

00:01:18,859 --> 00:01:23,903

Future astronauts on, say, a trip to Mars,  
will spend years away from Earth and

33

00:01:23,903 --> 00:01:27,020

that means no quick trips to the grocery store.

34

00:01:27,020 --> 00:01:31,495

They'll have to bring just about everything they'll  
need with them.

35

00:01:32,078 --> 00:01:37,314

Just like on Earth, when we prepare food in  
space, we need not only the food ingredients

36  
00:01:37,314 --> 00:01:43,070  
themselves, but we also need energy, water  
and other materials to transform the ingredients

37  
00:01:43,070 --> 00:01:48,358  
into nutritional — and tasty — meals that  
astronauts will actually want to eat.

38  
00:01:49,098 --> 00:01:55,340  
So how do we reinvent food production systems  
so that they are sustainable and work in space?

39  
00:01:55,830 --> 00:01:57,139  
Well that's where you come in.

40  
00:01:57,750 --> 00:02:01,410  
NASA and the Canadian Space Agency are launching competitions,

41  
00:02:01,410 --> 00:02:03,556  
the Deep Space Food Challenge,

42  
00:02:03,556 --> 00:02:07,667  
and they're offering prize money for  
anyone who can come up with novel ways to

43  
00:02:07,667 --> 00:02:13,380  
keep our astronauts fed on future long duration  
space exploration missions.

44  
00:02:13,917 --> 00:02:19,740  
What's really cool, aside from feeding interplanetary  
humans, is that these space-based food solutions

45  
00:02:19,740 --> 00:02:25,130  
could have transformative impacts on Earth's  
food systems — helping to resolve food insecurities

46  
00:02:25,130 --> 00:02:27,940  
and scarcities across our own planet.

47

00:02:27,941 --> 00:02:29,941

The Deep Space Food Challenge.

48

00:02:30,000 --> 00:02:31,310

Pretty big stuff.