

1

00:00:00,000 --> 00:00:13,000

on this scatological episode of Mythbusters.

2

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

Oh man.

3

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

It's all about idioms.

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

As the team takes on those phrases, we all take for granted.

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

Is it really best to hit the ground running?

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

Or to end with a bang?

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

And for the couda grass...

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

I know I shouldn't be surprised, but it smells terrible.

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

Adam and Jamie will attempt to polish the unpolishable.

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

Incredible.

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

Who are the Mythbusters?

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

Adam Savage.

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

I look good, right?

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

I look damn good.

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

And Jamie Heineman.

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

Oh great. We got a yeti outside.

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

Between them more than 30 years of special effects experience.

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

Joining them,

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

Grant Imahara.

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

Oh my god!

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

Tori Galechi.

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00:01:03,000 --> 00:01:05,000

Say hello to my little friend.

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00:01:05,000 --> 00:01:07,000

And Carrie Byron.

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00:01:07,000 --> 00:01:08,000

You're better than a robot.

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00:01:08,000 --> 00:01:11,000

They don't just tell the Myths.

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00:01:11,000 --> 00:01:13,000

Bye bye.

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

They put them to the test.

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00:01:28,000 --> 00:01:34,000

So we're doing idioms. Do you have any?

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00:01:34,000 --> 00:01:36,000

I do actually.

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00:01:36,000 --> 00:01:40,000

At Industrial Light Magic, whenever we were working on a model that required a lot of detail,

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00:01:40,000 --> 00:01:43,000

and yet was still ugly, we referred to the process as...

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00:01:43,000 --> 00:01:45,000

polishing.

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00:01:45,000 --> 00:01:48,000

So the myth is, you can't polish it.

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00:01:48,000 --> 00:01:49,000

Exactly.

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00:01:49,000 --> 00:01:52,000

That one's been around forever. I've heard that all over the place.

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00:01:52,000 --> 00:01:55,000

I got a wrinkle though, because the network has instructed us

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00:01:55,000 --> 00:01:58,000

that we're not allowed to use the word...

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

Can we say?

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

Of course not.

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

Nope.

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00:02:03,000 --> 00:02:06,000

But to set your mind at ease, we can say...

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00:02:06,000 --> 00:02:12,000

Fisi's manure, guano, dung waste, scat, doo doo, poopoo, and poop.

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00:02:14,000 --> 00:02:18,000

Patents that we are, we've put common idioms to the test before.

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00:02:18,000 --> 00:02:22,000

We've dared to question the culpability of bulls in china shops.

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00:02:22,000 --> 00:02:25,000

They're very careful of the break in china.

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00:02:25,000 --> 00:02:28,000

The trouble with finding needles in haystacks.

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00:02:30,000 --> 00:02:33,000

And the ease of shooting fish in a barrel.

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00:02:33,000 --> 00:02:35,000

I think he's still squirming.

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00:02:35,000 --> 00:02:39,000

But this just might be the toughest task of all.

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00:02:39,000 --> 00:02:43,000

So where are we going to start with this poop polishing?

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00:02:43,000 --> 00:02:49,000

Well, I think we're going to need the widest possible array of dung that we can find.

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00:02:49,000 --> 00:02:52,000

A veritable smorgasbord of fecal matter.

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00:02:52,000 --> 00:02:57,000

And then see if there's any specific kind we can get to take a high polish.

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00:02:57,000 --> 00:02:59,000

Okay, let's get at it.

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00:03:02,000 --> 00:03:08,000

From here, the best place to find a truly broad selection of dung is the San Francisco Zoo.

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

Well, we're just about to go into the barn containing a bunch of giraffes.

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00:03:12,000 --> 00:03:17,000

Or as we on Midbusters like to call them, the large herbivore savannah-based,

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00:03:17,000 --> 00:03:19,000

bee-sees production units.

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00:03:19,000 --> 00:03:23,000

And hopefully they're going to have some special packages just for us.

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00:03:23,000 --> 00:03:26,000

But you can't expect something for nothing.

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00:03:26,000 --> 00:03:28,000

So the boys come bearing fruit.

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00:03:28,000 --> 00:03:30,000

We've got some breakfast here.

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00:03:30,000 --> 00:03:33,000

This girl refuses to take Adam's banana.

64

00:03:33,000 --> 00:03:35,000

No surprises there.

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00:03:35,000 --> 00:03:37,000

Jamie has better luck.

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00:03:37,000 --> 00:03:38,000

She's beautiful.

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00:03:38,000 --> 00:03:42,000

And breakfast begins its magical transformation into manure.

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00:03:42,000 --> 00:03:44,000

Okay, now you've eaten.

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00:03:44,000 --> 00:03:46,000

Let's see the other stuff.

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00:03:46,000 --> 00:03:49,000

They're a rare chance to frolic with the wildlife.

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00:03:49,000 --> 00:03:52,000

But Jamie knows they're here on business.

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00:03:52,000 --> 00:03:55,000

He's like, what the hell are you doing?

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00:03:55,000 --> 00:03:57,000

Hello, girl.

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00:03:57,000 --> 00:03:59,000

Is it okay?

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00:03:59,000 --> 00:04:01,000

Can I get some?

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00:04:01,000 --> 00:04:07,000

So it turns out the giraffes are really efficient at extracting the nutrients they need out of the food they eat.

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00:04:07,000 --> 00:04:15,000

Unlike things like elephants and other herbivores that live in the same environment that are basically like cows the way they process.

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00:04:15,000 --> 00:04:18,000

The giraffes extract every last little thing.

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00:04:18,000 --> 00:04:21,000

Hello, out of the out of the food.

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00:04:21,000 --> 00:04:29,000

And that's why you end up with this dense little nugget, which tells me that it might be better material for us to work with.

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00:04:29,000 --> 00:04:34,000

But giraffes aren't the only donors.

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

Grizzly done.

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

Let's go get some.

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00:04:37,000 --> 00:04:44,000

Armed with scoops and buckets, they need to steal the scats of a bunch more species to give them the best possible chance of buying.

85

00:04:44,000 --> 00:04:48,000

And they're going to be able to get a reasonable chance of busting this myth.

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00:04:48,000 --> 00:04:52,000

If one stool won't take a shine, another might.

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00:04:52,000 --> 00:04:54,000

So there's no bears around here I take it.

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00:04:54,000 --> 00:04:57,000

Hey, Jamie, over here.

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00:04:57,000 --> 00:05:00,000

Oh man, this stuff is soft.

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

It's kind of like meatloaf.

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00:05:02,000 --> 00:05:04,000

I know I shouldn't be surprised, but it smells terrible.

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00:05:04,000 --> 00:05:06,000

You know the worst part now?

93

00:05:06,000 --> 00:05:08,000

I got a niche on my nose.

94

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

The grizzlies get set free.

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00:05:11,000 --> 00:05:14,000

They're going to be able to get some stink to stench.

96

00:05:14,000 --> 00:05:16,000

Hort hogs.

97

00:05:16,000 --> 00:05:18,000

Well, right out of the gate, I see we're in luck.

98

00:05:18,000 --> 00:05:21,000

Look at that.

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00:05:21,000 --> 00:05:24,000

Holy s***, that's a lot of poo.

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00:05:24,000 --> 00:05:26,000

Oh, wait, look.

101

00:05:26,000 --> 00:05:27,000

Oh, it's all in the spring.

102

00:05:27,000 --> 00:05:29,000

It's like it could be a necklace.

103

00:05:29,000 --> 00:05:32,000

We just have to polish it up.

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00:05:32,000 --> 00:05:40,000

They race to secure the manure from half a dozen more animals, including lions, rhinos, and koalas.

105

00:05:40,000 --> 00:05:42,000

We've got everything we need here.

106

00:05:42,000 --> 00:05:44,000

Oh, you're full of it.

107

00:05:44,000 --> 00:05:48,000

Let's get back to the shop and start polishing.

108

00:05:48,000 --> 00:05:50,000

Okay.

109

00:05:56,000 --> 00:05:59,000

Now to test a myth with momentum.

110

00:05:59,000 --> 00:06:01,000

All right, so what's next?

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00:06:01,000 --> 00:06:04,000

Well, we've got another myth that will like a result in you getting hurt.

112

00:06:04,000 --> 00:06:05,000

Great.

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

Awesome, what is it?

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

Okay, you know the phrase, hit the ground running?

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00:06:08,000 --> 00:06:11,000

It's like a term when somebody is like already up to speed before they start a job.

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00:06:11,000 --> 00:06:12,000

Right.

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00:06:12,000 --> 00:06:17,000

Well, what we want to know is if you literally hit the ground running, do you get going any faster?

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00:06:17,000 --> 00:06:18,000

I like it.

119

00:06:18,000 --> 00:06:20,000

Yeah, it sounds dangerous for you.

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00:06:23,000 --> 00:06:28,000

When the phrase surfaced in the 1890s, it was meant literally.

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00:06:28,000 --> 00:06:31,000

So all the more reason to put it to the test.

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00:06:31,000 --> 00:06:36,000

We'll move on to wheels in motion, but kick off with fast feet.

123

00:06:36,000 --> 00:06:38,000

So how are we going to test this?

124

00:06:38,000 --> 00:06:44,000

I think we need to start out with a harness to keep us suspended in the air so we can get our feet moving before we touch the ground.

125

00:06:44,000 --> 00:06:48,000

We should probably also add some forward momentum to see if that has any difference on the experiment.

126

00:06:48,000 --> 00:06:51,000

Wait a minute, that sounds like we're all getting hurt, not just Tori.

127

00:06:51,000 --> 00:06:54,000

Welcome to my world.

128

00:06:54,000 --> 00:06:57,000

And welcome back to Trapeze Arts.

129

00:06:57,000 --> 00:07:02,000

This is where our three thrill seekers once tried a 360 on a swing.

130

00:07:02,000 --> 00:07:04,000

Oh my gosh, that's enough.

131

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

The teams commissioned an indoor zip line to help launch the legend.

132

00:07:09,000 --> 00:07:14,000

Meantime, they'll need some baseline figures to see if this phrase has legs.

133

00:07:14,000 --> 00:07:21,000

Well, I think we should start out with a control run from a standing start, let's say 30 feet, and then time it.

134

00:07:21,000 --> 00:07:24,000

Alright, then we'll use our harness rig so that we're up off the ground.

135

00:07:24,000 --> 00:07:30,000

We'll start our run, and then when we're dropped, we'll be in mid-stride and we'll see if our time is any shorter.

136

00:07:31,000 --> 00:07:35,000

30 feet is a short sprint, but that's the best way to test this idiom.

137

00:07:35,000 --> 00:07:38,000

It's 30 feet, right there.

138

00:07:38,000 --> 00:07:44,000

Any difference between a standing and a rolling start is likely to be measured in fractions of a second.

139

00:07:44,000 --> 00:07:48,000

Let's go, let's go, come on, get those shoes on, get those shoes on.

140

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

Tori's the first to run his three standing start control sprints.

141

00:07:53,000 --> 00:07:56,000

On your marks, get set, go.

142

00:07:57,000 --> 00:08:00,000

Tori consistently clocks just over two seconds.

143

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

211.

144

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

But those tiny differentials might make all the difference.

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00:08:07,000 --> 00:08:09,000

Alright, who's next?

146

00:08:09,000 --> 00:08:13,000

Now, Carrie and Grant post their own times.

147

00:08:13,000 --> 00:08:14,000

I'm ready.

148

00:08:14,000 --> 00:08:17,000

On your marks, get set, go.

149

00:08:19,000 --> 00:08:20,000

That was cute.

150

00:08:20,000 --> 00:08:21,000

That was cute.

151

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

I like the way she hit the back.

152

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

Then, Grant steps up to the mark.

153

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

On your marks, get set, go.

154

00:08:31,000 --> 00:08:34,000

Grant figures out the average time for each runner.

155

00:08:34,000 --> 00:08:37,000

That's the mark they'll have to beat.

156

00:08:37,000 --> 00:08:39,000

And now, for the fun stuff.

157

00:08:39,000 --> 00:08:41,000

Hit the ground running test, go for the plan.

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00:08:41,000 --> 00:08:42,000

Alright, so the trapeze is set up.

159

00:08:42,000 --> 00:08:44,000

Eric's going to lift us up so our feet aren't touching the ground.

160

00:08:44,000 --> 00:08:46,000

We're going to start moving our feet.

161

00:08:46,000 --> 00:08:49,000

As soon as we hear go, we drop down and start the run.

162

00:08:50,000 --> 00:08:53,000

Tori takes flight, as Carrie takes fright.

163

00:08:53,000 --> 00:08:56,000

Personally, I think hitting the ground running sounds great in your head

164

00:08:56,000 --> 00:08:58,000

if you're thinking in cartoons.

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00:08:58,000 --> 00:09:00,000

But in real life, I have a feeling it's going to trip you up

166

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

and, well, we might see some face plans.

167

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

We live in hope.

168

00:09:10,000 --> 00:09:14,000

Adam and Jamie have gathered the droppings from ten different animals

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00:09:14,000 --> 00:09:17,000

to see which, if any, buffs up the best.

170

00:09:17,000 --> 00:09:19,000

Those babies would hurt coming out.

171

00:09:19,000 --> 00:09:22,000

Back at M5, Jamie marks up some tinfoil trays

172

00:09:22,000 --> 00:09:25,000

and finds a novel use for ear plugs.

173

00:09:25,000 --> 00:09:27,000

They work for your ears.

174

00:09:27,000 --> 00:09:29,000

Maybe they work for your nose, too.

175

00:09:30,000 --> 00:09:32,000

Okay, here we go.

176

00:09:33,000 --> 00:09:36,000

Once the poop is partitioned...

177

00:09:36,000 --> 00:09:38,000

Oh, man.

178

00:09:38,000 --> 00:09:40,000

...every sample gets roasted.

179

00:09:41,000 --> 00:09:46,000

The theory is that dried dung is more likely to take a polish.

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00:09:46,000 --> 00:09:51,000

The whole point of baking the scat at 300 degrees for six hours

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00:09:51,000 --> 00:09:53,000

is not just to bring out the flavor,

182

00:09:53,000 --> 00:09:56,000

but also to get out the moisture to harden it.

183

00:09:56,000 --> 00:10:00,000

While it's regular poop, there's no way we can get a polish on it

184

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

because it's soft.

185

00:10:02,000 --> 00:10:04,000

But if we bake it and get out the moisture,

186

00:10:04,000 --> 00:10:07,000

then presumably it will harden, and then maybe it'll take a polish.

187

00:10:07,000 --> 00:10:09,000

It has the added benefit of killing all the germs,

188

00:10:09,000 --> 00:10:12,000

which our insurance company is very pleased about.

189

00:10:12,000 --> 00:10:14,000

The stink is all I know.

190

00:10:17,000 --> 00:10:20,000

This is like the most twisted lunch tray ever.

191

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

And their first job is to sort the chaff from the hay.

192

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

This is horse poop, and there's nothing left.

193

00:10:29,000 --> 00:10:32,000

It's mostly like, you know, hay.

194

00:10:32,000 --> 00:10:34,000

In fact, that looks like it.

195

00:10:34,000 --> 00:10:36,000

That's all it was, but...

196

00:10:36,000 --> 00:10:37,000

Now it's ash.

197

00:10:37,000 --> 00:10:41,000

Baked horse manure looks way too flaky to take a polish.

198

00:10:41,000 --> 00:10:45,000

And the same goes for elephant, rhino, and grizzly duck.

199

00:10:45,000 --> 00:10:48,000

We've got five out of nine.

200

00:10:48,000 --> 00:10:50,000

That's actually pretty good.

201

00:10:50,000 --> 00:10:52,000

Let's see what we can do.

202

00:10:52,000 --> 00:10:54,000

Where do you want to begin?

203

00:10:54,000 --> 00:10:58,000

Adam's a stuttering mess, but this is uncharted territory.

204

00:10:58,000 --> 00:11:01,000

They'll need good instincts and a strong stomach

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00:11:01,000 --> 00:11:05,000

to choose the right sample and the right method.

206

00:11:06,000 --> 00:11:08,000

Jamie picks giraffe dung.

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

While Adam tries lion feces,

208

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

and I'm going at it with a bit of a tongue twister.

209

00:11:15,000 --> 00:11:19,000

I have 320-quit wet dry sandpaper,

210

00:11:19,000 --> 00:11:23,000

and honestly, it seems to be going swimmingly.

211

00:11:24,000 --> 00:11:28,000

Assuming this idiom ever gets close to being busted,

212

00:11:28,000 --> 00:11:31,000

to call it, we'll need some kind of gloss rating.

213

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

Adam's arranged to rent a fancy machine

214

00:11:36,000 --> 00:11:40,000

that actually measures the reflective properties we call a shine.

215

00:11:40,000 --> 00:11:44,000

At this early stage, Jamie thinks we won't be wasting our money.

216

00:11:44,000 --> 00:11:48,000

So I'm actually getting a nice little shine on this puppy.

217

00:11:48,000 --> 00:11:52,000

I'm doing that just by adding a little bit of water to the table surface

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00:11:52,000 --> 00:11:56,000

and rubbing it around until it kind of flattens what material's already there

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00:11:56,000 --> 00:11:59,000

out into a nice surface.

220

00:11:59,000 --> 00:12:03,000

Giraffe pellets do seem to have polished potential.

221

00:12:03,000 --> 00:12:07,000

The finishing touch on this is going to be to add a little bit of oil,

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00:12:07,000 --> 00:12:10,000

just like you would put on your furniture that you've got nice and polished,

223

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

and that'll keep it shiny.

224

00:12:13,000 --> 00:12:17,000

Meantime, Adam goes high-tech with a jeweler's wheel.

225

00:12:17,000 --> 00:12:21,000

Terrible failure that is, right there.

226

00:12:21,000 --> 00:12:24,000

Frustration turns to exasperation,

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00:12:24,000 --> 00:12:28,000

as Adam learns that Jamie's using furniture polish.

228

00:12:28,000 --> 00:12:35,000

You are obstinately ignoring the spirit and the letter of the myth

229

00:12:35,000 --> 00:12:38,000

by using a wax-based polish.

230

00:12:38,000 --> 00:12:41,000

This is about polishing. There's polish.

231

00:12:41,000 --> 00:12:43,000

I don't see the problem.

232

00:12:43,000 --> 00:12:45,000

You're imparting an artificial shine.

233

00:12:45,000 --> 00:12:47,000

You might as well just spray paint it.

234

00:12:47,000 --> 00:12:50,000

You're adding the material, and the material is what's getting you your shine,

235

00:12:50,000 --> 00:12:52,000

not the poop itself.

236

00:12:52,000 --> 00:12:55,000

Proving you can polish a poop is a big ask.

237

00:12:55,000 --> 00:12:58,000

So it's no surprise that the sh** hit the fan.

238

00:12:58,000 --> 00:13:01,000

It's a wax. It helps get a shine on it.

239

00:13:02,000 --> 00:13:06,000

You wax your floor. You polish your floor. You polish tables.

240

00:13:06,000 --> 00:13:08,000

I'm gone.

241

00:13:11,000 --> 00:13:14,000

Well, I guess we've left Tori hanging long enough.

242

00:13:16,000 --> 00:13:21,000

He, Grant and Carrie are testing the literal truth of hit the ground running.

243

00:13:21,000 --> 00:13:26,000

Just like the control sprints, they'll all try this running drop test three times.

244

00:13:26,000 --> 00:13:28,000

And here's the highlights.

245

00:13:31,000 --> 00:13:32,000

Go!

246

00:13:34,000 --> 00:13:36,000

The way I was picturing it was really cool.

247

00:13:36,000 --> 00:13:39,000

I probably looked really cool on the high speed.

248

00:13:39,000 --> 00:13:41,000

Well, this one.

249

00:13:41,000 --> 00:13:43,000

Hanging set.

250

00:13:43,000 --> 00:13:46,000

I haven't reached maximum velocity yet.

251

00:13:46,000 --> 00:13:47,000

Go.

252

00:13:48,000 --> 00:13:49,000

Go.

253

00:13:50,000 --> 00:13:52,000

I have to say that was pretty awkward.

254

00:13:52,000 --> 00:13:58,000

It wasn't really like hitting the ground running so much as it was hitting the ground stumbling.

255

00:14:01,000 --> 00:14:04,000

That was the most graceful thing I've ever seen in my life.

256

00:14:04,000 --> 00:14:06,000

I have a tiger, Grant. I have a tiger.

257

00:14:06,000 --> 00:14:07,000

Like I have a kitten.

258

00:14:10,000 --> 00:14:14,000

You can't help notice that hitting the ground running looks a lot clumsier

259

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

and a whole lot slower than a standing start.

260

00:14:18,000 --> 00:14:20,000

I'm under no illusion. That was probably a slower run.

261

00:14:20,000 --> 00:14:22,000

I almost didn't see her pass.

262

00:14:22,000 --> 00:14:27,000

Mostly from all the awkward flailing around that left me in a strange position by the time I hit the ground to run.

263

00:14:27,000 --> 00:14:28,000

Go.

264

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

But the stopwatch never lies.

265

00:14:32,000 --> 00:14:36,000

On average, the three of us were faster hitting the ground running.

266

00:14:36,000 --> 00:14:38,000

There's no way.

267

00:14:38,000 --> 00:14:40,000

We're going to hit the ground running by an eighth of a second.

268

00:14:40,000 --> 00:14:41,000

Go.

269

00:14:41,000 --> 00:14:46,000

Incredibly, these rough rolling starts did make for a slightly faster time.

270

00:14:46,000 --> 00:14:49,000

But there's a good chance they can do even better.

271

00:14:49,000 --> 00:14:53,000

Now we're going to do a test, hit the ground running, but with forward momentum.

272

00:14:53,000 --> 00:14:55,000

I think this is going to be a much better test.

273

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

Sliding in on a zipline, they'll hit the start line at speed.

274

00:15:00,000 --> 00:15:05,000

By any standards, this must be the ultimate way to hit the ground running.

275

00:15:05,000 --> 00:15:07,000

But will it be faster?

276

00:15:07,000 --> 00:15:13,000

Well, it's hard because it's like if your foot is not in the right place when you get off that trolley, you're going to go straight on your face.

277

00:15:13,000 --> 00:15:16,000

Maybe that's why hit the ground running isn't actually a good thing.

278

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

In three, two, one.

285

00:15:45,000 --> 00:15:47,000

Yeah!

286

00:15:48,000 --> 00:15:50,000

That's not so easy.

287

00:15:50,000 --> 00:15:52,000

Yeah, yeah.

288

00:15:52,000 --> 00:15:55,000

Time for Grant to strut his stuff.

289

00:15:55,000 --> 00:15:58,000

Come on, keep going, Binslaat!

290

00:15:58,000 --> 00:15:59,000

Get down!

291

00:15:59,000 --> 00:16:03,000

When your legs go in the air, the trolley starts rocking.

292

00:16:03,000 --> 00:16:06,000

Suddenly you can't tell where the floor is, and I hit the floor,

293

00:16:06,000 --> 00:16:09,000

and things just went all wrong.

294

00:16:09,000 --> 00:16:15,000

I just don't think that there's any way that this idiom works whatsoever.

295

00:16:15,000 --> 00:16:19,000

I just don't think you're ever going to get a significantly better time

296

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

by running ahead of time.

297

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

I think it's just the idea of a good, good, good, good,

298

00:16:23,000 --> 00:16:24,000

by running ahead of time.

299

00:16:24,000 --> 00:16:28,000

I think it's just, it's crazy, and we should just stop saying it.

300

00:16:28,000 --> 00:16:33,000

But Carrie and Tori finally did seem to hit that mark at high speed.

301

00:16:33,000 --> 00:16:37,000

Still, it all comes down to those fractions of a second.

302

00:16:37,000 --> 00:16:42,000

Running in the air with the forward momentum test is a quarter second slower

303

00:16:42,000 --> 00:16:43,000

than planting and running.

304

00:16:43,000 --> 00:16:46,000

Really? That's a surprise?

305

00:16:46,000 --> 00:16:50,000

So the juries locked on the literal truth of this popular phrase.

306

00:16:50,000 --> 00:16:55,000

Surprisingly, falling was faster, and swinging was slower.

307

00:16:55,000 --> 00:16:59,000

So what say we replace legs with wheels?

308

00:16:59,000 --> 00:17:01,000

Hey, how about a bike? I like bikes.

309

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

Well, we know your track record with those.

310

00:17:04,000 --> 00:17:21,000

I can tell you're trying to send a message, but I can't figure out what it is.

311

00:17:21,000 --> 00:17:25,000

It's an idiom we've been exploiting since the very beginning of the show.

312

00:17:25,000 --> 00:17:27,000

Really? An idiom?

313

00:17:27,000 --> 00:17:29,000

I can't figure out what you got to tell me.

314

00:17:29,000 --> 00:17:32,000

Better to end with a bang.

315

00:17:32,000 --> 00:17:38,000

So you're suggesting that we end the idiom special with a bang?

316

00:17:38,000 --> 00:17:39,000

Exactly.

317

00:17:39,000 --> 00:17:43,000

That's brilliant! Let's get out of here.

318

00:17:43,000 --> 00:17:53,000

Sure, we always assume it's better to end with a bang, especially on mythbusters.

319

00:17:53,000 --> 00:17:59,000

Today we'll put the predictable big bang up against a spectacular slow burn.

320

00:17:59,000 --> 00:18:04,000

But first, we'll have to blow something into tiny, tiny pieces.

321

00:18:04,000 --> 00:18:08,000

So, ending with a bang, what are we going to blow up?

322

00:18:08,000 --> 00:18:11,000

Normally we blow up really big spectacular stuff.

323

00:18:11,000 --> 00:18:14,000

I was thinking, what if we blow up something small and piddling,

324

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

but in a spectacular way, like your little moped there?

325

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

But this thing?

326

00:18:19,000 --> 00:18:21,000

Yeah. I love it.

327

00:18:21,000 --> 00:18:23,000

Let's do it.

328

00:18:24,000 --> 00:18:32,000

Ensuring no one goes home with nine fingers or one eyebrow, Frank Doyle and JD Nelson.

329

00:18:32,000 --> 00:18:37,000

So the goal is to make Jamie's moped go away.

330

00:18:37,000 --> 00:18:39,000

Debt cord.

331

00:18:39,000 --> 00:18:45,000

Debt cord. Alias, Prima cord, a.k.a. linear explosive.

332

00:18:45,000 --> 00:18:52,000

It might look like a clothesline, but the core of this flexible tubing is compressed, powdered explosive.

333

00:18:52,000 --> 00:18:54,000

Does it have to be pretty?

334

00:18:54,000 --> 00:18:56,000

Hey, nothing on this show needs to be pretty.

335

00:18:56,000 --> 00:18:58,000

It just needs to be thorough.

336

00:18:58,000 --> 00:19:03,000

I don't know what this moped ever did to me, but for some reason I'm really enjoying the idea of watching it go away.

337

00:19:03,000 --> 00:19:07,000

Okay, let's replace the word thorough with stragulation.

338

00:19:07,000 --> 00:19:15,000

Yes, for today's bang, we have Joe Zan a vintage mobile or moped,

339

00:19:15,000 --> 00:19:20,000

which we have wrapped carefully with an aged Prima cord,

340

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

700 feet held together with duct tape and ignited with the blasting cap.

341

00:19:25,000 --> 00:19:28,000

I trust it will be fabulous.

342

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

All right, it's beautiful.

343

00:19:30,000 --> 00:19:33,000

But beauty sometimes needs a helping hand.

344

00:19:33,000 --> 00:19:38,000

Well, I'm not one to let well enough alone, and the task we have is to go out with the bang.

345

00:19:38,000 --> 00:19:41,000

So I'm going to add some gasoline.

346

00:19:41,000 --> 00:19:44,000

This is a technique we learned when we were doing the Hollywood explosion,

347

00:19:44,000 --> 00:19:48,000

and if you take a look at this footage of me pretending to be my own action hero,

348

00:19:48,000 --> 00:19:51,000

you'll see what kind of explosion we can expect from this.

349

00:19:51,000 --> 00:19:55,000

Three, two, one.

350

00:20:03,000 --> 00:20:08,000

So Adam adds even more fuel to the fireball.

351

00:20:08,000 --> 00:20:13,000

When a demolition expert laughs like that, it's time to run for cover.

352

00:20:13,000 --> 00:20:16,000

At least the boys have a bunker to hide in.

353

00:20:16,000 --> 00:20:18,000

Okay, everybody ready?

354

00:20:18,000 --> 00:20:19,000

We are.

355

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

All right.

356

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

Ends with a bang, firing in three, two, one.

357

00:20:26,000 --> 00:20:28,000

Wait, wait, wait, wait, wait, wait, wait, wait, wait, wait.

358

00:20:28,000 --> 00:20:32,000

I just realized this is ending with a bang, and we're still in the middle of the episode.

359

00:20:32,000 --> 00:20:34,000

We can't do this at this point.

360

00:20:34,000 --> 00:20:36,000

We've got to go take care of a whole bunch of other stuff and then come back here.

361

00:20:36,000 --> 00:20:37,000

Really?

362

00:20:37,000 --> 00:20:38,000

Yeah.

363

00:20:38,000 --> 00:20:40,000

Okay, let's go.

364

00:20:44,000 --> 00:20:49,000

Carrie, Tori and Grant have been testing the truth of the idiom,

365

00:20:49,000 --> 00:20:54,000

hit the ground running, to see if it really is faster than a standing start.

366

00:20:56,000 --> 00:21:00,000

The results were surprising and inconsistent,

367

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

but where feet fail does, wheels might provide the answer.

368

00:21:04,000 --> 00:21:08,000

We'll end with a car, but start with a bicycle.

369

00:21:09,000 --> 00:21:14,000

You may remember this bike from Driveshap Pull Vault.

370

00:21:14,000 --> 00:21:17,000

We have a very interesting relationship, me and this bike.

371

00:21:25,000 --> 00:21:26,000

I'm okay?

372

00:21:26,000 --> 00:21:30,000

I need to be able to get this bike up to speed without it touching the ground.

373

00:21:30,000 --> 00:21:33,000

So I'm going to build a rig that will hold up the back wheel.

374

00:21:33,000 --> 00:21:38,000

The hit the ground part of this phrase means the bike needs to start suspended.

375

00:21:40,000 --> 00:21:43,000

What I need to do next is make the release system.

376

00:21:43,000 --> 00:21:47,000

So that way once the bike is up to speed, we can quickly release the back wheels,

377

00:21:47,000 --> 00:21:51,000

it'll hit the ground, and we'll see what happens when we hit the ground running.

378

00:21:52,000 --> 00:21:58,000

Adding extender foot pegs to the back axle, Tori modifies the mechanism to drop on demand.

379

00:21:58,000 --> 00:21:59,000

Go ahead.

380

00:21:59,000 --> 00:22:02,000

Three, two, one.

381

00:22:04,000 --> 00:22:05,000

Yeah!

382

00:22:05,000 --> 00:22:07,000

It's going to work!

383

00:22:08,000 --> 00:22:14,000

Out on the test track, Tori sprays the start, while Grant marks the finish line,

384

00:22:14,000 --> 00:22:16,000

a hundred feet up the tarmac.

385

00:22:17,000 --> 00:22:21,000

Then we'll stop the timer once we hit the finish line, and we'll do it three times.

386

00:22:21,000 --> 00:22:24,000

That way we get an average time from our standing start.

387

00:22:26,000 --> 00:22:30,000

These first sprints wouldn't scare a retired mailman.

388

00:22:33,000 --> 00:22:34,000

Excellent.

389

00:22:34,000 --> 00:22:41,000

But for the sake of consistency, Tori needs to wear a safety suit for each and every test.

390

00:22:44,000 --> 00:22:47,000

Just riding a bike. I mean, how dangerous could that be?

391

00:22:47,000 --> 00:22:49,000

Yeah, but this is not the dangerous one.

392

00:22:49,000 --> 00:22:54,000

When you're suspended in the air pedaling as fast as you can, then it gets dangerous.

393

00:22:54,000 --> 00:22:56,000

Ready, set, go!

394

00:22:56,000 --> 00:23:01,000

As with the running tests, they average the times from three standing starts.

395

00:23:01,000 --> 00:23:02,000

Go!

396

00:23:04,000 --> 00:23:05,000

How long time?

397

00:23:05,000 --> 00:23:06,000

Six, sixty-eight.

398

00:23:06,000 --> 00:23:07,000

Go!

399

00:23:08,000 --> 00:23:11,000

And the tour to Tori passes without incident.

400

00:23:11,000 --> 00:23:13,000

Six thirty-four!

401

00:23:13,000 --> 00:23:15,000

I've got a better time!

402

00:23:15,000 --> 00:23:20,000

But we all know that once you learn how to fall off a bike, you never forget.

403

00:23:21,000 --> 00:23:24,000

Now we're going to move on to our suspended test.

404

00:23:24,000 --> 00:23:27,000

Tori's going to be on the bike, suspended above the ground,

405

00:23:27,000 --> 00:23:29,000

he's going to pedal as fast as he can,

406

00:23:29,000 --> 00:23:32,000

and then we're going to release him and see if he's any faster.

407

00:23:33,000 --> 00:23:38,000

My prediction for the next test? Three words. Crash and burn.

408

00:23:38,000 --> 00:23:40,000

All right, I'm ready!

409

00:23:40,000 --> 00:23:46,000

But is he? If history is any guide, Grant should have 9-1-1 on speed dial.

410

00:23:46,000 --> 00:23:48,000

Set, go!

411

00:23:54,000 --> 00:23:56,000

Keep going, keep going!

412

00:23:58,000 --> 00:24:02,000

8.72. Not very good.

413

00:24:04,000 --> 00:24:06,000

As soon as you hit the ground, you lose balance.

414

00:24:06,000 --> 00:24:10,000

So then you have to regain your balance and at the same time, start your pedaling.

415

00:24:10,000 --> 00:24:14,000

So it's such a hard task that it really makes getting off the line slow.

416

00:24:14,000 --> 00:24:18,000

So as far as hitting the ground, running goes for a bike? Not a great idea.

417

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

And here at Mythbusters, a bad idea is always worth repeating.

418

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

Ready, set, go!

419

00:24:28,000 --> 00:24:34,000

Try as he might. Tori just can't, well, hit the ground running.

420

00:24:34,000 --> 00:24:40,000

Once he hits the ground, there's so much friction, there's so much weight there that it just immediately stops.

421

00:24:40,000 --> 00:24:43,000

And he is basically at a standstill.

422

00:24:43,000 --> 00:24:45,000

All right!

423

00:24:45,000 --> 00:24:48,000

You're hitting the ground running, suck!

424

00:24:51,000 --> 00:24:55,000

This was just like when we were at Trapeze Arts and we were trying to catch with our feet.

425

00:24:55,000 --> 00:24:59,000

It's just, it's really hard to, well, hit the ground running.

426

00:24:59,000 --> 00:25:02,000

10.09 seconds.

427

00:25:02,000 --> 00:25:08,000

Just to remind everyone, Tori's control run was just under 6.5 seconds.

428

00:25:08,000 --> 00:25:15,000

Clearly, the friction between the road and the falling rear tire stopped the wheel dead and unbalanced the bike.

429

00:25:15,000 --> 00:25:20,000

So far from proving an advantage, this test is going backwards.

430

00:25:20,000 --> 00:25:27,000

Your average hitting the ground running was 9.27 seconds, 2.8 seconds longer than the control.

431

00:25:27,000 --> 00:25:29,000

That's not good.

432

00:25:29,000 --> 00:25:32,000

It's not looking so good for hitting the ground running on a bike.

433

00:25:32,000 --> 00:25:34,000

We can't stop there. We still have a car.

434

00:25:34,000 --> 00:25:36,000

Yeah, let's ramp it up.

435

00:25:36,000 --> 00:25:38,000

All right.

436

00:25:41,000 --> 00:25:47,000

Adam and Jamie are testing the truth of that delightful idiom you can't polish a, you know what?

437

00:25:47,000 --> 00:25:54,000

Adding to the unpleasantness, Jamie's use of furniture polish provoked a scat spat.

438

00:25:54,000 --> 00:25:56,000

I mean, it's ridiculous. I just don't believe it.

439

00:25:56,000 --> 00:26:03,000

You can be as literal as you want, but you know, you polish your floor using wax like this.

440

00:26:03,000 --> 00:26:11,000

You polish tables. Nobody accuses you of cheating when you polish your living room furniture with polish.

441

00:26:11,000 --> 00:26:20,000

So I think Adam's just kind of like a off because he he's not getting any results and I am.

442

00:26:20,000 --> 00:26:28,000

I'm interested as to whether or not these things are actually polishable, not as to whether or not I can add something to them to achieve a shine.

443

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

But he'd sooner strike a light than curse the darkness.

444

00:26:31,000 --> 00:26:32,000

Hello, sir.

445

00:26:32,000 --> 00:26:45,000

Adam's enlisted Jason Arnold to explain the Japanese art of Dorodango, shaping shiny balls from common dirt using only your hands, tap water and patience.

446

00:26:45,000 --> 00:26:49,000

This was made out of just some soil found in my dad's backyard.

447

00:26:49,000 --> 00:26:51,000

Then I wanted something nicer.

448

00:26:51,000 --> 00:26:55,000

So I went and got a just a nice dirt mix that didn't have a bunch of junk in it.

449

00:26:55,000 --> 00:26:57,000

Wow, these are great.

450

00:26:57,000 --> 00:26:59,000

Can you teach me how to do this?

451

00:26:59,000 --> 00:27:01,000

Absolutely. Yes. I love to teach people how to do this.

452

00:27:01,000 --> 00:27:03,000

Let's do it. All right.

453

00:27:03,000 --> 00:27:05,000

The boys dish the dirt side by side.

454

00:27:05,000 --> 00:27:11,000

It's a proof of concept cooking lesson that hopefully works just as well with manure.

455

00:27:11,000 --> 00:27:15,000

You know, usually on the show, I'm connecting to my 14 year old self, the pyromaniac.

456

00:27:15,000 --> 00:27:17,000

Now I'm connecting to my four year old self.

457

00:27:17,000 --> 00:27:18,000

You're looking pretty good there.

458

00:27:18,000 --> 00:27:20,000

I think you could start to pick that up and get your hands dirty.

459

00:27:20,000 --> 00:27:22,000

All right.

460

00:27:23,000 --> 00:27:29,000

They need a good balance of dirt and water to shape a sphere the size of a pool ball.

461

00:27:29,000 --> 00:27:33,000

And remember, this is nothing more than a ball of mud.

462

00:27:33,000 --> 00:27:36,000

Now I feel like I want to add just like a little tiny bit of water.

463

00:27:36,000 --> 00:27:38,000

I really want to try and get water out of it.

464

00:27:38,000 --> 00:27:40,000

Okay.

465

00:27:40,000 --> 00:27:44,000

If you feel that it's too dry, maybe it's like crumbling, then yeah, you may want to add some water

to it.

466

00:27:44,000 --> 00:27:47,000

No, I feel like I'm right on the edge.

467

00:27:47,000 --> 00:27:50,000

Adam soon adapts to the rolling rhythm.

468

00:27:50,000 --> 00:27:53,000

This is so much fun.

469

00:27:53,000 --> 00:27:57,000

And the frequent trips to the fridge to speed up the condensation.

470

00:27:57,000 --> 00:28:00,000

So 25 minutes, we pull them out.

471

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

Sounds great.

472

00:28:01,000 --> 00:28:04,000

It all takes time, but it could be worse.

473

00:28:04,000 --> 00:28:12,000

If you're doing this the old fashioned way with no refrigerator outside, it'll take more like a week or longer as you leave it outside.

474

00:28:12,000 --> 00:28:14,000

Now Adam has a surprise for Jason.

475

00:28:14,000 --> 00:28:17,000

So Jason, I know I haven't told you what the whole purpose of this is.

476

00:28:17,000 --> 00:28:24,000

I'm wondering how well this process would translate to poop.

477

00:28:24,000 --> 00:28:27,000

To polishing poop.

478

00:28:27,000 --> 00:28:32,000

It could be done, I think.

479

00:28:32,000 --> 00:28:35,000

That's all I needed to know.

480

00:28:35,000 --> 00:28:40,000

I'm starting to feel like this is definitely applicable to poop.

481

00:28:40,000 --> 00:28:43,000

And I guess you would definitely call that Dorodongo.

482

00:28:48,000 --> 00:28:51,000

Well, I suppose we should talk about where this came from.

483

00:28:51,000 --> 00:28:54,000

Well, in this case we have better than a citation.

484

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

We've got actor, director and comedian Jerry Lewis who claims he coined the phrase.

485

00:28:58,000 --> 00:29:00,000

Yeah, it was in the late 60s.

486

00:29:00,000 --> 00:29:07,000

He was in his editing suite working on his latest film and Stanley Kubrick walks in asking if he can watch.

487

00:29:07,000 --> 00:29:13,000

Well, Lewis responds implying that the film was no good, that you can't polish.

488

00:29:13,000 --> 00:29:16,000

And it's been in the popular culture ever since.

489

00:29:17,000 --> 00:29:19,000

Check it out!

490

00:29:19,000 --> 00:29:23,000

Time to amend some fences with a method we hope they both agree on.

491

00:29:23,000 --> 00:29:24,000

Look at that.

492

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

That is dirt, water and this little elbow grease.

493

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

Does it bounce?

494

00:29:31,000 --> 00:29:36,000

No, I think it's actually pretty darn delicate, but I think this is our process.

495

00:29:36,000 --> 00:29:38,000

That's beautiful.

496

00:29:38,000 --> 00:29:43,000

I think we just need to choose the most dirt-like of the scat and start with that.

497

00:29:43,000 --> 00:29:44,000

Okay.

498

00:29:44,000 --> 00:29:47,000

Adam adopts the ostrich droppings.

499

00:29:48,000 --> 00:29:51,000

And Jamie decides on the lion leftovers.

500

00:29:51,000 --> 00:29:56,000

I need to take this and make a shiny mud ball out of it.

501

00:29:56,000 --> 00:30:06,000

Now this is lion poop and the reason I want to use it is because these guys are almost exclusively carnivores

502

00:30:06,000 --> 00:30:13,000

and their poop is going to be, you know, have a certain characteristic because of that.

503

00:30:13,000 --> 00:30:20,000

I'm holding on to a ball of wet dung and I have a hard time imagining that it's going to be shiny when I'm all done.

504

00:30:20,000 --> 00:30:27,000

At the same time, I'm so jazzed from my shiny mud ball that I'm optimistic that this is going to work.

505

00:30:29,000 --> 00:30:33,000

I'm actually really impressed how this lion poop is working.

506

00:30:33,000 --> 00:30:38,000

It has a really fine dust that comes out of it when you start to work it.

507

00:30:39,000 --> 00:30:45,000

Since the perimeter of any perfect ring will meet a perfect sphere all the way around,

508

00:30:45,000 --> 00:30:51,000

this kind of helps me just test and see that I'm reasonably close to a perfectly spherical.

509

00:30:53,000 --> 00:30:55,000

These are so simple.

510

00:30:55,000 --> 00:30:59,000

They're just, you know, there's nothing more pure than a sphere.

511

00:30:59,000 --> 00:31:03,000

Unless the sphere needs a shave, Jamie resists yelling,

512

00:31:03,000 --> 00:31:05,000

waiter, there's a hair in my poop.

513

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

He just takes care of business.

514

00:31:07,000 --> 00:31:09,000

That's working.

515

00:31:21,000 --> 00:31:28,000

Carrie Grant and Tori have risked life and limb to see if it really is faster to hit the ground running.

516

00:31:28,000 --> 00:31:30,000

Flailing feet prove nothing.

517

00:31:34,000 --> 00:31:37,000

And the hover bike was a total bust.

518

00:31:43,000 --> 00:31:49,000

But with much more weight and maybe more grip, this stunt sedan just might do the trick.

519

00:31:49,000 --> 00:31:51,000

I like driving.

520

00:31:51,000 --> 00:31:55,000

Driving and hopefully braking is Carrie Byron.

521

00:31:55,000 --> 00:32:00,000

My strategy to keep consistency is I am just going to floor it for the start of each one of these tests.

522

00:32:01,000 --> 00:32:03,000

Grant sets the mark at 300 feet.

523

00:32:03,000 --> 00:32:07,000

Now Carrie sets some times from a standing start.

524

00:32:07,000 --> 00:32:11,000

Here we go in three, two, one, go.

525

00:32:14,000 --> 00:32:16,000

7.97.

526

00:32:16,000 --> 00:32:23,000

As before, they'll average these control runs to compare against hitting the ground running.

527

00:32:24,000 --> 00:32:33,000

Now that we have our data, the next step is to raise up the drive wheels, which are the front wheels, off the ground.

528

00:32:33,000 --> 00:32:36,000

I think this has a good chance of being faster.

529

00:32:36,000 --> 00:32:43,000

The car is more stable, it's got better traction, and the wheels are unlikely to stop when they hit the ground.

530

00:32:43,000 --> 00:32:45,000

But there could be a few problems.

531

00:32:45,000 --> 00:32:47,000

We could blop the tires.

532

00:32:47,000 --> 00:32:49,000

The car could swerve out of control.

533

00:32:49,000 --> 00:32:51,000

Or we could destroy the transmission.

534

00:32:51,000 --> 00:32:53,000

We're interested to see what happens.

535

00:32:55,000 --> 00:33:03,000

With the engine at full revs, this 4,000 pound car is rigged with a quick release to smash into the road at top speed.

536

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

We've never done anything like this before.

537

00:33:06,000 --> 00:33:10,000

So I guess we just have to cross our fingers and hope everything goes really well.

538

00:33:11,000 --> 00:33:16,000

And if things don't go well, well, there's no way anyone here can help her.

539

00:33:17,000 --> 00:33:24,000

Unlike the bike, the car wheels don't stop dead, but they do seem to struggle for traction.

540

00:33:25,000 --> 00:33:27,000

The front end is up off the ground.

541

00:33:27,000 --> 00:33:29,000

The wheels are spinning as fast as they can go.

542

00:33:29,000 --> 00:33:35,000

I pull the release and it bounces off the pavement, skids out and takes off.

543

00:33:39,000 --> 00:33:41,000

Tires didn't pop, so I think we're good.

544

00:33:41,000 --> 00:33:42,000

We'll be able to do another test.

545

00:33:42,000 --> 00:33:45,000

That's a green light for a second run.

546

00:33:45,000 --> 00:33:47,000

This is the craziest thing ever.

547

00:33:47,000 --> 00:33:54,000

You're standing down here at the end of the line and you see once the car hits the ground, huge

cloud of smoke.

548

00:33:55,000 --> 00:34:01,000

And I'm not quite sure actually if the car is moving towards me until it breaks through the smoke and I can see it accelerating.

549

00:34:02,000 --> 00:34:04,000

Incredibly, nothing's broken.

550

00:34:04,000 --> 00:34:08,000

So Carrie hooks up for her third and final drop drag.

551

00:34:15,000 --> 00:34:24,000

That was so awesome.

552

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

The redneck and me screaming the whole way.

553

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

I love a good burnout.

554

00:34:31,000 --> 00:34:33,000

I'm sure the test went well too.

555

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

At the end of a day charged by hormones and horsepower, it all comes down to timing.

556

00:34:39,000 --> 00:34:43,000

It was hitting the ground running faster than a standing start.

557

00:34:43,000 --> 00:34:46,000

Now as cool as that was, I don't know if it made it any faster.

558

00:34:46,000 --> 00:34:49,000

You know, I was concentrating so hard on just going straight at it.

559

00:34:49,000 --> 00:34:51,000

It just all went slow motion for me.

560

00:34:51,000 --> 00:34:54,000

All right, well the results are in and it was very close.

561

00:34:54,000 --> 00:35:00,000

Now the average for the control test for the whole 300 feet, 7.88 seconds.

562

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

What was hitting the ground running?

563

00:35:02,000 --> 00:35:06,000

The average of hitting the ground running, 8.04 seconds.

564

00:35:06,000 --> 00:35:09,000

Yes, we busted this one!

565

00:35:09,000 --> 00:35:11,000

And we busted the car so we gotta push it home.

566

00:35:11,000 --> 00:35:15,000

We've tried it running, cycling and now motoring.

567

00:35:15,000 --> 00:35:20,000

This is one idiom that works better in theory than in practice.

568

00:35:20,000 --> 00:35:22,000

Push harder!

569

00:35:22,000 --> 00:35:24,000

Wait, who's steering?

570

00:35:33,000 --> 00:35:38,000

For Adam and Jamie, it's been three long days of shaping and buffing.

571

00:35:38,000 --> 00:35:43,000

But thanks to the ancient art of Dorodango, they've got a real chance

572

00:35:43,000 --> 00:35:46,000

of actually imparting a polish to poop.

573

00:35:46,000 --> 00:35:49,000

You know, the casual viewer might look at this and say,

574

00:35:49,000 --> 00:35:52,000

pardon the pun, what a load of crap.

575

00:35:52,000 --> 00:35:55,000

Who needs to know this? This is disgusting.

576

00:35:55,000 --> 00:35:58,000

But I'm actually really fascinated by this.

577

00:35:58,000 --> 00:36:02,000

Even if it is a disgusting material, it's totally unlikely.

578

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

And yet by really thinking carefully about it

579

00:36:05,000 --> 00:36:10,000

and by polishing and working it, we've actually got a lovely shine on this.

580

00:36:10,000 --> 00:36:13,000

Of course, it's not all smiles and sunshine.

581

00:36:13,000 --> 00:36:16,000

The balls still stink to high heaven.

582

00:36:16,000 --> 00:36:17,000

They're unsanitary.

583

00:36:17,000 --> 00:36:21,000

And Adam's made a mess of the pants he was going to wear to the Emmys.

584

00:36:21,000 --> 00:36:24,000

I swear that is as shiny as I'm going to get it.

585

00:36:24,000 --> 00:36:26,000

It's pretty good.

586

00:36:26,000 --> 00:36:28,000

Now, here's the rub.

587

00:36:28,000 --> 00:36:32,000

What exactly defines a polish and how do you measure it?

588

00:36:32,000 --> 00:36:34,000

Adam's left nothing to chance.

589

00:36:34,000 --> 00:36:38,000

Because the whole point of this exercise is to polish a poop to question remains.

590

00:36:38,000 --> 00:36:40,000

How do we know when we get there?

591

00:36:40,000 --> 00:36:42,000

What is shiny? What is polished?

592

00:36:42,000 --> 00:36:46,000

Well, we've got a gloss meter here, which measures shininess in gloss units.

593

00:36:46,000 --> 00:36:50,000

And we know that anything above a gloss unit measurement of 70

594

00:36:50,000 --> 00:36:52,000

is considered high gloss or polished.

595

00:36:52,000 --> 00:36:55,000

And I submit that that is our target.

596

00:36:55,000 --> 00:37:00,000

First, I'm going to run it through its paces with this shiny chrome ball,

597

00:37:00,000 --> 00:37:05,000

which no one would dispute is a very polished ball.

598

00:37:05,000 --> 00:37:09,000

The gloss reading on polish chrome should give us some idea

599

00:37:09,000 --> 00:37:13,000

of whether or not Adam's dung ball will make the grade.

600

00:37:13,000 --> 00:37:14,000

Okay.

601

00:37:14,000 --> 00:37:17,000

The results are in shiny chrome ball.

602

00:37:17,000 --> 00:37:19,000

275 gloss units.

603

00:37:19,000 --> 00:37:24,000

Now I'd like to measure my donna dungo.

604

00:37:24,000 --> 00:37:28,000

They've cramped their fingers, lost time with loved ones,

605

00:37:28,000 --> 00:37:33,000

and infused M5 with a stink that might just last forever.

606

00:37:33,000 --> 00:37:38,000

But if they can bust this myth, well, it's almost worth it.

607

00:37:41,000 --> 00:37:43,000

106.

608

00:37:43,000 --> 00:37:50,000

Remember anything above a gloss units of 70 is high gloss and I got 106.

609

00:37:50,000 --> 00:37:53,000

So I succeeded in polishing a poop.

610

00:37:53,000 --> 00:37:55,000

Let's go get Jamie's.

611

00:37:56,000 --> 00:38:01,000

Dude, I achieved high gloss according to our gloss meter.

612

00:38:01,000 --> 00:38:06,000

Not bad for like a lot of grass and other things in there.

613

00:38:06,000 --> 00:38:07,000

Yeah, I got 106.

614

00:38:07,000 --> 00:38:08,000

Wow.

615

00:38:08,000 --> 00:38:11,000

I can just about see myself in it.

616

00:38:11,000 --> 00:38:12,000

Oh, we got to test yours.

617

00:38:12,000 --> 00:38:13,000

Come on, let's go.

618

00:38:13,000 --> 00:38:14,000

Okay.

619

00:38:14,000 --> 00:38:17,000

Jamie, you'll recall, chose the lion dung.

620

00:38:17,000 --> 00:38:21,000

So in this bizarre quest for the best and brightest,

621

00:38:21,000 --> 00:38:23,000

it's carnivore versus herbivore.

622

00:38:23,000 --> 00:38:27,000

Nicely done, 183 gloss units.

623

00:38:27,000 --> 00:38:31,000

So you should know anything above 70 gloss units is considered high gloss

624

00:38:31,000 --> 00:38:32,000

and you knocked it out of the park.

625

00:38:32,000 --> 00:38:35,000

So I guess I succeeded.

626

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

This is nothing but poop.

627

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

Yeah.

628

00:38:39,000 --> 00:38:41,000

And like, what was it?

629

00:38:41,000 --> 00:38:44,000

Three or four days of constant polishing in my off time?

630

00:38:44,000 --> 00:38:46,000

Who knew?

631

00:38:46,000 --> 00:38:50,000

Well, 106 gloss units for ostrich.

632

00:38:50,000 --> 00:38:53,000

183 for lion.

633

00:38:53,000 --> 00:38:54,000

They're shiny.

634

00:38:54,000 --> 00:38:55,000

They are.

635

00:38:55,000 --> 00:38:57,000

I'd say we've handily busted this man.

636

00:38:57,000 --> 00:38:59,000

You can in fact polish a poop.

637

00:38:59,000 --> 00:39:00,000

Yes, you can.

638

00:39:00,000 --> 00:39:01,000

It's busted.

639

00:39:10,000 --> 00:39:13,000

I hope you accept my apologies for the early explode us in deruptus.

640

00:39:13,000 --> 00:39:17,000

Firing in three, two, one.

641

00:39:17,000 --> 00:39:18,000

Wait, wait, wait, hold on, hold on.

642

00:39:18,000 --> 00:39:22,000

It's now the end of the show and now we can proceed with ending with the bang.

643

00:39:22,000 --> 00:39:28,000

In case you didn't remember, we've got a moped up there wrapped with a couple of hundred feet of debt cord.

644

00:39:28,000 --> 00:39:30,000

It's like a spider caught it really.

645

00:39:30,000 --> 00:39:32,000

And about a gallon of gasoline.

646

00:39:32,000 --> 00:39:38,000

We're just about to light that puppy up and it should be pretty spectacular.

647

00:39:41,000 --> 00:39:43,000

Ends with a bang? Are you ready?

648

00:39:43,000 --> 00:39:44,000

I'm ready.

649

00:39:44,000 --> 00:39:45,000

You sure?

650

00:39:45,000 --> 00:39:46,000

Just do it.

651

00:39:46,000 --> 00:39:50,000

Firing in three, two, one.

652

00:39:57,000 --> 00:39:59,000

That was suitably spectacular.

653

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

And suitably devastating.

654

00:40:08,000 --> 00:40:15,000

They've turned a moped into a no-ped, but this idiom is only halfway tested.

655

00:40:15,000 --> 00:40:17,000

Think I can still ride it?

656

00:40:18,000 --> 00:40:20,000

Well, that was a heck of a bang.

657

00:40:20,000 --> 00:40:23,000

That was one really good bang.

658

00:40:23,000 --> 00:40:25,000

Let's check the high speed.

659

00:40:25,000 --> 00:40:26,000

All right.

660

00:40:27,000 --> 00:40:30,000

We got our bang and it was a peach.

661

00:40:32,000 --> 00:40:36,000

But now Jamie's got this idea of destroying SUVs with thermite,

662

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

which is awesome because it probably doesn't mean a bang.

663

00:40:39,000 --> 00:40:44,000

Now we get two things to compare against each other

664

00:40:44,000 --> 00:40:48,000

to see if it really is best to end with a bang.

665

00:40:51,000 --> 00:40:54,000

What's the earliest reference we have for ending with a bang?

666

00:40:54,000 --> 00:40:56,000

The researchers had some trouble with this one,

667

00:40:56,000 --> 00:41:02,000

but they cleverly pulled up a 1925 poem by T.S. Eliot titled *The Hollow Man*,

668

00:41:02,000 --> 00:41:04,000

which ends with the stanza,

669

00:41:04,000 --> 00:41:09,000

This is the way the world ends, not with a bang, but with a whimper.

670

00:41:10,000 --> 00:41:13,000

So does that imply that it's better to end with a bang?

671

00:41:13,000 --> 00:41:14,000

I think that's what he's saying,

672

00:41:14,000 --> 00:41:19,000

and I think that idea hit the popular culture and came all the way around to us.

673

00:41:22,000 --> 00:41:26,000

But just what is Jamie's diabolical alternative?

674

00:41:27,000 --> 00:41:29,000

Let's ask the man himself.

675

00:41:29,000 --> 00:41:30,000

We're going to make some thermite.

676

00:41:30,000 --> 00:41:34,000

That means I'm going to take this and mix it with this in that,

677

00:41:34,000 --> 00:41:37,000

and we're going to cut that in half.

678

00:41:38,000 --> 00:41:42,000

Okay, that's nice and brief, but we'll need a bit more detail.

679

00:41:42,000 --> 00:41:47,000

Thermite is a mix of iron oxide and finely powdered aluminum

680

00:41:47,000 --> 00:41:49,000

that burns at super hot temperatures.

681

00:41:49,000 --> 00:41:52,000

We used it previously during the Hindenburg episode

682

00:41:52,000 --> 00:41:55,000

to a pretty spectacular effect, as you can see.

683

00:41:55,000 --> 00:42:00,000

The Hindenburg had a paint job partly based on the key components of thermite,

684

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

which at least contributed to this historic fireball.

685

00:42:05,000 --> 00:42:09,000

Thermite also used to build bombs and in commercial demolition,

686

00:42:09,000 --> 00:42:12,000

so it's not the kind of thing you buy pre-packaged.

687

00:42:14,000 --> 00:42:18,000

So Jamie has to mix his own, very, very carefully.

688

00:42:18,000 --> 00:42:22,000

The only people that we could find that are used to working with this kind of quantity of thermite

689

00:42:22,000 --> 00:42:25,000

normally make solid rocket boosters.

690

00:42:25,000 --> 00:42:28,000

And they told me that I need to be really careful with this

691

00:42:28,000 --> 00:42:31,000

because even mixing it in a mixer like this

692

00:42:31,000 --> 00:42:35,000

can generate enough heat from the friction that it could auto-ignite.

693

00:42:35,000 --> 00:42:39,000

And once this stuff goes off, you don't want to be around it,

694

00:42:39,000 --> 00:42:41,000

so we're keeping a close eye on it.

695

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

Cue the sacrificial SUV.

696

00:42:46,000 --> 00:42:49,000

It's Adam's job to prep the patient.

697

00:42:50,000 --> 00:42:55,000

I have to remove the tires because they don't want the tires to burn out here.

698

00:42:55,000 --> 00:42:57,000

So of all the things we're going to destroy,

699

00:42:57,000 --> 00:43:01,000

we're going to leave the burning molten rubber out of the equation

700

00:43:01,000 --> 00:43:04,000

and just set the car down on its frame.

701

00:43:06,000 --> 00:43:11,000

The first batch of bathtub thermite is bagged and distributed.

702

00:43:12,000 --> 00:43:16,000

So I figure we stuff these in around the engine

703

00:43:16,000 --> 00:43:20,000

and when it starts to run through the hood, it'll set them off.

704

00:43:21,000 --> 00:43:25,000

Now Adam's method gives an insight into Jamie's madness.

705

00:43:25,000 --> 00:43:30,000

He's landscaping the car with house bricks to form a flaming gutter.

706

00:43:30,000 --> 00:43:33,000

My vision is that we're going to create a river of thermite

707

00:43:33,000 --> 00:43:38,000

that's going to rain down on the inside of this SUV and cut it right in half.

708

00:43:38,000 --> 00:43:41,000

Now, is it going to do that?

709

00:43:41,000 --> 00:43:45,000

We don't have a clue. It hasn't been done before, but it's going to be cool.

710

00:43:45,000 --> 00:43:47,000

Something's just occurring to me.

711

00:43:47,000 --> 00:43:48,000

What's that?

712

00:43:48,000 --> 00:43:50,000

This is a freaking lot of thermite.

713

00:43:50,000 --> 00:43:53,000

Have you found anyone who's ever set off this much?

714

00:43:54,000 --> 00:43:56,000

Nowhere close.

715

00:43:56,000 --> 00:43:57,000

Cool.

716

00:43:57,000 --> 00:43:59,000

Maybe somebody has, but I couldn't find him.

717

00:43:59,000 --> 00:44:03,000

If he could, they probably wouldn't approve of this.

718

00:44:03,000 --> 00:44:08,000

By the time he's finished, Jamie's used more than a thousand pounds of thermite.

719

00:44:08,000 --> 00:44:10,000

I don't know, but I think that ought to do it.

720

00:44:10,000 --> 00:44:12,000

I ought to do something.

721

00:44:12,000 --> 00:44:17,000

It's like repeatedly trying to do things that only happen in cartoons.

722

00:44:17,000 --> 00:44:20,000

Well, if we don't, who will?

723

00:44:20,000 --> 00:44:24,000

The aim here is to stage a spectacle that's better than a bag.

724

00:44:24,000 --> 00:44:26,000

So, what are the odds?

725

00:44:26,000 --> 00:44:28,000

It burns at 4,500 degrees.

726

00:44:28,000 --> 00:44:32,000

It's self-oxidizing, meaning that you can't really put it out

727

00:44:32,000 --> 00:44:34,000

because it doesn't care what you do to it.

728

00:44:34,000 --> 00:44:39,000

And as far as we know, nobody's used this much before.

729

00:44:39,000 --> 00:44:41,000

It's going to be amazing.

730

00:44:41,000 --> 00:44:46,000

If this works the way we're planning, if we actually achieve just splitting this SUV down the middle,

731

00:44:46,000 --> 00:44:49,000

then absolutely it's going to be better than a bang.

732

00:44:49,000 --> 00:44:53,000

But I really, if anybody guesses to whether or not it's going to work.

733

00:44:53,000 --> 00:44:56,000

Okay, I'm going to light her up.

734

00:44:56,000 --> 00:44:57,000

Over.

735

00:44:59,000 --> 00:45:02,000

Don't you just love seeing history in the making?

736

00:45:02,000 --> 00:45:05,000

Jamie sets the slow burn fuses.

737

00:45:07,000 --> 00:45:09,000

Then Moses on back to safety.

738

00:45:12,000 --> 00:45:19,000

Personally, I'd take this over bang any day because this is something special.

739

00:45:19,000 --> 00:45:23,000

Once this stuff goes off, it's going to be nuts.

740

00:45:23,000 --> 00:45:27,000

I think something's starting to happen towards the rear of the car.

741

00:45:30,000 --> 00:45:32,000

Oh, cascading.

742

00:45:32,000 --> 00:45:33,000

Yeah.

743

00:45:36,000 --> 00:45:38,000

Oh, yeah.

744

00:45:39,000 --> 00:45:42,000

That's what I'm talking about.

745

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

Oh, it's coming out the windows.

746

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

It's definitely gotten into the cab.

747

00:45:48,000 --> 00:45:52,000

Burning thermite is three times hotter than molten lava.

748

00:45:52,000 --> 00:45:58,000

And the UV rays are so intense, you can't view it up close without a welder's mask.

749

00:45:58,000 --> 00:46:02,000

No wonder Jamie thought this might be better than a bang.

750

00:46:02,000 --> 00:46:06,000

Oh, my God, it's gorgeous.

751

00:46:09,000 --> 00:46:12,000

This is like the gift that keeps on giving.

752

00:46:12,000 --> 00:46:15,000

Look at the size of the cloud that's putting out.

753

00:46:20,000 --> 00:46:21,000

Wow.

754

00:46:24,000 --> 00:46:27,000

Oh, there it is. The river's running down.

755

00:46:27,000 --> 00:46:30,000

Yeah, you can see it dripping off the front of the car.

756

00:46:30,000 --> 00:46:32,000

Exactly. Oh, that's great.

757

00:46:35,000 --> 00:46:41,000

As the fire peaks then sputters, it looks like the thermite strip hasn't quite cleaved the roof.

758

00:46:41,000 --> 00:46:43,000

Looks like it's peering out.

759

00:46:43,000 --> 00:46:47,000

JD decides it's safe enough to venture forth.

760

00:46:47,000 --> 00:46:51,000

While it didn't really cleanly cut it right down the middle like I was hoping,

761

00:46:51,000 --> 00:46:54,000

there's not going to be a whole lot left of that car.

762

00:46:55,000 --> 00:47:00,000

You can't actually see where the two separate halves of the roof have dropped down.

763

00:47:00,000 --> 00:47:01,000

Oh, yeah.

764

00:47:01,000 --> 00:47:04,000

It cleanly sliced the whole roof where the main line was.

765

00:47:04,000 --> 00:47:08,000

But for some reason it didn't get all the way to the windshield and it didn't cut through the hood.

766

00:47:08,000 --> 00:47:09,000

No.

767

00:47:09,000 --> 00:47:12,000

But rending the roof wasn't the main aim.

768

00:47:12,000 --> 00:47:15,000

They just want to know one thing.

769

00:47:15,000 --> 00:47:17,000

Was this better than a bang?

770

00:47:17,000 --> 00:47:22,000

I'm sort of biased towards saying yes, because, I mean,

771

00:47:22,000 --> 00:47:26,000

the amount of energy that was released here was just enormous.

772

00:47:26,000 --> 00:47:32,000

This was something that you just never see a thousand pounds of thermite going off.

773

00:47:32,000 --> 00:47:34,000

This was fantastic.

774

00:47:34,000 --> 00:47:36,000

I loved it.

775

00:47:36,000 --> 00:47:40,000

Well, for ends with a bang, we've got two beautiful points of comparison.

776

00:47:40,000 --> 00:47:44,000

On one hand, we've got the non-bang, and on the other hand, the bang.

777

00:47:44,000 --> 00:47:46,000

I like the non-bang.

778

00:47:46,000 --> 00:47:49,000

Yeah, and I like the bang, which means we're deadlocked.

779

00:47:49,000 --> 00:47:51,000

We can't call this one.

780

00:47:51,000 --> 00:47:54,000

Let's do something a little different and put it to the viewers.

781

00:47:54,000 --> 00:47:55,000

Let them decide.

782

00:48:03,000 --> 00:48:05,000

Well, we got our bang and we got our non-bang.

783

00:48:05,000 --> 00:48:09,000

But just in case you feel like ending this very episode with the bang,

784

00:48:09,000 --> 00:48:13,000

here's a few of my favorites starting off with a good old water heater explosion.

785

00:48:22,000 --> 00:48:24,000

Bang!

786

00:48:24,000 --> 00:48:26,000

Bang!

787

00:48:51,000 --> 00:48:53,000

Bang!