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00:00:00,000 --> 00:00:07,000

Remember, do not try anything you are about to see at home.

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00:00:07,000 --> 00:00:22,000

On this salivating episode of Mythbusters, Adam and Jamie regurgitate a Seinfeld classic.

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00:00:22,000 --> 00:00:23,000

I'm sorry.

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00:00:23,000 --> 00:00:26,000

Is double dipping really germ warfare?

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00:00:27,000 --> 00:00:36,000

Plus, they're falling over themselves, finding out if a banana peel is a guaranteed slapstick wipeout.

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00:00:36,000 --> 00:00:38,000

I've never seen him like that.

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00:00:38,000 --> 00:00:49,000

Meanwhile, Harry Grant and Tori have a blast and cook up trouble as they tackle the myth of homemade diamonds.

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00:00:49,000 --> 00:00:51,000

I'm gonna be rich.

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00:00:51,000 --> 00:01:00,000

So prepare yourselves. There's thrills, spills and the biggest explosion in Mythbusters history.

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00:01:06,000 --> 00:01:08,000

Who are the Mythbusters?

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00:01:08,000 --> 00:01:10,000

Adam Savage.

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00:01:10,000 --> 00:01:12,000

Oh, check out my new bulletproof vest, man!

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00:01:12,000 --> 00:01:13,000

And Jamie Heineman.

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00:01:13,000 --> 00:01:15,000

I usually don't let people do that.

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00:01:15,000 --> 00:01:19,000

Between them more than 30 years of special effects experience.

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00:01:19,000 --> 00:01:21,000

I'm not gonna get tired of that.

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00:01:21,000 --> 00:01:25,000

Joining them, Grant Imahara.

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00:01:25,000 --> 00:01:27,000

You beauty!

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00:01:27,000 --> 00:01:28,000

Tori Bellachy.

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00:01:31,000 --> 00:01:32,000

And Carrie Byron.

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00:01:32,000 --> 00:01:34,000

The question out of here, see?

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00:01:34,000 --> 00:01:38,000

They don't just tell the myths, they put them to the test.

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00:01:50,000 --> 00:01:54,000

Dare I ask why we're juggling bananas?

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00:01:54,000 --> 00:01:58,000

It's because of one of the oldest gags and slapstick comedy that we're gonna test.

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00:01:58,000 --> 00:02:05,000

That every banana peel left on the ground equals someone walking up to it and slipping and falling flat on their keystone.

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00:02:05,000 --> 00:02:07,000

The old slipping on a banana peel routine.

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00:02:07,000 --> 00:02:08,000

Exactly.

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00:02:10,000 --> 00:02:17,000

According to the laws of comedy, a discarded banana peel is an unavoidable fall magnet.

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00:02:18,000 --> 00:02:21,000

But is the peel really a guaranteed guffaw?

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00:02:21,000 --> 00:02:24,000

Or is it a load of shtick?

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00:02:26,000 --> 00:02:27,000

Such a lovely display.

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00:02:27,000 --> 00:02:28,000

Thank you.

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00:02:28,000 --> 00:02:29,000

Where do you think we should start?

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00:02:29,000 --> 00:02:36,000

I'm gonna go out on a limb here and say I think we should peel one of these, put it out on the floor, try slipping on it.

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00:02:36,000 --> 00:02:39,000

No need to overcomplicate things, let's go.

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00:02:39,000 --> 00:02:40,000

Alright.

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00:02:40,000 --> 00:02:49,000

So to find out if a banana peel can topple the Heinemann, Jamie slips into something more comfortable while Adam checks his insurance.

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00:02:49,000 --> 00:02:50,000

Yes.

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00:02:50,000 --> 00:02:51,000

No, one banana.

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00:02:51,000 --> 00:02:54,000

Only one, I'm just gonna place one banana, yeah, he'll be blindfolded.

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00:02:54,000 --> 00:02:58,000

Well, it's just to see if he's gonna slip, you know, if one banana equals one person slipping.

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00:02:58,000 --> 00:02:59,000

Yeah, exactly.

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00:02:59,000 --> 00:03:01,000

Okay, I'll see after it's done.

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00:03:02,000 --> 00:03:03,000

That's the plan.

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00:03:03,000 --> 00:03:10,000

And a blindfolded Jamie won't be able to see the peel, meaning gravity can take its hilarious revenge.

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00:03:10,000 --> 00:03:13,000

You're just gonna take a leisurely walk forward.

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00:03:16,000 --> 00:03:17,000

Alright, stop.

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00:03:20,000 --> 00:03:24,000

But unlike in the movies, Jamie's not hitting his mark.

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00:03:26,000 --> 00:03:29,000

Until finally, bingo.

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00:03:29,000 --> 00:03:32,000

You step right on it, nothing happened.

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00:03:33,000 --> 00:03:37,000

And that's not quite the result the guys were expecting.

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00:03:37,000 --> 00:03:44,000

So I could peel the banana peel when I finally stepped on it, but, you know, you feel something like that you compensate for.

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00:03:44,000 --> 00:03:49,000

At no time did I feel like I was gonna lose it and also end up on my butt.

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00:03:49,000 --> 00:03:55,000

The Heinemann may be stealthy enough to avoid one peel, but surely there's no escaping a fall now.

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00:03:55,000 --> 00:04:05,000

This gauntlet of banana peels with their leathery tops and their slippery bottoms is a virtual lethal gauntlet of slipping and falling.

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00:04:05,000 --> 00:04:07,000

Let's see how the Heinemann does.

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00:04:09,000 --> 00:04:10,000

Go for it.

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00:04:10,000 --> 00:04:15,000

But gauntlet or no gauntlet, Jamie remains unfazed.

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00:04:15,000 --> 00:04:22,000

I think what I need to do from here is actually move quickly enough that it doesn't matter whether I know it's coming or not.

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00:04:22,000 --> 00:04:24,000

If I slip, I'm gonna fall.

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00:04:26,000 --> 00:04:31,000

And even at full speed, there's still no banana.

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00:04:31,000 --> 00:04:32,000

Good job.

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00:04:32,000 --> 00:04:34,000

Oh, it's not looking good for this mint.

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00:04:34,000 --> 00:04:36,000

Can I take this off now?

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00:04:36,000 --> 00:04:37,000

Yes, you can.

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00:04:39,000 --> 00:04:40,000

That's better.

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00:04:40,000 --> 00:04:42,000

Yeah, mustache is all funky.

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00:04:44,000 --> 00:04:45,000

That's better.

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00:04:46,000 --> 00:04:48,000

Well, one banana, no slip.

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00:04:48,000 --> 00:04:50,000

Ten bananas, little bit of slip.

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00:04:50,000 --> 00:04:52,000

Nothing spectacular, even when running.

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00:04:52,000 --> 00:05:00,000

So I think we need to do some testing and find out just how slippery these things actually are when compared to other slippery things.

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00:05:00,000 --> 00:05:04,000

And that means it's time to get scientific.

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There's two kinds of friction we want to look at here.

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00:05:07,000 --> 00:05:11,000

One is called static friction, and that's from a stop to a start.

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00:05:11,000 --> 00:05:19,000

There's a secondary one, which is dynamic or kinetic friction, which is how much resistance the banana peel has to moving while it's moving.

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00:05:19,000 --> 00:05:26,000

And I'm gonna build some rigs to test both and compare banana peels to some other slippery things.

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00:05:27,000 --> 00:05:28,000

Let's get this straight.

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00:05:28,000 --> 00:05:32,000

When you slip on a peel, there are two types of friction in play.

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00:05:32,000 --> 00:05:38,000

First is the static friction, which the banana peel must overcome to start moving.

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00:05:38,000 --> 00:05:43,000

And then once in motion, kinetic friction is the peel's resistance to sliding.

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00:05:43,000 --> 00:05:48,000

And first, to test static friction, Adam's whipped up just the thing.

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00:05:48,000 --> 00:05:54,000

Let's start with this shoe and four pounds of weight in it and see what its static friction angle is.

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00:05:54,000 --> 00:05:55,000

Okay.

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00:05:55,000 --> 00:05:56,000

Ten.

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00:05:56,000 --> 00:05:57,000

Twenty.

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00:05:57,000 --> 00:05:59,000

Forty-five.

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00:05:59,000 --> 00:06:02,000

Forty-five degrees for the shoe.

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00:06:02,000 --> 00:06:04,000

That's the control.

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00:06:04,000 --> 00:06:07,000

And with the banana peel, ten.

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00:06:07,000 --> 00:06:08,000

Fifteen.

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00:06:08,000 --> 00:06:10,000

There it is.

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00:06:10,000 --> 00:06:12,000

Yep, fifteen degrees.

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00:06:12,000 --> 00:06:16,000

So the peel cuts the static friction by a factor of three.

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00:06:16,000 --> 00:06:19,000

What's slicker than a banana peel?

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00:06:19,000 --> 00:06:24,000

Well, I happen to have some animal birthing agent laying around.

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00:06:24,000 --> 00:06:33,000

By comparing them with this super slick lube, the boys can work out where the banana peel sits on the, uh, slipperiness scale.

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00:06:33,000 --> 00:06:35,000

Okay.

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00:06:35,000 --> 00:06:41,000

Five, ten, fifteen, twenty.

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00:06:41,000 --> 00:06:44,000

I was gonna stop it, but I didn't want to touch it.

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00:06:45,000 --> 00:06:48,000

The physics of this slapstick myth are looking good.

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00:06:48,000 --> 00:06:53,000

Surprisingly, the static friction of the banana peel is lower than the lube.

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00:06:53,000 --> 00:06:56,000

However, there's one more thing to test.

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00:06:56,000 --> 00:06:59,000

And that's the kinetic friction.

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00:06:59,000 --> 00:07:06,000

This is a device for measuring just that, the amount of force it takes to pull it once you've overcome the static friction.

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00:07:06,000 --> 00:07:09,000

Once again, the shoe is their baseline.

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00:07:09,000 --> 00:07:12,000

Jamie gives it a nudge to get it moving.

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00:07:14,000 --> 00:07:16,000

I'd call it about fourteen pounds.

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00:07:16,000 --> 00:07:18,000

That looks about right to me.

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00:07:18,000 --> 00:07:21,000

But with the banana peel, that number halves.

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00:07:23,000 --> 00:07:25,000

Seven pounds.

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00:07:26,000 --> 00:07:28,000

Finally, it's the slippery lube.

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00:07:28,000 --> 00:07:30,000

That is nasty.

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00:07:30,000 --> 00:07:31,000

Go for it.

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00:07:31,000 --> 00:07:32,000

And go.

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00:07:33,000 --> 00:07:36,000

That was consistently five across the whole thing.

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00:07:36,000 --> 00:07:38,000

So that takes care of the data.

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00:07:38,000 --> 00:07:40,000

But what does it all mean?

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00:07:40,000 --> 00:07:43,000

The banana peel is not the slipperiest thing we could find.

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00:07:43,000 --> 00:07:48,000

We found some lubricant that's actually slipperier, but the banana peel did prospectively.

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00:07:48,000 --> 00:07:53,000

However, I don't feel like we can call this one until we test it full size, of course.

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00:07:53,000 --> 00:07:55,000

Where do we go from here?

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00:07:55,000 --> 00:08:00,000

Well, you know, it's funny. With all the testing we've done so far, we still have yet to see anyone slip.

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00:08:00,000 --> 00:08:03,000

So what you're saying is somebody needs to fall on their ass?

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00:08:03,000 --> 00:08:06,000

Absolutely, but we're gonna need some more bananas.

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00:08:06,000 --> 00:08:08,000

Lots more bananas.

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00:08:08,000 --> 00:08:09,000

Yeah.

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00:08:10,000 --> 00:08:11,000

Yeah.

129

00:08:16,000 --> 00:08:18,000

What's up with the bling?

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00:08:18,000 --> 00:08:21,000

We did Robin and Dewey car. Yeah.

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00:08:21,000 --> 00:08:23,000

Nah, just kidding. It's for our next man.

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00:08:23,000 --> 00:08:25,000

Okay, why?

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00:08:25,000 --> 00:08:28,000

Because we're trying to find out if you can make diamonds.

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00:08:28,000 --> 00:08:30,000

Aren't there companies that already do that?

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00:08:30,000 --> 00:08:32,000

Yeah, but they're like million dollar machines.

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00:08:32,000 --> 00:08:34,000

I mean, we're gonna do this different.

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00:08:34,000 --> 00:08:38,000

We want to see if you can make diamonds on your own in the comfort of your own home.

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00:08:38,000 --> 00:08:40,000

Okay, so homemade diamonds.

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00:08:40,000 --> 00:08:45,000

Oh yeah, there's all these schemes on the internet where you can make them in your own kitchen.

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00:08:45,000 --> 00:08:47,000

You don't need any of these fancy machines.

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00:08:47,000 --> 00:08:49,000

And in the end, you get diamonds.

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00:08:49,000 --> 00:08:51,000

Yeah, we have three different techniques.

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00:08:51,000 --> 00:08:53,000

One is using peanut butter and a microwave.

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00:08:53,000 --> 00:08:55,000

Another one is using molten iron.

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00:08:55,000 --> 00:09:00,000

And then finally we got one from the TV show CSI and you use nothing but graphite and a pressure cooker.

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00:09:00,000 --> 00:09:02,000

Okay, let's put them to the test.

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00:09:02,000 --> 00:09:03,000

We know if this works.

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00:09:03,000 --> 00:09:05,000

In the end, we can be millionaires.

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00:09:05,000 --> 00:09:07,000

Yeah!

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00:09:09,000 --> 00:09:16,000

The traditional way of getting your hands on a diamond used to be either mining or marriage.

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00:09:16,000 --> 00:09:25,000

But modern science has brought us synthetic diamonds created in labs using multi-million dollar technology.

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00:09:25,000 --> 00:09:32,000

However, according to this myth, you can make your own precious gems, all from the comfort of your own home.

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00:09:33,000 --> 00:09:35,000

Okay, well there are three recipes.

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00:09:35,000 --> 00:09:38,000

So why don't we each take a technique and have a little competition?

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00:09:38,000 --> 00:09:41,000

Okay, well in that case, let's make a winner takes all.

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00:09:41,000 --> 00:09:44,000

Whoever makes the most diamonds with the greatest value keeps everything.

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00:09:44,000 --> 00:09:46,000

I like a good competition.

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00:09:46,000 --> 00:09:48,000

I'm going to put my hand up for peanut butter.

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00:09:48,000 --> 00:09:51,000

Alright, well I'll investigate the CSI method.

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00:09:51,000 --> 00:09:54,000

Well I guess that leaves me with the iron and graphite.

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00:09:54,000 --> 00:09:58,000

But watch out, because I'm going to blow you away with my bling.

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00:09:58,000 --> 00:09:59,000

Oh yeah?

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00:09:59,000 --> 00:10:01,000

I guess the proof.

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00:10:01,000 --> 00:10:03,000

Is in the pudding.

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00:10:03,000 --> 00:10:09,000

Tories come over all CSI, which is apt, given that this myth will have murder,

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00:10:09,000 --> 00:10:10,000

Dead,

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00:10:10,000 --> 00:10:11,000

BANG!

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00:10:11,000 --> 00:10:13,000

Double dealing,

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00:10:13,000 --> 00:10:15,000

plenty of shots,

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00:10:15,000 --> 00:10:19,000

and the mother of all climaxes.

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00:10:22,000 --> 00:10:26,000

Coming up on Mythbusters, just how slippery are banana peels?

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00:10:26,000 --> 00:10:29,000

We're about to perform the definitive test to find out.

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00:10:29,000 --> 00:10:33,000

And later, the biggest blast in Mythbusters history.

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00:10:48,000 --> 00:10:51,000

CSI Miami makes it look so easy.

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00:10:51,000 --> 00:10:56,000

According to the crime lab, all you need is pure graphite, a ceramic box,

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00:10:56,000 --> 00:11:00,000

some mysterious chemicals, and a pressure cooker.

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00:11:00,000 --> 00:11:04,000

Then, after three days, hey presto.

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00:11:04,000 --> 00:11:05,000

That is this technique.

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00:11:05,000 --> 00:11:08,000

Just like nature, only a million times faster.

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00:11:09,000 --> 00:11:13,000

Or is it like science, only a million times fabricated?

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00:11:14,000 --> 00:11:19,000

For an expert opinion, Torey heads to UC Berkeley to see Dr. Michael Franklok.

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00:11:19,000 --> 00:11:22,000

So if I was going to do this, what kind of chemicals do you think I should use?

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00:11:22,000 --> 00:11:27,000

Metals like nickel, cobalt, and iron, so I would advise you to start from one of those,

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00:11:27,000 --> 00:11:29,000

and it should be a salt in its active form.

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00:11:29,000 --> 00:11:34,000

You still need to add some initial seeds, initial, some small diamonds.

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00:11:34,000 --> 00:11:36,000

So you need a little piece of diamond to start the diamond?

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00:11:36,000 --> 00:11:43,000

If you already start with a little seed, even of poor quality, it can grow and get bigger.

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00:11:43,000 --> 00:11:47,000

Dr. Franklok's advice has given Torey the competitive edge.

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00:11:47,000 --> 00:11:50,000

And while he's off to gather his CSI supplies...

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00:11:50,000 --> 00:11:52,000

That is the pressure pot.

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00:11:52,000 --> 00:11:57,000

Carrie weighs in with a recipe that puts the nuts into the peanut butter.

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00:11:57,000 --> 00:12:00,000

To turn ordinary peanut butter into diamonds.

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00:12:00,000 --> 00:12:03,000

There's a very simple recipe all over the internet.

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00:12:03,000 --> 00:12:08,000

You take two charcoal briquettes, you cover them with four ounces of peanut butter,

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00:12:08,000 --> 00:12:14,000

put them in a microwave safe dish, and then you microwave them for 60 minutes in 10-minute increments.

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00:12:15,000 --> 00:12:19,000

Sounds crazy, but according to these internet hipsters...

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00:12:19,000 --> 00:12:22,000

You want to take about four ounces of peanut butter.

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00:12:22,000 --> 00:12:27,000

All that stands between you and millions of dollars is a microwave.

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00:12:27,000 --> 00:12:34,000

Still, unsurprisingly, after just five minutes on high, things go up in smoke.

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00:12:34,000 --> 00:12:38,000

Looks like I'll be getting some more glassware and trying this again.

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00:12:38,000 --> 00:12:40,000

Is that what my diamonds?

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00:12:40,000 --> 00:12:42,000

Yes.

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00:12:43,000 --> 00:12:48,000

Eventually, three attempts, three dishes, and two microwaves later,

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00:12:48,000 --> 00:12:51,000

Carrie has her alleged diamonds in the rough.

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00:12:51,000 --> 00:12:56,000

I don't think I see any diamonds yet, but we have one more process to go.

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00:12:56,000 --> 00:13:01,000

And that process is to burn off the excess carbon.

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00:13:01,000 --> 00:13:03,000

They say diamonds are forever.

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00:13:03,000 --> 00:13:06,000

I mean, they take forever to create.

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00:13:06,000 --> 00:13:10,000

Well, patience is a virtue, but does it pay?

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00:13:10,000 --> 00:13:15,000

Maybe the diamonds are microscopic, but they're supposed to be the size of fennel seeds.

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00:13:15,000 --> 00:13:19,000

I'm not seeing them so far. I am seeing a lot of burnt peanut butter.

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00:13:19,000 --> 00:13:22,000

Still, Carrie's not out of the contest yet.

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00:13:22,000 --> 00:13:27,000

She can't tell the diamonds from the dirt, but maybe an expert can.

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00:13:27,000 --> 00:13:32,000

Everyone knows monkeys go ape for bananas.

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00:13:32,000 --> 00:13:36,000

They're a delicious treat for primates and people alike.

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00:13:36,000 --> 00:13:41,000

But in slapstick comedy, the banana serves a more sinister purpose.

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00:13:41,000 --> 00:13:48,000

But while you can lead a Heinemann to a banana skin, you can't make him fall.

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00:13:48,000 --> 00:13:53,000

So now the boys are upping the ante on this banana skin.

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00:13:53,000 --> 00:13:56,000

We expect that we're going to be falling down a lot.

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00:13:56,000 --> 00:14:00,000

So with that in mind, we're building a special floor so we don't hurt ourselves.

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00:14:00,000 --> 00:14:02,000

This is what it's made of.

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00:14:02,000 --> 00:14:07,000

These springy tires are layer one of our sprung floor.

223

00:14:07,000 --> 00:14:11,000

All this wood right here is layer two.

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00:14:11,000 --> 00:14:16,000

And this, Linolium here, this is layer three.

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00:14:16,000 --> 00:14:19,000

The boys have busted the banana.

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00:14:19,000 --> 00:14:24,000

And now they have the perfect venue for busting their butt.

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00:14:24,000 --> 00:14:29,000

This may look like a completed sprung floor, but in fact it's missing one element,

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00:14:29,000 --> 00:14:31,000

which is banana peels.

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00:14:31,000 --> 00:14:34,000

Hundreds and hundreds and hundreds of banana peels.

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00:14:34,000 --> 00:14:38,000

We're going to lay them out here like an obstacle course of comedy death,

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00:14:38,000 --> 00:14:41,000

and then we're going to run a little like this.

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00:14:41,000 --> 00:14:43,000

Go!

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00:14:43,000 --> 00:14:49,000

That's right, they're throwing this banana peel myth one last lifeline with the ultimate test.

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00:14:49,000 --> 00:14:51,000

Well, we've got a truckload full of bananas.

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00:14:51,000 --> 00:14:53,000

We have our rink set up.

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00:14:53,000 --> 00:14:56,000

The only thing now is that we need to peel all these bananas,

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00:14:56,000 --> 00:15:01,000

so we either need a whole lot of monkeys or some volunteers.

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00:15:01,000 --> 00:15:06,000

Well, the monkeys had a prior engagement, so the guys settled for the volunteers.

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00:15:06,000 --> 00:15:08,000

I'm going to place them here.

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00:15:08,000 --> 00:15:12,000

The monkeys had a prior engagement, so the guys settled for the volunteers.

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00:15:12,000 --> 00:15:17,000

I'm going to place eight of these cones on the rink, each one with a raw egg on top.

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00:15:17,000 --> 00:15:20,000

Our task will be to gather up all eight raw eggs,

243

00:15:20,000 --> 00:15:24,000

running back and forth, back and forth, back and forth as fast as we can without...

244

00:15:24,000 --> 00:15:27,000

I can't break this egg!

245

00:15:27,000 --> 00:15:32,000

And when we're all done, we ring the bell and that stops the timer.

246

00:15:32,000 --> 00:15:37,000

With the rink now full, Jamie's Keester is well padded,

247

00:15:37,000 --> 00:15:43,000

as this test should give the peels the best chance to redeem their slapstick reputation.

248

00:15:43,000 --> 00:15:47,000

But if he doesn't fall on his butt, then this myth is busted.

249

00:15:47,000 --> 00:15:51,000

Okay, banana peel speed test. Are you ready?

250

00:15:55,000 --> 00:15:57,000

Oh, ho, ho, ho! Five seconds!

251

00:15:59,000 --> 00:16:00,000

Ten seconds!

252

00:16:03,000 --> 00:16:04,000

Fifteen seconds!

253

00:16:04,000 --> 00:16:06,000

He's not falling down!

254

00:16:06,000 --> 00:16:11,000

He's done it again. Jamie's gravity-defying powers are spooky.

255

00:16:15,000 --> 00:16:18,000

Forty seconds! Nicely done!

256

00:16:20,000 --> 00:16:23,000

Of course, this test isn't about Admini racing.

257

00:16:23,000 --> 00:16:26,000

It's about how slippery banana peels are.

258

00:16:26,000 --> 00:16:33,000

And they are. I had to be really, really careful not slide, and even then, I slid quite a bit.

259

00:16:34,000 --> 00:16:42,000

But that caution invalidated Jamie's test, because according to the laws of comedy, he shouldn't be expecting to fall.

260

00:16:42,000 --> 00:16:46,000

So for a repeat performance, he takes off the brakes.

261

00:16:46,000 --> 00:16:48,000

Okay, Jamie on turbo.

262

00:16:52,000 --> 00:16:56,000

At long last, the banana peels take their revenge.

263

00:16:57,000 --> 00:17:00,000

And although he valiantly attempts to recover...

264

00:17:01,000 --> 00:17:04,000

Go, go, go! Twenty-nine seconds! You can still beat your time!

265

00:17:09,000 --> 00:17:12,000

He just can't overcome the giggles.

266

00:17:12,000 --> 00:17:14,000

I've never seen him like that.

267

00:17:15,000 --> 00:17:19,000

And with no complete data, it's all down to Adam.

268

00:17:19,000 --> 00:17:25,000

Okay, this is Adam's banana peel speed test in three, two, one.

269

00:17:25,000 --> 00:17:26,000

And the results...

270

00:17:28,000 --> 00:17:29,000

Speak for themselves.

271

00:17:30,000 --> 00:17:31,000

Oh!

272

00:17:39,000 --> 00:17:40,000

Hurry up!

273

00:17:42,000 --> 00:17:44,000

Fifty-two point two seconds.

274

00:17:44,000 --> 00:17:46,000

That was so much fun!

275

00:17:47,000 --> 00:17:50,000

That six falls in less than a minute.

276

00:17:50,000 --> 00:17:55,000

Which means that this myth is back in plausible territory.

277

00:17:55,000 --> 00:18:00,000

The real question is, how do they compare against the ultimate slipperiness?

278

00:18:00,000 --> 00:18:03,000

And that's pretty much what the next test is all about.

279

00:18:03,000 --> 00:18:08,000

After the break, Tori's diamond recipe takes a shocking turn.

280

00:18:08,000 --> 00:18:12,000

And the banana peel flip hits the skips.

281

00:18:12,000 --> 00:18:15,000

Planet Earth is a violent place.

282

00:18:15,000 --> 00:18:18,000

And deep below ground, it gets worse.

283

00:18:18,000 --> 00:18:24,000

Here, immense heat and pressure transform carbon into a girl's best friend.

284

00:18:24,000 --> 00:18:28,000

But perhaps that's not the only way to make diamonds.

285

00:18:28,000 --> 00:18:32,000

Well, the Mythbusters are competing to find out.

286

00:18:32,000 --> 00:18:36,000

But the truth is, the truth is that the planet Earth is a violent place.

287

00:18:36,000 --> 00:18:39,000

And deep below ground, it gets worse.

288

00:18:39,000 --> 00:18:42,000

Well, the Mythbusters are competing to find out.

289

00:18:42,000 --> 00:18:45,000

Carrie's chances appear slim.

290

00:18:45,000 --> 00:18:46,000

I don't think I see any diamonds yet.

291

00:18:46,000 --> 00:18:48,000

But Tori's done his research.

292

00:18:48,000 --> 00:18:53,000

And he now has a solid lead on that annoyingly vague CSI recipe.

293

00:18:53,000 --> 00:18:57,000

Now, I have everything I need to start making diamonds.

294

00:18:57,000 --> 00:18:59,000

First, I have my pressure cooker.

295

00:18:59,000 --> 00:19:00,000

I have my ingredients.

296

00:19:00,000 --> 00:19:02,000

I have my hunk of graphite.

297

00:19:02,000 --> 00:19:05,000

The chemical that I'm going to use is ferric nitrate.

298

00:19:05,000 --> 00:19:13,000

What I'm going to do is stick this and that in this, put it in that.

299

00:19:13,000 --> 00:19:16,000

And that's as specific as it gets.

300

00:19:16,000 --> 00:19:20,000

But let's not forget the most important ingredient, a diamond seed.

301

00:19:20,000 --> 00:19:24,000

Without it, this recipe has no chance of working.

302

00:19:24,000 --> 00:19:28,000

For safety, Tori rigs a stun gun.

303

00:19:28,000 --> 00:19:30,000

Yeah, it's been a while since we used one of these.

304

00:19:30,000 --> 00:19:32,000

And I kind of forget what it feels like.

305

00:19:32,000 --> 00:19:37,000

And lights the gas from outside the bunker.

306

00:19:37,000 --> 00:19:39,000

I'll leave it there for three days.

307

00:19:39,000 --> 00:19:43,000

And then at the end of that, check and see if I've made any diamonds.

308

00:19:43,000 --> 00:19:49,000

And while Tori waits, grants off to the blacksmith for his shot at diamonds.

309

00:19:49,000 --> 00:19:53,000

So to execute this diamond recipe, we need to melt iron.

310

00:19:53,000 --> 00:19:55,000

And to do that, you need a foundry.

311

00:19:55,000 --> 00:19:57,000

We don't have a foundry at Mythbusters,

312

00:19:57,000 --> 00:20:01,000

but we've come to a place that does have a foundry, the Crucible.

313

00:20:01,000 --> 00:20:07,000

Supposedly, this recipe replicates the heat and pressure that make natural diamonds.

314

00:20:07,000 --> 00:20:12,000

All you need to do is melt graphite into molten iron and quench the mixture.

315

00:20:12,000 --> 00:20:19,000

Then just dissolve the iron in acid and voila, your very own sparkling gemstones.

316

00:20:19,000 --> 00:20:25,000

So to get this recipe fired up, Grant enlists master smelter Nick DiFilippo.

317

00:20:25,000 --> 00:20:26,000

All right.

318

00:20:26,000 --> 00:20:29,000

So let's dig up.

319

00:20:29,000 --> 00:20:35,000

The graphite and iron go into the furnace to be heated to 2,500 degrees.

320

00:20:35,000 --> 00:20:47,000

Make me diamonds!

321

00:20:47,000 --> 00:20:54,000

And at that heat, Grant's stretching the rules of the homemade diamonds contest just a touch.

322

00:20:54,000 --> 00:20:58,000

But after 20 minutes, it's the moment of truth.

323

00:20:58,000 --> 00:21:00,000

So this is it. Now the pour, right?

324

00:21:00,000 --> 00:21:01,000

Yep, here we go.

325

00:21:01,000 --> 00:21:04,000

There's the iron.

326

00:21:04,000 --> 00:21:10,000

As the iron hits the water, the contraction of the metal should apparently be forming diamonds.

327

00:21:10,000 --> 00:21:15,000

And after waiting for the iron to cool, it's time to harvest the spoils.

328

00:21:15,000 --> 00:21:18,000

Rich! I'm gonna be rich!

329

00:21:18,000 --> 00:21:21,000

Finally, this gig's really paying off.

330

00:21:21,000 --> 00:21:24,000

Okay, Grant could be on to a winner.

331

00:21:24,000 --> 00:21:29,000

So, booty and toe, he heads home to iron out the details.

332

00:21:29,000 --> 00:21:35,000

The idea is that at this point, your diamonds have already been made.

333

00:21:35,000 --> 00:21:41,000

It's just that they're encased in this iron and you have to get the iron off in order to get the diamonds.

334

00:21:41,000 --> 00:21:44,000

And Grant's not just outside for the view.

335

00:21:44,000 --> 00:21:49,000

The iron stripper is super concentrated hydrochloric acid.

336

00:21:49,000 --> 00:21:52,000

But first impressions are a little disappointing.

337

00:21:52,000 --> 00:21:56,000

There's bubbles aplenty, but not a glimmer of glitz.

338

00:21:56,000 --> 00:22:04,000

Right now, it looks like a roiling soup of butternut squash, but not quite that appetizing.

339

00:22:04,000 --> 00:22:06,000

There's gotta be a fortune in there somewhere.

340

00:22:06,000 --> 00:22:10,000

Well, Grant, anything's possible.

341

00:22:10,000 --> 00:22:20,000

So, I've let my iron dissolve overnight in the acid, and now it's time to harvest my diamonds.

342

00:22:20,000 --> 00:22:25,000

Grant neutralizes the acid, but the results are low on sparkle.

343

00:22:25,000 --> 00:22:33,000

I think what we're gonna have to do is take this somewhere where they can see if there's a diamond hidden somewhere in the rough.

344

00:22:33,000 --> 00:22:36,000

If they're in there, they're hidden well.

345

00:22:41,000 --> 00:22:46,000

The Mythbusters are tackling the slapstick favorite slipping on a banana peel.

346

00:22:46,000 --> 00:22:49,000

Thirty-seven! Come on!

347

00:22:49,000 --> 00:22:55,000

And while the skins certainly are slippery, the fun ain't over yet.

348

00:22:55,000 --> 00:23:00,000

We wanted to compare the slipperiness of bananas to something that was ultimately slippery.

349

00:23:00,000 --> 00:23:05,000

And we went looking and we found this lubricant it's used to help animals give birth.

350

00:23:05,000 --> 00:23:09,000

We're gonna spread it out on this field and hilarity will ensue.

351

00:23:09,000 --> 00:23:17,000

By comparing the peels to the ultra-slick lube, the guys can find out just how slippery a banana peel really is.

352

00:23:17,000 --> 00:23:20,000

Okay, commencing the slime.

353

00:23:21,000 --> 00:23:25,000

After a quick squirt, the rink is ready for testing.

354

00:23:25,000 --> 00:23:28,000

And by now, well, you know the drill.

355

00:23:28,000 --> 00:23:31,000

Super-duper lube, starting.

356

00:23:36,000 --> 00:23:41,000

And it's a hop, a skid, and a thud, till the lube takes Jamie out.

357

00:23:43,000 --> 00:23:46,000

Come on, get up, get up, get up! Thirty-seven seconds!

358

00:23:47,000 --> 00:23:50,000

Whoa!

359

00:23:56,000 --> 00:24:03,000

That's only two falls for Jamie, but since he didn't finish bananas, it's down to Adam for the final test.

360

00:24:03,000 --> 00:24:05,000

Be careful, old buddy.

361

00:24:05,000 --> 00:24:08,000

Okay, in three, two, one.

362

00:24:09,000 --> 00:24:12,000

Whoa! Jesus, bro!

363

00:24:12,000 --> 00:24:15,000

It's like ice skating!

364

00:24:16,000 --> 00:24:19,000

I am almost no control.

365

00:24:19,000 --> 00:24:21,000

Twenty-two seconds.

366

00:24:21,000 --> 00:24:26,000

That's fall number one, and I think the tally should take it from here.

367

00:24:40,000 --> 00:24:41,000

What was my time?

368

00:24:41,000 --> 00:24:43,000

One minute, twenty seconds.

369

00:24:43,000 --> 00:24:47,000

That was no faking, man. It gets worse the farther you go.

370

00:24:48,000 --> 00:24:56,000

Clearly, with two more tumbles and an extra thirty seconds on the clock, falling down with the lube was practically compulsory.

371

00:24:56,000 --> 00:25:00,000

If I had to give it a rating, I'd call our birthing agent a nine.

372

00:25:00,000 --> 00:25:05,000

I could conceive of something more slippery, like a field of roller skates.

373

00:25:05,000 --> 00:25:09,000

But within that, I'd say that bananas were easily a six.

374

00:25:09,000 --> 00:25:11,000

So, how do you want to call this one?

375

00:25:11,000 --> 00:25:13,000

What exactly was the myth we started out with?

376

00:25:13,000 --> 00:25:19,000

Okay, according to the laws of comedy, the myth is that one banana peel plus one person equals one person on their butt.

377

00:25:19,000 --> 00:25:25,000

Well, then we'd have to call it busted, because a banana peel was definitely not a guarantee that you were going to fall.

378

00:25:25,000 --> 00:25:31,000

But I do have to say that with their leathery top and that permanently lubricated underside, they're perfect for slipping on.

379

00:25:31,000 --> 00:25:33,000

I'd say this is busted, but only just.

380

00:25:33,000 --> 00:25:34,000

Agreed.

381

00:25:34,000 --> 00:25:39,000

Next up, the boys dip into a Seinfeld classic.

382

00:25:39,000 --> 00:25:40,000

And...

383

00:25:40,000 --> 00:25:47,000

The biggest boom in the history of Mythbusters.

384

00:25:47,000 --> 00:25:53,000

It may not look like it, but we're professionals. Do us a favor.

385

00:25:53,000 --> 00:25:55,000

Don't try this at home! Whoa!

386

00:25:55,000 --> 00:26:02,000

The banana peel flip may be busted, but the guys are taking a bite out of something else.

387

00:26:02,000 --> 00:26:03,000

I've got a good one.

388

00:26:03,000 --> 00:26:04,000

Yeah? What's that?

389

00:26:04,000 --> 00:26:05,000

Double dipping.

390

00:26:05,000 --> 00:26:11,000

Oh, that you can't dip, bite, and dipping a second time like in Seinfeld.

391

00:26:11,000 --> 00:26:16,000

Exactly. The myth was that one person was going to fall.

392

00:26:16,000 --> 00:26:19,000

And then the other person was going to be like,

393

00:26:19,000 --> 00:26:24,000

that you can't dip, bite, and dipping a second time like in Seinfeld.

394

00:26:24,000 --> 00:26:28,000

Exactly. The myth's been around for a lot longer than that, but Seinfeld popularized it.

395

00:26:28,000 --> 00:26:31,000

If I remember correctly, when George is accused of double dipping,

396

00:26:31,000 --> 00:26:38,000

the guy tells him that dipping, biting, and dipping again is akin to putting his whole mouth in the bowl of dip.

397

00:26:38,000 --> 00:26:43,000

It's a classic Seinfeld moment that the fans have begged us to test.

398

00:26:43,000 --> 00:26:48,000

An unwitting George finds himself breaking dip dunking etiquette.

399

00:26:48,000 --> 00:26:53,000

What? Did you just double dip that chip?

400

00:26:53,000 --> 00:26:55,000

You double dipped the chip?

401

00:26:55,000 --> 00:26:58,000

By dipping the chip twice, supposedly...

402

00:26:58,000 --> 00:27:01,000

That's like putting your whole mouth right in the dip.

403

00:27:01,000 --> 00:27:06,000

...is this bacterial baloney, or is there something to this Seinfeld saga?

404

00:27:06,000 --> 00:27:08,000

Just take one dip and end it.

405

00:27:09,000 --> 00:27:16,000

The theory is that double dipping transfers microbes from your mouth into the dip and then onto other people.

406

00:27:16,000 --> 00:27:22,000

But can the germs inside your mouth really hit your ride on your chip of choice?

407

00:27:22,000 --> 00:27:24,000

What's your plan on this one?

408

00:27:24,000 --> 00:27:29,000

We've got some chips, we've got some dip, and I think it's time to bring back our old friends, the Petri dishes.

409

00:27:29,000 --> 00:27:34,000

So we'll do a control, we'll do double dipping, and then we've got to put our old mouths in the bowl.

410

00:27:34,000 --> 00:27:36,000

We'll get separate bowls.

411

00:27:36,000 --> 00:27:37,000

You want separate bowls?

412

00:27:37,000 --> 00:27:38,000

Yeah.

413

00:27:38,000 --> 00:27:39,000

Okay.

414

00:27:39,000 --> 00:27:45,000

Separate bowls it is, and with a bunch of soy agar Petri dishes primed for bacterial growth,

415

00:27:45,000 --> 00:27:48,000

it's time to double dip for science.

416

00:27:48,000 --> 00:27:52,000

We've got two kinds of dip, a cream based dip, a salsa based dip, and a bowl full of chips.

417

00:27:52,000 --> 00:27:54,000

Let me tell you how we're going to do this experiment.

418

00:27:54,000 --> 00:28:01,000

First, before we touch anything, we're going to stick a swab in each of these kinds of dips and put them on an agar plate and try and culture them.

419

00:28:01,000 --> 00:28:03,000

That's our control.

420

00:28:03,000 --> 00:28:05,000

Then we're going to double dip in these dips.

421

00:28:05,000 --> 00:28:07,000

We're going to dip, bite, dip again.

422

00:28:07,000 --> 00:28:12,000

Once we've done that, we're going to culture them again and see if we've added any bacteria.

423

00:28:13,000 --> 00:28:19,000

But the story includes a third wrinkle in which the guy says the double dipping is like putting your whole mouth into the bowl.

424

00:28:19,000 --> 00:28:20,000

So we're going to do that.

425

00:28:20,000 --> 00:28:23,000

We're going to take as much of the dip in our mouths as possible.

426

00:28:23,000 --> 00:28:24,000

It's going to be really gross.

427

00:28:24,000 --> 00:28:30,000

We're going to spin it back out and we're going to culture it one last time and see if that's equivalent to double dipping.

428

00:28:30,000 --> 00:28:32,000

And it really is that simple.

429

00:28:32,000 --> 00:28:37,000

With each MythBusters swabbing three experiments, they're ready to incubate.

430

00:28:38,000 --> 00:28:39,000

Perfect.

431

00:28:39,000 --> 00:28:41,000

It's right around 98 degrees.

432

00:28:41,000 --> 00:28:44,000

So we want it right about the same as the human body, huh?

433

00:28:44,000 --> 00:28:46,000

Yeah, for roughly a day.

434

00:28:46,000 --> 00:28:47,000

We'll come back tomorrow and check it out.

435

00:28:47,000 --> 00:28:48,000

Okay.

436

00:28:48,000 --> 00:28:54,000

And thanks to the wonders of editing, time's up for the breeding bacteria.

437

00:28:54,000 --> 00:28:58,000

The biohazards are ready for their close-up, but there's a problem.

438

00:29:00,000 --> 00:29:04,000

That's the control and there's already bacteria in the salsa.

439

00:29:05,000 --> 00:29:10,000

They check all the salsa-only controls and everyone tells the same story.

440

00:29:11,000 --> 00:29:16,000

Even with no human saliva, the dips are already brimming with bugs.

441

00:29:17,000 --> 00:29:21,000

Clearly, we are going to need to do this test again and remove some variables.

442

00:29:22,000 --> 00:29:28,000

Yep, with the control showing more bacterial growth than Adam's feet, the boys are going to need a plan B.

443

00:29:31,000 --> 00:29:35,000

I really liked that bit where we took that thing and we put the thing on it and did that thing to it.

444

00:29:35,000 --> 00:29:37,000

Yeah, didn't make it into the show.

445

00:29:37,000 --> 00:29:38,000

What?

446

00:29:38,000 --> 00:29:39,000

Yeah, sorry.

447

00:29:39,000 --> 00:29:45,000

But they put it on the web, so fans who want to see it can log on to [thediscovery.com slash mythbusters](http://thediscovery.com/mythbusters) to check it out.

448

00:29:49,000 --> 00:29:53,000

The mythbusters are battling it out, making homegrown diamonds.

449

00:29:53,000 --> 00:29:57,000

And so far, their crusade is a little short on bling.

450

00:29:57,000 --> 00:30:00,000

There's got to be a fortune in there somewhere.

451

00:30:00,000 --> 00:30:03,000

But Tori's not finished yet.

452

00:30:04,000 --> 00:30:13,000

His CSI recipe was simple, just graphite and chemicals inside a pressure cooker and in three days, you'll have a rock.

453

00:30:13,000 --> 00:30:16,000

So, was it a recipe for success?

454

00:30:16,000 --> 00:30:21,000

Alright, so it's been three days and now it's time to check my diamonds.

455

00:30:21,000 --> 00:30:27,000

The real question is, what am I going to do with all my money once I start my diamond company?

456

00:30:27,000 --> 00:30:30,000

I wouldn't count your diamonds just yet, Tori.

457

00:30:31,000 --> 00:30:33,000

Oh my gosh.

458

00:30:33,000 --> 00:30:36,000

The graphite has not turned to a diamond.

459

00:30:36,000 --> 00:30:42,000

Looks like my diamond business is not going so well.

460

00:30:42,000 --> 00:30:45,000

Which means there's no clear homegrown winner.

461

00:30:45,000 --> 00:30:54,000

So for an expert adjudication, the team heads to UC Berkeley to see Dr. Kent Ross at his electron microscope.

462

00:30:54,000 --> 00:30:57,000

First up is Grant's iron and graphite.

463

00:30:57,000 --> 00:31:05,000

Nothing that I'm seeing now has a shape that says this has to be a diamond.

464

00:31:05,000 --> 00:31:07,000

Grant's out of contention.

465

00:31:07,000 --> 00:31:10,000

So next is Carrie's peanut butter dirt.

466

00:31:10,000 --> 00:31:12,000

Chirkel. You've got chirkel.

467

00:31:12,000 --> 00:31:16,000

Which leaves only Tori and his diamond seed.

468

00:31:16,000 --> 00:31:19,000

The straight edges from the cut faces are still perfectly smooth.

469

00:31:19,000 --> 00:31:23,000

It's just like it was when you started your experiment.

470

00:31:24,000 --> 00:31:27,000

There's been no growth whatsoever.

471

00:31:27,000 --> 00:31:31,000

And that's game over. No diamonds, nobody wins.

472

00:31:31,000 --> 00:31:33,000

But where does that leave the myth?

473

00:31:33,000 --> 00:31:36,000

So we all tried making diamonds and we all failed miserably.

474

00:31:36,000 --> 00:31:40,000

Yeah, I think it's safe to say that all these recipes are busted.

475

00:31:40,000 --> 00:31:41,000

Totally busted.

476

00:31:41,000 --> 00:31:48,000

But you know what? Our researchers have come up with someone who can make diamonds in a myth buster way.

477

00:31:48,000 --> 00:31:49,000

Cool.

478

00:31:49,000 --> 00:31:50,000

You guys remember Van Romero?

479

00:31:50,000 --> 00:31:51,000

From New Mexico Tech.

480

00:31:51,000 --> 00:31:56,000

He says he can make synthetic diamonds and he wants to show us how.

481

00:31:56,000 --> 00:31:58,000

Awesome. What are we waiting for?

482

00:31:58,000 --> 00:32:08,000

So for a proper chance at making some bona fide bling, the myth busters head to New Mexico Institute of Mining and Technology to meet Dr. Van Romero.

483

00:32:08,000 --> 00:32:10,000

So Van, we heard that you know how to make diamonds.

484

00:32:10,000 --> 00:32:11,000

You've come to the right place.

485

00:32:11,000 --> 00:32:15,000

Here at New Mexico Tech we do applied research and we do industrial research.

486

00:32:15,000 --> 00:32:17,000

And part of that industrial research is actually making diamonds.

487

00:32:17,000 --> 00:32:20,000

All right, well cut to the chase. Tell us how to do it.

488

00:32:20,000 --> 00:32:23,000

You know what? Instead of telling you how, let's show you how to do it.

489

00:32:23,000 --> 00:32:24,000

Even better.

490

00:32:24,000 --> 00:32:25,000

Let's go do it.

491

00:32:28,000 --> 00:32:33,000

Step one, a Van's mysterious method involves driving into the middle of nowhere.

492

00:32:34,000 --> 00:32:38,000

Step two involves arriving at an almighty bunker.

493

00:32:38,000 --> 00:32:42,000

And as for step three, well, Tori's one step ahead.

494

00:32:43,000 --> 00:32:49,000

Considering that we're standing outside of a bunker, my feeling is it probably involves explosives, which is never a bad thing.

495

00:32:51,000 --> 00:32:52,000

Tori's got it in one.

496

00:32:54,000 --> 00:32:57,000

Van the man reckons he can make bling with a boom.

497

00:32:58,000 --> 00:33:03,000

And not just any boom, but the biggest boom in myth busters history.

498

00:33:04,000 --> 00:33:06,000

In Black Powder Shark.

499

00:33:08,000 --> 00:33:12,000

400 pounds of explosives turned Hugo into Hugo.

500

00:33:13,000 --> 00:33:15,000

In 22,000 foot fall.

501

00:33:16,000 --> 00:33:19,000

500 pounds made a train station turn torpedo.

502

00:33:20,000 --> 00:33:22,000

And in cement mix up.

503

00:33:23,000 --> 00:33:26,000

800 pounds made a truck take flight.

504

00:33:27,000 --> 00:33:30,000

But all will be eclipsed right here, right now.

505

00:33:31,000 --> 00:33:42,000

Because at ground zero, 500 yards from the bunker, Van's team are packing a 20 foot high wooden

tube with 5,000 pounds of high explosives.

506

00:33:43,000 --> 00:33:46,000

But can a bang this big really create diamonds?

507

00:33:47,000 --> 00:33:48,000

Okay, you guys ready to make some diamonds?

508

00:33:48,000 --> 00:33:49,000

Yeah.

509

00:33:50,000 --> 00:33:51,000

Strap yourself in.

510

00:33:52,000 --> 00:33:54,000

This one's going to be gigantic.

511

00:33:55,000 --> 00:34:00,000

Charging five, four, three, two, one, zero.

512

00:34:14,000 --> 00:34:18,000

With over 10 times the might of any other myth busters boom.

513

00:34:21,000 --> 00:34:23,000

It sure was a blast.

514

00:34:24,000 --> 00:34:27,000

But did it germinate any gemstones?

515

00:34:28,000 --> 00:34:29,000

Up next.

516

00:34:30,000 --> 00:34:33,000

Almost worse watching you do it than doing it myself.

517

00:34:34,000 --> 00:34:37,000

Adam and Jamie crack the double dipping dilemma.

518

00:34:37,000 --> 00:34:52,000

The myth busters are getting all bacteriological as they probe a Seinfeld double dipping dilemma.

519

00:34:53,000 --> 00:34:57,000

But thanks to masses of microbes, their first test was ruined.

520

00:34:58,000 --> 00:35:00,000

So this time the boys are taking precautions.

521

00:35:01,000 --> 00:35:06,000

We need to do what we normally do, which is start eliminating variables and then get back in there and do the test.

522

00:35:07,000 --> 00:35:11,000

Stereo-salsa, sterile chips, clean space, rubber gloves, surgical masks.

523

00:35:12,000 --> 00:35:14,000

The only variable being our saliva.

524

00:35:15,000 --> 00:35:16,000

Perfect. Let's do it.

525

00:35:17,000 --> 00:35:23,000

So Adam starts with the chip sterilization, adding to New Tech Corporation to have them irradiated.

526

00:35:25,000 --> 00:35:27,000

Will these be safe to eat after that?

527

00:35:28,000 --> 00:35:30,000

They might taste a little funny, but they'll be totally safe to eat.

528

00:35:31,000 --> 00:35:32,000

Okay, great.

529

00:35:33,000 --> 00:35:35,000

Funny tasting and more importantly, sterile.

530

00:35:35,000 --> 00:35:44,000

Friends and family of bacteria may want to look away now because 2.5 million rads of radiation is about to be unleashed.

531

00:35:45,000 --> 00:35:47,000

That is so much cooler than I thought it would be.

532

00:35:48,000 --> 00:35:53,000

I mean, it's like see this beam coming down like an anvil crossing bacteria in its wake.

533

00:35:54,000 --> 00:35:56,000

Electrons scattering little bacteriological lives to the winds.

534

00:35:57,000 --> 00:36:02,000

Uncharacteristically, Adam is enjoying this far too much and soon enough...

535

00:36:02,000 --> 00:36:05,000

There you have it, one set of totally sterile chips.

536

00:36:06,000 --> 00:36:11,000

Meanwhile, back at the shop, Jamie's also getting sterile for science.

537

00:36:12,000 --> 00:36:18,000

He first builds a clean room for the test and then conjures up some decontaminated dip.

538

00:36:19,000 --> 00:36:23,000

Two parts agar, one part sterilized water and voila.

539

00:36:24,000 --> 00:36:30,000

Well, okay then. I think that kind of looks like as close to salsa as we're going to get.

540

00:36:30,000 --> 00:36:36,000

To make sure the test runs smoothly, the boys have Dr. Russell Vance, an expert in pathogenesis.

541

00:36:37,000 --> 00:36:38,000

He's the guy in the middle.

542

00:36:39,000 --> 00:36:40,000

What's first?

543

00:36:41,000 --> 00:36:43,000

That'd be the salsa only control.

544

00:36:44,000 --> 00:36:51,000

Using much more sophisticated equipment than those earlier swabs, Dr. Vance prepares the Petri dishes.

545

00:36:52,000 --> 00:36:53,000

What now?

546

00:36:53,000 --> 00:36:57,000

Now is double dipping, except this time with the fully irradiated chips.

547

00:36:58,000 --> 00:36:59,000

Okay, here we go.

548

00:37:01,000 --> 00:37:13,000

Once the infamous double dip has been double dipped, the salsa is sampled and plated up, leaving just the full mouth test.

549

00:37:14,000 --> 00:37:15,000

Alright, now for the really gross one.

550

00:37:19,000 --> 00:37:23,000

And once again, it's delightful to watch.

551

00:37:24,000 --> 00:37:29,000

It's almost worse than what you do it for yourself.

552

00:37:30,000 --> 00:37:31,000

That's experiment over.

553

00:37:32,000 --> 00:37:38,000

Dr. Vance plates the full mouth test and they join the double dip and control plates in the incubator.

554

00:37:39,000 --> 00:37:40,000

Okay, they're in the incubator.

555

00:37:41,000 --> 00:37:42,000

Thanks, Dr. Vance.

556

00:37:43,000 --> 00:37:45,000

Now we wait, but not for long.

557

00:37:46,000 --> 00:37:49,000

So for viewers playing at home, here's what to look for.

558

00:37:50,000 --> 00:37:59,000

The stated myth is that double dipping is just as bad as putting your whole mouth in the bowl of dip in terms of transmitting bacteria to it.

559

00:38:00,000 --> 00:38:07,000

So if this is true, we would expect to see the same amount of bacteria on the double dipping Petri dish as we would on the whole mouth in the bowl Petri dish.

560

00:38:08,000 --> 00:38:09,000

Here we go.

561

00:38:10,000 --> 00:38:12,000

This is my control.

562

00:38:13,000 --> 00:38:14,000

It's clean.

563

00:38:15,000 --> 00:38:16,000

Here's your control.

564

00:38:17,000 --> 00:38:18,000

It's clean.

565

00:38:18,000 --> 00:38:19,000

What are you expecting to see?

566

00:38:20,000 --> 00:38:24,000

That's a clean start, meaning Jamie's salsa was bacteria free.

567

00:38:25,000 --> 00:38:29,000

So from here on in, any microbes can only be from their saliva.

568

00:38:30,000 --> 00:38:32,000

Here is my double dipping.

569

00:38:33,000 --> 00:38:34,000

Maybe one.

570

00:38:36,000 --> 00:38:38,000

There's one bacterial colony.

571

00:38:40,000 --> 00:38:41,000

And for Jamie.

572

00:38:42,000 --> 00:38:43,000

Maybe three or four or so.

573

00:38:44,000 --> 00:38:47,000

But how does that compare with the whole mouth results?

574

00:38:48,000 --> 00:38:49,000

Lots.

575

00:38:50,000 --> 00:38:51,000

Tons. Check out yours.

576

00:38:54,000 --> 00:38:55,000

Also lots.

577

00:38:56,000 --> 00:38:57,000

About the same.

578

00:38:58,000 --> 00:38:59,000

Well, I guess that tells the whole story, doesn't it?

579

00:39:00,000 --> 00:39:02,000

It tells the entire story that we set out to tell.

580

00:39:03,000 --> 00:39:06,000

So to all those germophobes out there, I say double dipping.

581

00:39:07,000 --> 00:39:09,000

Not such a big deal.

582

00:39:10,000 --> 00:39:13,000

Plenty more bacteria in here than you are imparting by double dipping.

583

00:39:13,000 --> 00:39:17,000

And besides, what the heck's your immune system for anyway?

584

00:39:18,000 --> 00:39:19,000

Indeed.

585

00:39:22,000 --> 00:39:25,000

Coming right up, the team bring on the bling.

586

00:39:28,000 --> 00:39:30,000

In the Big Bang finale.

587

00:39:43,000 --> 00:39:44,000

Dead.

588

00:39:45,000 --> 00:39:50,000

So they hunkered in a bunker to test the tail that you can use explosives to bring forth some

bling.

589

00:39:54,000 --> 00:39:55,000

That was awesome!

590

00:40:03,000 --> 00:40:07,000

The theory is that the pressure and heat at ground zero is so intense,

591

00:40:08,000 --> 00:40:11,000

it converts carbon to diamond in an instant.

592

00:40:12,000 --> 00:40:15,000

So to delve deeper into that theory, it's back to the lab,

593

00:40:16,000 --> 00:40:20,000

so the team can prep a more manageable diamond explosion of their own.

594

00:40:21,000 --> 00:40:23,000

So this is the device that we're going to be using.

595

00:40:24,000 --> 00:40:27,000

We're going to have you guys pack the special sauce into the device here.

596

00:40:28,000 --> 00:40:30,000

This metal tube sits at the center of the blast.

597

00:40:31,000 --> 00:40:36,000

And in the center of that is a mixture of graphite, cobalt, and other chemicals.

598

00:40:36,000 --> 00:40:39,000

The cylinder is placed in the very center of a wooden barrel,

599

00:40:40,000 --> 00:40:42,000

which is then filled to the brim with anfo.

600

00:40:44,000 --> 00:40:45,000

Smells good.

601

00:40:46,000 --> 00:40:47,000

Smells like diamonds.

602

00:40:48,000 --> 00:40:52,000

Now I know they say diamonds are girls best friend, but let's face it,

603

00:40:53,000 --> 00:40:56,000

if you're making diamonds with explosives, I'm starting to warm up to them myself.

604

00:40:57,000 --> 00:41:01,000

It's a wind bling situation, so the team hunkers in the bunker once again.

605

00:41:02,000 --> 00:41:06,000

Five, four, three, two, one, zero.

606

00:41:18,000 --> 00:41:23,000

That blast may have been a wee bit smaller, but the effect should still be the same.

607

00:41:24,000 --> 00:41:25,000

Diamonds, apparently.

608

00:41:26,000 --> 00:41:30,000

That looks in much better shape than I thought it was going to look.

609

00:41:31,000 --> 00:41:33,000

That's what we wanted, right? Pressure and heat.

610

00:41:34,000 --> 00:41:39,000

Back at the shop, it's the moment of truth as the very myth gets dissected.

611

00:41:40,000 --> 00:41:44,000

Tori's so confident he's taking precautions against bling blindness.

612

00:41:45,000 --> 00:41:46,000

Everybody's happy.

613

00:41:47,000 --> 00:41:48,000

Ready to see our diamonds?

614

00:41:49,000 --> 00:41:50,000

Show me the money.

615

00:41:51,000 --> 00:41:53,000

Perfect, that's great. Excellent. Good job.

616

00:41:54,000 --> 00:41:55,000

Where's the diamond?

617

00:41:56,000 --> 00:41:57,000

Well, we got to take it through a few chemical processes first.

618

00:41:57,000 --> 00:42:03,000

They might not look like much, but after a quick chemical bath to remove the excess cobalt and graphite,

619

00:42:04,000 --> 00:42:09,000

they still don't look like much, but these are definitely diamonds.

620

00:42:10,000 --> 00:42:12,000

Gemstones know diamonds yes.

621

00:42:13,000 --> 00:42:14,000

So how much are these diamonds worth?

622

00:42:15,000 --> 00:42:16,000

About a quarter.

623

00:42:17,000 --> 00:42:18,000

A quarter of a million?

624

00:42:19,000 --> 00:42:20,000

No, 25 cents.

625

00:42:21,000 --> 00:42:22,000

Oh, that was money well spent.

626

00:42:23,000 --> 00:42:24,000

I'm going back and get diamonds the old fashioned way.

627

00:42:25,000 --> 00:42:29,000

The blast may have mimicked the pressure and heat of the Earth's core,

628

00:42:30,000 --> 00:42:37,000

but even with all that explosive energy, the end result is still only cheap and cheerful industrial diamonds.

629

00:42:38,000 --> 00:42:42,000

We made diamonds in a completely spectacular, totally impossible to do at home way,

630

00:42:43,000 --> 00:42:45,000

but still all that heat and pressure, we didn't get gemstones.

631

00:42:46,000 --> 00:42:47,000

Yeah, we made little diamonds.

632

00:42:48,000 --> 00:42:51,000

I mean the kind that you use in industry, the kinds that you put on a drill bit, or saw blade, you know, stuff like that.

633

00:42:51,000 --> 00:42:55,000

So the idea of homemade gemstones, totally and completely busted.

634

00:42:56,000 --> 00:42:59,000

And like virtually all get rich quick schemes, this one's bogus.

635

00:43:00,000 --> 00:43:02,000

Don't you guys want to see that 5,000 pound explosion again?

636

00:43:03,000 --> 00:43:04,000

Absolutely!

637

00:43:07,000 --> 00:43:10,000

While the team may not have made their fortune with diamond gems,

638

00:43:12,000 --> 00:43:15,000

they did make Mythbusters history.

639

00:43:15,000 --> 00:43:21,000

And this explosion is worth its weight in gold.

