

**SKEPTIC  
ZONE**



THINKING CAPS  
MUST BE WORN  
IN THIS AREA

The  
Podcast  
from  
Australia  
for  
Science  
and  
Reason

[www.skepticzone.tv](http://www.skepticzone.tv)

1  
00:00:04,240 --> 00:00:01,880  
and now a message from the inside of

2  
00:00:27,320 --> 00:00:04,250  
Richard Saunders walk-in refrigerator

3  
00:00:32,760 --> 00:00:30,420  
hello and welcome to the skeptic zone

4  
00:00:37,080 --> 00:00:32,770  
show number 22 for the twentieth of

5  
00:00:39,960 --> 00:00:37,090  
March Friday the twentieth of March 2009

6  
00:00:41,880 --> 00:00:39,970  
a special in between sort of show today

7  
00:00:44,850 --> 00:00:41,890  
we have an interview with alum shahe

8  
00:00:47,610 --> 00:00:44,860  
from the United Kingdom he's a science

9  
00:00:50,040 --> 00:00:47,620  
communicator or is he you'll find out

10  
00:00:52,200 --> 00:00:50,050  
soon a science teacher who has released

11  
00:00:54,780 --> 00:00:52,210  
a video project on the web all about the

12  
00:00:55,890 --> 00:00:54,790  
importance of teaching science he is

13  
00:00:59,369 --> 00:00:55,900

going to be talking to our reporter

14

00:01:01,619 --> 00:00:59,379

Kylie Sturgis then I'll be having a chat

15

00:01:03,810 --> 00:01:01,629

with dr. Karen stalls no from Australian

16

00:01:06,180 --> 00:01:03,820

skeptics and one of our reporters about

17

00:01:09,000 --> 00:01:06,190

her role is the new editor of the

18

00:01:11,040 --> 00:01:09,010

skeptic magazine followed by a catch up

19

00:01:13,290 --> 00:01:11,050

with dr. rachey where she's going to be

20

00:01:15,630 --> 00:01:13,300

commenting on some of the interesting

21

00:01:19,980 --> 00:01:15,640

developments she's had with the life

22

00:01:22,290 --> 00:01:19,990

wave from last week so I'll leave you to

23

00:01:38,649 --> 00:01:22,300

enjoy the show while I try to get out of

24

00:01:43,490 --> 00:01:40,969

you've just seen me walk across the red

25

00:01:46,399 --> 00:01:43,500

hot coals at temperature of over 500

26  
00:01:48,050 --> 00:01:46,409  
degrees Celsius I could tell you but I'm

27  
00:01:50,059 --> 00:01:48,060  
an expert in an ancient form of

28  
00:01:53,270 --> 00:01:50,069  
meditation that lets me block out pain

29  
00:01:55,580 --> 00:01:53,280  
at will I could then tell you that you

30  
00:01:57,760 --> 00:01:55,590  
could lead a happier life if you follow

31  
00:02:00,289 --> 00:01:57,770  
my teachings for a small fee of course

32  
00:02:03,139 --> 00:02:00,299  
or i could tell you the truth that

33  
00:02:05,210 --> 00:02:03,149  
walking on hot coals doesn't require any

34  
00:02:06,589 --> 00:02:05,220  
kind of magical powers it's just the

35  
00:02:08,930 --> 00:02:06,599  
case that the coals are a poor conductor

36  
00:02:10,370 --> 00:02:08,940  
of heat and i walked so quickly that

37  
00:02:13,039 --> 00:02:10,380  
there's hardly any time for heat

38  
00:02:15,470 --> 00:02:13,049

transfer to take place separating truth

39

00:02:21,350 --> 00:02:15,480

from fraudulent mumbo-jumbo is just one

40

00:02:23,240 --> 00:02:21,360

reason why science is important I'm

41

00:02:24,890 --> 00:02:23,250

Carly Sturgis and you have just heard

42

00:02:27,530 --> 00:02:24,900

part of the introduction to the

43

00:02:29,809 --> 00:02:27,540

documentary why is science important a

44

00:02:33,050 --> 00:02:29,819

film and blog project by a longshot ha

45

00:02:34,520 --> 00:02:33,060

funded by the Wellcome Trust along is a

46

00:02:37,099 --> 00:02:34,530

physics teacher at an inner-city

47

00:02:39,140 --> 00:02:37,109

comprehensive school where science as in

48

00:02:42,199 --> 00:02:39,150

all UK schools is compulsory for

49

00:02:43,729 --> 00:02:42,209

students up to the age of 16 he says

50

00:02:45,410 --> 00:02:43,739

that he wears his passion for science on

51  
00:02:47,150 --> 00:02:45,420  
his sleeve but doesn't think that's

52  
00:02:49,580 --> 00:02:47,160  
enough to convince all of these students

53  
00:02:51,620 --> 00:02:49,590  
that science is important nor does he

54  
00:02:53,449 --> 00:02:51,630  
think like some in his profession that

55  
00:02:55,370 --> 00:02:53,459  
the importance of science is implicit in

56  
00:02:57,830 --> 00:02:55,380  
the courses taught or that it will

57  
00:03:00,650 --> 00:02:57,840  
somehow seep into students minds after a

58  
00:03:02,840 --> 00:03:00,660  
certain number of hours at school this

59  
00:03:04,849 --> 00:03:02,850  
little on to interview nearly 70

60  
00:03:07,280 --> 00:03:04,859  
scientists philosophers and science

61  
00:03:09,349 --> 00:03:07,290  
consultants worldwide in order to answer

62  
00:03:11,420 --> 00:03:09,359  
the question which his students posed in

63  
00:03:12,890 --> 00:03:11,430

the documentary what's the point of

64

00:03:14,809 --> 00:03:12,900

science

65

00:03:16,850 --> 00:03:14,819

Alam has previously worked as a

66

00:03:19,369 --> 00:03:16,860

development producer on several TV

67

00:03:21,410 --> 00:03:19,379

programs and films including patterns in

68

00:03:23,960 --> 00:03:21,420

nature lords of the Ring about the Large

69

00:03:25,429 --> 00:03:23,970

Hadron Collider he has been recognized

70

00:03:27,410 --> 00:03:25,439

with a fellowship from the National

71

00:03:29,690 --> 00:03:27,420

Endowment for science technology and the

72

00:03:32,479 --> 00:03:29,700

arts and you can visit the official site

73

00:03:40,670 --> 00:03:32,489

for why is science important at the

74

00:03:41,839 --> 00:03:40,680

website ww-why science co uk firstly

75

00:03:44,869 --> 00:03:41,849

thank you along for doing this interview

76

00:03:47,149 --> 00:03:44,879

during a very busy school year how did

77

00:03:49,550 --> 00:03:47,159

the documentary why a science important

78

00:03:53,690 --> 00:03:49,560

come to be I guess the project really

79

00:03:55,789 --> 00:03:53,700

started in January 2008 when I returned

80

00:03:59,270 --> 00:03:55,799

to teaching after spending about seven

81

00:04:01,910 --> 00:03:59,280

years working as a TV producer and upon

82

00:04:05,420 --> 00:04:01,920

returning to the classroom I started to

83

00:04:08,119 --> 00:04:05,430

feel that my students didn't really know

84

00:04:10,550 --> 00:04:08,129

why they had to do science that there

85

00:04:12,009 --> 00:04:10,560

was nothing about the course or about

86

00:04:14,920 --> 00:04:12,019

what they were supposed to learn that

87

00:04:17,210 --> 00:04:14,930

really conveyed to them why science is

88

00:04:20,210 --> 00:04:17,220

absolutely important and why they should

89

00:04:22,189 --> 00:04:20,220

learn it and I discuss this with other

90

00:04:24,080 --> 00:04:22,199

teachers and so forth and was kind of a

91

00:04:25,930 --> 00:04:24,090

bit depressed to find that the standard

92

00:04:28,100 --> 00:04:25,940

answer was something along the lines of

93

00:04:30,529 --> 00:04:28,110

Sciences everywhere and we live in a

94

00:04:31,550 --> 00:04:30,539

technological world and therefore you

95

00:04:33,589 --> 00:04:31,560

need to know about science and

96

00:04:36,469 --> 00:04:33,599

personally I don't think those are good

97

00:04:39,020 --> 00:04:36,479

answers I I think as I say in the film i

98

00:04:43,040 --> 00:04:39,030

think the the importance of studying

99

00:04:44,540 --> 00:04:43,050

science is that it gives you thinking

100

00:04:46,969 --> 00:04:44,550

skills it gives you a way of looking at

101

00:04:49,969 --> 00:04:46,979

the world that is incredibly rich and

102

00:04:53,420 --> 00:04:49,979

rewarding um that can help you make

103

00:04:55,790 --> 00:04:53,430

better decisions in life and have the

104

00:04:58,250 --> 00:04:55,800

intellectual tools to deal with life

105

00:04:59,570 --> 00:04:58,260

better I didn't feel that this is the

106

00:05:01,430 --> 00:04:59,580

message that was getting through to my

107

00:05:03,560 --> 00:05:01,440

students and I certainly didn't feel

108

00:05:06,200 --> 00:05:03,570

that many of my colleagues in the

109

00:05:08,510 --> 00:05:06,210

profession were necessarily getting

110

00:05:11,870 --> 00:05:08,520

these other ideas about why science is

111

00:05:14,149 --> 00:05:11,880

important across to their students and I

112

00:05:16,820 --> 00:05:14,159

I just wanted to do something that would

113

00:05:18,980 --> 00:05:16,830

would rectify that and that may have

114

00:05:23,180 --> 00:05:18,990

been a grand ambition it may have been

115

00:05:25,740 --> 00:05:23,190

pretentious but at least the project is

116

00:05:28,470 --> 00:05:25,750

out there now so hopefully

117

00:05:30,360 --> 00:05:28,480

if some student ever gets set an essay

118

00:05:31,620 --> 00:05:30,370

by their teacher why it's important

119

00:05:33,660 --> 00:05:31,630

they'll be able to google it and come

120

00:05:35,460 --> 00:05:33,670

across my site and get some really

121

00:05:37,410 --> 00:05:35,470

decent answers well I think will be

122

00:05:40,080 --> 00:05:37,420

highly valued by great many people not

123

00:05:42,150 --> 00:05:40,090

just students one great element of Y

124

00:05:44,190 --> 00:05:42,160

science important are the numbers of

125

00:05:46,470 --> 00:05:44,200

contributors to the project including

126

00:05:49,050 --> 00:05:46,480

doctors feel played Simon Singh Susan

127

00:05:51,540 --> 00:05:49,060

Blackmore there's nearly 70 people who

128

00:05:53,280 --> 00:05:51,550

took part in it overall isn't that there

129

00:05:55,170 --> 00:05:53,290

are lots of participants there are lots

130

00:05:58,560 --> 00:05:55,180

of people who contributed to the project

131

00:06:00,930 --> 00:05:58,570

and I was really quite taken aback by

132

00:06:03,690 --> 00:06:00,940

the positive response from from the

133

00:06:06,510 --> 00:06:03,700

science community and all the other

134

00:06:08,880 --> 00:06:06,520

people who contributed and it's been

135

00:06:11,460 --> 00:06:08,890

quite overwhelming and I think that's

136

00:06:13,530 --> 00:06:11,470

evidence that this is a question that

137

00:06:15,600 --> 00:06:13,540

resonated with people and that this is a

138

00:06:17,670 --> 00:06:15,610

project that people felt needed to be

139

00:06:19,560 --> 00:06:17,680

done at the start of the documentary you

140

00:06:21,510 --> 00:06:19,570

even take it to trainee teachers and

141

00:06:23,610 --> 00:06:21,520

reflect upon how even in the profession

142

00:06:25,230 --> 00:06:23,620

of teaching we need to investigate our

143

00:06:28,290 --> 00:06:25,240

own reasons for promoting science

144

00:06:30,180 --> 00:06:28,300

literacy is that true I'm terribly

145

00:06:31,560 --> 00:06:30,190

conscious that you know there might be

146

00:06:33,840 --> 00:06:31,570

some people out there who say who is

147

00:06:35,430 --> 00:06:33,850

this guy trying to tell other teachers

148

00:06:36,480 --> 00:06:35,440

what they should be doing but I'm hoping

149

00:06:39,090 --> 00:06:36,490

they won't think that and they'll think

150

00:06:40,320 --> 00:06:39,100

that this is a tremendous be useful

151  
00:06:42,719 --> 00:06:40,330  
resource that they can point their

152  
00:06:44,520 --> 00:06:42,729  
students to or that you know might help

153  
00:06:46,170 --> 00:06:44,530  
them clarify their own ideas about why

154  
00:06:47,969 --> 00:06:46,180  
science is important whether

155  
00:06:49,890 --> 00:06:47,979  
interviewees who particularly surprised

156  
00:06:52,350 --> 00:06:49,900  
your produced answers that you really

157  
00:06:54,480 --> 00:06:52,360  
liked well one of the first answers I

158  
00:06:56,610 --> 00:06:54,490  
got was from mark made of Nick who's an

159  
00:07:02,370 --> 00:06:56,620  
old friend of mine and his answer was

160  
00:07:03,650 --> 00:07:02,380  
that a science is your mum besides pop

161  
00:07:06,719 --> 00:07:03,660  
culture I think that's one going to say

162  
00:07:07,950 --> 00:07:06,729  
and so I just don't feel like it's more

163  
00:07:09,090 --> 00:07:07,960

important than literature and I don't

164

00:07:10,950 --> 00:07:09,100

think it's more important than TV or

165

00:07:14,040 --> 00:07:10,960

film but I think it's as important and

166

00:07:15,570 --> 00:07:14,050

so and it doesn't it doesn't it doesn't

167

00:07:17,840 --> 00:07:15,580

you know at the moment is

168

00:07:21,360 --> 00:07:17,850

underappreciated in that sense and I

169

00:07:23,310 --> 00:07:21,370

guess I feel like it's part of who we

170

00:07:25,440 --> 00:07:23,320

are it's part of being human is science

171

00:07:28,560 --> 00:07:25,450

it's not different from being human it

172

00:07:31,380 --> 00:07:28,570

is what makes you human you know when

173

00:07:33,030 --> 00:07:31,390

our ancestors first we'll judging around

174

00:07:35,460 --> 00:07:33,040

in the mud on a day like today which is

175

00:07:37,050 --> 00:07:35,470

really horrible I mean today is when you

176

00:07:39,029 --> 00:07:37,060

realize science important if if we can

177

00:07:39,439 --> 00:07:39,039

have science we would all be miserable

178

00:07:42,439 --> 00:07:39,449

too

179

00:07:45,950 --> 00:07:42,449

is cold it's wet it's rainy the fact

180

00:07:47,839 --> 00:07:45,960

that we've got heating buildings cars to

181

00:07:49,999 --> 00:07:47,849

drive around in buses try that is

182

00:07:51,379 --> 00:07:50,009

science that's it you know it's a part

183

00:07:53,809 --> 00:07:51,389

of sight apart the importance of start

184

00:07:55,219 --> 00:07:53,819

is the fact that you know we can't

185

00:07:57,619 --> 00:07:55,229

survive in most parts of the world

186

00:07:59,719 --> 00:07:57,629

without science that's given us the

187

00:08:01,579 --> 00:07:59,729

ability to survive and actually to think

188

00:08:03,739 --> 00:08:01,589

high things to appreciate poetry to

189

00:08:05,329 --> 00:08:03,749

appreciate literature to fall in love to

190

00:08:07,730 --> 00:08:05,339

actually live together for someone for

191

00:08:10,309 --> 00:08:07,740

30 40 50 years that's besides as let us

192

00:08:11,929 --> 00:08:10,319

do that before this you had a life

193

00:08:14,179 --> 00:08:11,939

expectancy of 30 years you know it was

194

00:08:16,070 --> 00:08:14,189

life was brutal and probably quite

195

00:08:17,540 --> 00:08:16,080

sublime in that sense if you enjoy

196

00:08:20,390 --> 00:08:17,550

sitting on the sofa watching the telly

197

00:08:23,659 --> 00:08:20,400

it's because that science has allowed

198

00:08:25,700 --> 00:08:23,669

that to happen and so it's a bit like

199

00:08:26,929 --> 00:08:25,710

ignoring science and feeling Sciences

200

00:08:29,179 --> 00:08:26,939

kind of irrelevant to use a bit like

201  
00:08:31,100 --> 00:08:29,189  
dissing your mum you know it's just like

202  
00:08:33,920 --> 00:08:31,110  
it it's where you've come from you've

203  
00:08:35,209 --> 00:08:33,930  
got you haven't got to appreciate it but

204  
00:08:37,069 --> 00:08:35,219  
it is a bit like dissing your mum and

205  
00:08:38,540 --> 00:08:37,079  
it's a bit rude isn't it to diss your

206  
00:08:40,610 --> 00:08:38,550  
mum you shouldn't do that and people

207  
00:08:43,780 --> 00:08:40,620  
diss science in the same way and they

208  
00:08:46,970 --> 00:08:43,790  
really shouldn't do that it's your mom

209  
00:08:48,230 --> 00:08:46,980  
it was an intriguing answer and one that

210  
00:08:50,930 --> 00:08:48,240  
got the project off to a really good

211  
00:08:53,269 --> 00:08:50,940  
start I felt one of my other favorites

212  
00:08:55,460 --> 00:08:53,279  
is a cartoon strip by a chap called

213  
00:08:57,500 --> 00:08:55,470

Victor poor which you might need to

214

00:08:58,970 --> 00:08:57,510

think about for a little bit but I think

215

00:09:01,129 --> 00:08:58,980

it's a excellent response to the

216

00:09:03,100 --> 00:09:01,139

question now my personal favorite I

217

00:09:06,079 --> 00:09:03,110

think I'm a little bit torn between

218

00:09:08,540 --> 00:09:06,089

answers by Phil cook and Michael

219

00:09:11,780 --> 00:09:08,550

DePodesta they're both former teachers

220

00:09:13,819 --> 00:09:11,790

of mine so I am slightly biased but my

221

00:09:16,400 --> 00:09:13,829

cause assertion that the science is

222

00:09:19,069 --> 00:09:16,410

simply humanity's greatest achievement

223

00:09:22,850 --> 00:09:19,079

is something that I think I agree with

224

00:09:24,410 --> 00:09:22,860

and and that's why I really like that on

225

00:09:27,319 --> 00:09:24,420

sir because he just went out there and

226

00:09:29,110 --> 00:09:27,329

said it and I suspect many of the other

227

00:09:32,629 --> 00:09:29,120

respondents wish they had as well

228

00:09:34,400 --> 00:09:32,639

there's a kind of sense that perhaps we

229

00:09:37,280 --> 00:09:34,410

should it makes us sound arrogant to say

230

00:09:39,710 --> 00:09:37,290

such a thing but is it arrogant if it's

231

00:09:41,780 --> 00:09:39,720

the truth amongst your qualifications

232

00:09:43,610 --> 00:09:41,790

you'll also a science writer and you

233

00:09:47,960 --> 00:09:43,620

produce several films details of which

234

00:09:49,939 --> 00:09:47,970

can be found on the side WWF report com

235

00:09:52,129 --> 00:09:49,949

and you've said in a previous interview

236

00:09:54,170 --> 00:09:52,139

that science communication has to be

237

00:09:56,379 --> 00:09:54,180

much more than celebrating the wonder of

238

00:09:58,460 --> 00:09:56,389

science what led you to that conclusion

239

00:10:01,040 --> 00:09:58,470

okay first I'd like to make clear that

240

00:10:03,920 --> 00:10:01,050

the term science communication is a

241

00:10:05,509 --> 00:10:03,930

horrible one and it sounds awful and my

242

00:10:07,790 --> 00:10:05,519

friends laugh at me when when I tell

243

00:10:10,160 --> 00:10:07,800

them that's why i do but i think it's an

244

00:10:12,170 --> 00:10:10,170

increasingly important activity and I'll

245

00:10:15,679 --> 00:10:12,180

explain why in a minute when I first

246

00:10:16,910 --> 00:10:15,689

started working in this field science

247

00:10:18,860 --> 00:10:16,920

communication was a phrase that was

248

00:10:20,720 --> 00:10:18,870

associated with people who went round to

249

00:10:23,150 --> 00:10:20,730

schools and demonstrated things with

250

00:10:25,519 --> 00:10:23,160

liquid nitrogen made explosions and

251  
00:10:27,470 --> 00:10:25,529  
things now don't get me wrong I think

252  
00:10:29,840 --> 00:10:27,480  
there's a place for people like that

253  
00:10:33,710 --> 00:10:29,850  
they can genuinely help to enthuse

254  
00:10:35,420 --> 00:10:33,720  
children about science for example but I

255  
00:10:37,009 --> 00:10:35,430  
have to be honest art I don't think they

256  
00:10:39,850 --> 00:10:37,019  
do much more than that I don't think

257  
00:10:43,519 --> 00:10:39,860  
people who do these things have a

258  
00:10:46,629 --> 00:10:43,529  
lasting effect and I believe there's

259  
00:10:49,189 --> 00:10:46,639  
research which confirms my opinion now

260  
00:10:52,069 --> 00:10:49,199  
what I think science communication has

261  
00:10:55,970 --> 00:10:52,079  
to be about in in today's NH is is is

262  
00:10:57,019 --> 00:10:55,980  
about getting people to understand the

263  
00:10:58,939 --> 00:10:57,029

kind of social and political

264

00:11:01,100 --> 00:10:58,949

implications of science know what do I

265

00:11:03,999 --> 00:11:01,110

mean by that well you know we live in an

266

00:11:06,949 --> 00:11:04,009

age where everybody is aware that

267

00:11:09,230 --> 00:11:06,959

climate change is happening some people

268

00:11:10,970 --> 00:11:09,240

may want to be in denial about it but I

269

00:11:12,889 --> 00:11:10,980

think the majority of people understand

270

00:11:14,749 --> 00:11:12,899

and appreciate that we have this big

271

00:11:16,879 --> 00:11:14,759

problem that we're going to have to deal

272

00:11:20,090 --> 00:11:16,889

with and we're only going to be able to

273

00:11:22,990 --> 00:11:20,100

deal with it through using science now

274

00:11:25,519 --> 00:11:23,000

the public need to be informed of

275

00:11:27,619 --> 00:11:25,529

science in order to be able to make the

276

00:11:29,449 --> 00:11:27,629

kind of decisions that we may need to

277

00:11:31,189 --> 00:11:29,459

make in the future and then this is a

278

00:11:32,900 --> 00:11:31,199

point that came up over and over again

279

00:11:34,850 --> 00:11:32,910

in the survey and and it's covered well

280

00:11:37,040 --> 00:11:34,860

in the film and it's not just global

281

00:11:41,449 --> 00:11:37,050

warming it's things like you know how do

282

00:11:44,259 --> 00:11:41,459

we make best use of our tax money for

283

00:11:47,569 --> 00:11:44,269

medicine you know where should we be

284

00:11:50,389 --> 00:11:47,579

prioritizing other taxpayers monies in

285

00:11:52,850 --> 00:11:50,399

terms of scientific research these kind

286

00:11:55,819 --> 00:11:52,860

of decisions which every society on the

287

00:11:58,280 --> 00:11:55,829

planet needs to be making are based on

288

00:12:01,369 --> 00:11:58,290

science and unless we are science

289

00:12:04,719 --> 00:12:01,379

communicators do our best to make sure

290

00:12:08,029 --> 00:12:04,729

people are well informed we end up with

291

00:12:09,499 --> 00:12:08,039

stupid situations like for example what

292

00:12:11,589 --> 00:12:09,509

we have in the UK at the moment where

293

00:12:14,779 --> 00:12:11,599

people are rejecting the MMR vaccine

294

00:12:16,969 --> 00:12:14,789

largely through ignorance and that's why

295

00:12:18,889 --> 00:12:16,979

I think engaging people in this

296

00:12:21,019 --> 00:12:18,899

political and cultural issues around

297

00:12:23,329 --> 00:12:21,029

Sciences is far more important than

298

00:12:25,399 --> 00:12:23,339

saying oh look if you're a scientist you

299

00:12:26,719 --> 00:12:25,409

can make stuff blow up I think that

300

00:12:28,069 --> 00:12:26,729

there's enough people doing that and I

301  
00:12:30,379 --> 00:12:28,079  
think we need some more grown-up science

302  
00:12:32,149 --> 00:12:30,389  
communicators and again I'm sure that

303  
00:12:34,339 --> 00:12:32,159  
makes me sound arrogant but there you go

304  
00:12:36,259 --> 00:12:34,349  
you've got several films which can be

305  
00:12:38,479 --> 00:12:36,269  
found online when I was checking out

306  
00:12:40,729 --> 00:12:38,489  
wires science important on youtube I

307  
00:12:42,710 --> 00:12:40,739  
discovered several smaller documentaries

308  
00:12:44,839 --> 00:12:42,720  
one was called science is better than

309  
00:12:46,189 --> 00:12:44,849  
magic have you investigated the

310  
00:12:47,869 --> 00:12:46,199  
influence of magic tricks in the

311  
00:12:50,389 --> 00:12:47,879  
classroom and what do you think they

312  
00:12:52,489 --> 00:12:50,399  
contribute to learning as I say in my

313  
00:12:56,059 --> 00:12:52,499

video I'm probably not the only science

314

00:12:57,979 --> 00:12:56,069

geek who likes magic in fact I always

315

00:13:00,019 --> 00:12:57,989

seem to be meeting scientists who are

316

00:13:02,629 --> 00:13:00,029

brilliant at card tricks or coin tricks

317

00:13:05,029 --> 00:13:02,639

and I think there's a reason for that

318

00:13:08,090 --> 00:13:05,039

and I think the reason is we like to

319

00:13:10,519 --> 00:13:08,100

know how things work and and when you

320

00:13:12,949 --> 00:13:10,529

see a really brilliant magic trick what

321

00:13:14,449 --> 00:13:12,959

I do when I see a really brilliant magic

322

00:13:16,429 --> 00:13:14,459

trick what I do is try to work out how

323

00:13:18,409 --> 00:13:16,439

it works and I get a certain degree of

324

00:13:20,419 --> 00:13:18,419

satisfaction from knowing you know I

325

00:13:22,819 --> 00:13:20,429

think I know enough about magic that I

326

00:13:25,759 --> 00:13:22,829

can usually tell how a particular

327

00:13:28,939 --> 00:13:25,769

illusion is performed and that's kind of

328

00:13:31,069 --> 00:13:28,949

satisfying but only up to a point and

329

00:13:35,059 --> 00:13:31,079

that that's the point that I like to

330

00:13:38,239 --> 00:13:35,069

make to my students so i often use magic

331

00:13:41,329 --> 00:13:38,249

in the classroom to introduce the idea

332

00:13:43,399 --> 00:13:41,339

to my students that science is about

333

00:13:47,449 --> 00:13:43,409

knowing how things work knowing how

334

00:13:48,889 --> 00:13:47,459

really amazing things work and that with

335

00:13:51,469 --> 00:13:48,899

that knowledge you can go and do other

336

00:13:53,479 --> 00:13:51,479

amazing things so there's this parallel

337

00:13:55,549 --> 00:13:53,489

with science but with magic rather so

338

00:13:56,989 --> 00:13:55,559

there's this parallel with magic in

339

00:14:00,759 --> 00:13:56,999

science but science is kind of

340

00:14:03,710 --> 00:14:00,769

infinitely richer which may offend some

341

00:14:04,999 --> 00:14:03,720

magicians but I seem to be offending

342

00:14:07,399 --> 00:14:05,009

people left right and center with my

343

00:14:09,559 --> 00:14:07,409

view so there you go so yes science is

344

00:14:12,559 --> 00:14:09,569

better than magic because it's an

345

00:14:14,179 --> 00:14:12,569

infinitely richer a field of activity

346

00:14:15,199 --> 00:14:14,189

the use of magic tricks and the

347

00:14:19,389 --> 00:14:15,209

classroom is a really

348

00:14:22,069 --> 00:14:19,399

good way of engaging students initially

349

00:14:24,859 --> 00:14:22,079

but what I use it for is mainly to make

350

00:14:27,340 --> 00:14:24,869

the point that magic compared to science

351

00:14:29,179 --> 00:14:27,350

is really simple and uninteresting

352

00:14:30,619 --> 00:14:29,189

finally what are your plans for your

353

00:14:32,419 --> 00:14:30,629

next project I know you're in the middle

354

00:14:34,660 --> 00:14:32,429

of a very busy school term at the moment

355

00:14:38,989 --> 00:14:34,670

so will that be your focus for a while

356

00:14:41,840 --> 00:14:38,999

next projects okay so I I the film was

357

00:14:44,329 --> 00:14:41,850

only launched online literally or kind

358

00:14:45,739 --> 00:14:44,339

of a week and a half ago and frankly I'm

359

00:14:48,439 --> 00:14:45,749

absolutely exhausted it was an

360

00:14:50,329 --> 00:14:48,449

exhausting process making the film I was

361

00:14:52,730 --> 00:14:50,339

regularly working 18 hours a day six

362

00:14:54,410 --> 00:14:52,740

days a week and during the whole

363

00:14:56,509 --> 00:14:54,420

production of the film I was teaching

364

00:14:58,519 --> 00:14:56,519

three days a week as well it's one of

365

00:15:00,439 --> 00:14:58,529

the hardest things I've ever done and I

366

00:15:01,879 --> 00:15:00,449

just want to break now unfortunately

367

00:15:04,340 --> 00:15:01,889

I've still got two more weeks of school

368

00:15:07,400 --> 00:15:04,350

left until the Easter break but i'm

369

00:15:09,379 --> 00:15:07,410

planning to veg out for two weeks in all

370

00:15:11,150 --> 00:15:09,389

honesty i have got a couple of ideas up

371

00:15:13,340 --> 00:15:11,160

my sleeves but I'm not really ready to

372

00:15:15,439 --> 00:15:13,350

share that with the world yet but I'll

373

00:15:17,749 --> 00:15:15,449

let you know as soon as I am thank you

374

00:15:20,329 --> 00:15:17,759

very much along you can find his film

375

00:15:22,309 --> 00:15:20,339

why is science important by looking on

376

00:15:24,470 --> 00:15:22,319

YouTube and checking out the full blog

377

00:15:35,600 --> 00:15:24,480

project and all the contributors on the

378

00:15:44,430 --> 00:15:42,060

this far you're listening too far by

379

00:15:48,620 --> 00:15:44,440

George Arab you can find out more about

380

00:15:53,190 --> 00:15:48,630

George her ad by visiting his website at

381

00:15:54,990 --> 00:15:53,200

[www.allaboutdoors.com](http://www.allaboutdoors.com) where you can even

382

00:15:57,300 --> 00:15:55,000

find the lyrics to the song try singing

383

00:16:00,570 --> 00:15:57,310

along with it of course he's singing

384

00:16:04,740 --> 00:16:00,580

about the 365 days of astronomy podcast

385

00:16:08,370 --> 00:16:04,750

one podcast every day for 2009 and you

386

00:16:12,060 --> 00:16:08,380

can find that at 365 days of astronomy

387

00:16:21,250 --> 00:16:12,070

onward or go check it out there'll be a

388

00:16:27,960 --> 00:16:23,769

there by Carly today it's

389

00:16:30,970 --> 00:16:27,970

crazy just all stars and stars opposite

390

00:16:32,499 --> 00:16:30,980

George her ab let me tell you something

391

00:16:35,259 --> 00:16:32,509

about Georgia wrap the first time I met

392

00:16:38,340 --> 00:16:35,269

him was the amazing meeting six in Las

393

00:16:42,519 --> 00:16:38,350

Vegas I was on a panel with james randi

394

00:16:45,790 --> 00:16:42,529

Daniel Loxton Adam Savage Banacek been

395

00:16:49,329 --> 00:16:45,800

Radford dr. Steve novella and George

396

00:16:51,610 --> 00:16:49,339

Abbott after the panel he came up and

397

00:16:53,519 --> 00:16:51,620

thanked me for being part of the panel

398

00:16:56,139 --> 00:16:53,529

with him which I thought was rather nice

399

00:17:02,049 --> 00:16:56,149

next time I remember meeting George was

400

00:17:03,670 --> 00:17:02,059

a dragon con last year and I must be one

401  
00:17:05,289 --> 00:17:03,680  
of the only people who has ever fallen

402  
00:17:09,640 --> 00:17:05,299  
asleep during her George or a

403  
00:17:11,590 --> 00:17:09,650  
performance but I must say it was jet

404  
00:17:13,990 --> 00:17:11,600  
lag George it really was i thought your

405  
00:17:16,829 --> 00:17:14,000  
performance was funny was great it was

406  
00:17:20,500 --> 00:17:16,839  
full of energy and i nodded off to sleep

407  
00:17:22,299 --> 00:17:20,510  
much to my embarrassment I remember that

408  
00:17:25,870 --> 00:17:22,309  
party we went to George in that hotel

409  
00:17:27,850 --> 00:17:25,880  
room where I was bending spoons bending

410  
00:17:30,580 --> 00:17:27,860  
spoons for lots of people including the

411  
00:17:34,289 --> 00:17:30,590  
lovely astronomer the girl we all love

412  
00:17:37,060 --> 00:17:34,299  
Pamela gay and as I bent a spoon for her

413  
00:17:40,779 --> 00:17:37,070

eyring heard later you were sitting

414

00:17:49,340 --> 00:17:40,789

behind me giving commentary about what I

415

00:17:54,390 --> 00:17:52,800

well I'm here with dr. Karen stalls no

416

00:17:56,610 --> 00:17:54,400

reporter for the skeptic zone and more

417

00:17:59,100 --> 00:17:56,620

importantly maybe editor of the skeptic

418

00:18:00,780 --> 00:17:59,110

magazine Carrie maybe maybe editor

419

00:18:02,220 --> 00:18:00,790

people have been raving about the

420

00:18:03,600 --> 00:18:02,230

skeptic magazine can you tell us a

421

00:18:05,060 --> 00:18:03,610

little bit more about it we've been

422

00:18:07,470 --> 00:18:05,070

receiving so much positive feedback

423

00:18:09,870 --> 00:18:07,480

about the magazine then you look at the

424

00:18:11,580 --> 00:18:09,880

magazine then you content as well so I

425

00:18:14,130 --> 00:18:11,590

just keep sending your feedback in tell

426  
00:18:16,170 --> 00:18:14,140  
me what you want and I might listen you

427  
00:18:19,980 --> 00:18:16,180  
might you might I might I'm the editor

428  
00:18:22,020 --> 00:18:19,990  
up at the final scene ww skeptics calm

429  
00:18:24,180 --> 00:18:22,030  
daddy look the skeptic magazine you can

430  
00:18:26,670 --> 00:18:24,190  
read articles by your favorite skeptic

431  
00:18:31,080 --> 00:18:26,680  
zone reporters like Karen herself or dr.

432  
00:18:32,850 --> 00:18:31,090  
Richie are even Haley Sturgis and I

433  
00:18:34,650 --> 00:18:32,860  
think I'm hopefully Iran so give will be

434  
00:18:38,280 --> 00:18:34,660  
making contributions but better I'm on

435  
00:18:40,020 --> 00:18:38,290  
his case yeah so and and lots of other

436  
00:18:42,300 --> 00:18:40,030  
people who involved in the zone also

437  
00:18:43,830 --> 00:18:42,310  
helped make the skeptic magazine it's a

438  
00:18:46,380 --> 00:18:43,840

great magazine one of the best skeptical

439

00:18:49,110 --> 00:18:46,390

magazines in the world ww skeptics

440

00:18:50,190 --> 00:18:49,120

comdata you subscribe today and I tell

441

00:18:52,680 --> 00:18:50,200

you what you people listening in the

442

00:18:54,540 --> 00:18:52,690

United States the Australian dollar has

443

00:18:56,370 --> 00:18:54,550

tanked it's dived it's doing the

444

00:18:58,290 --> 00:18:56,380

Australian crawl it's gone to the bottom

445

00:19:01,160 --> 00:18:58,300

of the pool so if you buy something from

446

00:19:02,970 --> 00:19:01,170

Australia at the moment it's dirt cheap

447

00:19:07,140 --> 00:19:02,980

it's getting better and better all the

448

00:19:09,600 --> 00:19:07,150

time well this in-between sort of

449

00:19:11,880 --> 00:19:09,610

special show is not normally the show we

450

00:19:15,090 --> 00:19:11,890

have dr. Rachel reports but I'd like to

451

00:19:18,030 --> 00:19:15,100

have a little dr. rachy update hi dr. AG

452

00:19:20,760 --> 00:19:18,040

pirate suit last week's episode was life

453

00:19:23,190 --> 00:19:20,770

wave patches yeah actually can um can

454

00:19:26,010 --> 00:19:23,200

you not disturb me i'm reading living

455

00:19:29,010 --> 00:19:26,020

now the health and well-being free

456

00:19:30,240 --> 00:19:29,020

holistic magazine oh sorry this is a

457

00:19:32,250 --> 00:19:30,250

very interesting stuff in here actually

458

00:19:35,010 --> 00:19:32,260

in fact sorry you just mentioned a life

459

00:19:38,130 --> 00:19:35,020

way yes yeah you were just having a look

460

00:19:40,350 --> 00:19:38,140

at Nova Nova magazine folks that's your

461

00:19:41,880 --> 00:19:40,360

favorite oh it is it's a free magazine

462

00:19:43,590 --> 00:19:41,890

here in Sydney and most of Australia

463

00:19:46,590 --> 00:19:43,600

it's a quite a big publication

464

00:19:48,120 --> 00:19:46,600

physically big it's free as I've just

465

00:19:52,170 --> 00:19:48,130

said and

466

00:19:54,690 --> 00:19:52,180

um it's chock-a-block full of Wu's yeah

467

00:19:57,630 --> 00:19:54,700

it's Australia's realistic journalism

468

00:19:58,860 --> 00:19:57,640

touted as it says here that it's one

469

00:20:01,290 --> 00:19:58,870

hundred and thirty-eight thousand copies

470

00:20:02,250 --> 00:20:01,300

are distributed monthly free when I

471

00:20:03,540 --> 00:20:02,260

wouldn't doubt it it's full of

472

00:20:05,550 --> 00:20:03,550

advertising anyway what I was gonna say

473

00:20:07,380 --> 00:20:05,560

is since you mentioned advertising I

474

00:20:10,890 --> 00:20:07,390

came across an ad in her life wave

475

00:20:12,990 --> 00:20:10,900

patches we are there is one huge number

476

00:20:14,340 --> 00:20:13,000

nine page nine yet new breakthrough

477

00:20:17,540 --> 00:20:14,350

patch technology that will revolutionize

478

00:20:20,430 --> 00:20:17,550

the wellness industry isn't that amazing

479

00:20:24,080 --> 00:20:20,440

so you wanted to ask me about a no

480

00:20:26,550 --> 00:20:24,090

reaction you have received from not only

481

00:20:31,140 --> 00:20:26,560

doing your doctor each and life wavered

482

00:20:34,230 --> 00:20:31,150

the blogger yes I had a very interesting

483

00:20:38,160 --> 00:20:34,240

exchange with some believers on my blog

484

00:20:41,310 --> 00:20:38,170

in fact this week and it was it was very

485

00:20:43,020 --> 00:20:41,320

interesting because the first couple of

486

00:20:44,520 --> 00:20:43,030

posts i got from this person who turned

487

00:20:47,040 --> 00:20:44,530

out to be what I suspect is actually a

488

00:20:50,330 --> 00:20:47,050

distributor of these patches were very

489

00:20:53,460 --> 00:20:50,340

polite and very formal so dear Rachel no

490

00:20:54,930 --> 00:20:53,470

I've I've used these patches for five

491

00:20:55,890 --> 00:20:54,940

months now and I don't whilst I don't

492

00:20:57,950 --> 00:20:55,900

know anything about the glutathione

493

00:21:01,560 --> 00:20:57,960

patch specifically which was the one I

494

00:21:03,240 --> 00:21:01,570

described as being used for autism this

495

00:21:05,580 --> 00:21:03,250

person said that they had used the ice

496

00:21:08,570 --> 00:21:05,590

wave pain ones and that they've had a

497

00:21:10,530 --> 00:21:08,580

lot of success with them and you know I

498

00:21:11,940 --> 00:21:10,540

shouldn't try them because they're

499

00:21:13,080 --> 00:21:11,950

really are great and people shouldn't

500

00:21:14,550 --> 00:21:13,090

worry about the fact that it's Molly

501  
00:21:16,560 --> 00:21:14,560  
level marketing just use them and have a

502  
00:21:19,230 --> 00:21:16,570  
good life so it was very positive it was

503  
00:21:22,200 --> 00:21:19,240  
a nice placed as I wrote back to this

504  
00:21:24,030 --> 00:21:22,210  
person and in fact can I just refer to

505  
00:21:25,860 --> 00:21:24,040  
my notes because I have yes oh you've

506  
00:21:27,420 --> 00:21:25,870  
got your notes here with you we're

507  
00:21:29,940 --> 00:21:27,430  
actually here at our favorite Club we

508  
00:21:32,010 --> 00:21:29,950  
normally do the think tank from we're

509  
00:21:34,800 --> 00:21:32,020  
here tonight it's a tuesday night were

510  
00:21:37,650 --> 00:21:34,810  
here for trivia and last week we won so

511  
00:21:39,330 --> 00:21:37,660  
it worked quite optimistic about we had

512  
00:21:42,060 --> 00:21:39,340  
de ver happy singer with us oh you know

513  
00:21:45,760 --> 00:21:42,070

he claims that he won it for us doesn't

514

00:21:49,370 --> 00:21:48,170

yeah so this guy said that he in his

515

00:21:51,890 --> 00:21:49,380

opinion the patches do as they

516

00:21:53,930 --> 00:21:51,900

advertised and when I wrote back to him

517

00:21:55,760 --> 00:21:53,940

and suggested that that could be a

518

00:21:58,370 --> 00:21:55,770

possible placebo effect because he was

519

00:22:00,710 --> 00:21:58,380

talking about the pain ones having an

520

00:22:02,090 --> 00:22:00,720

effect and you know that's not and I'm

521

00:22:03,410 --> 00:22:02,100

falling off and growing back you know

522

00:22:06,140 --> 00:22:03,420

you're stippling on your head will feel

523

00:22:08,960 --> 00:22:06,150

bit better it's possibly a placebo and

524

00:22:11,090 --> 00:22:08,970

he responded with saying that what does

525

00:22:12,440 --> 00:22:11,100

it matter if it's placebo I'm happy to

526

00:22:13,880 --> 00:22:12,450

pay it it makes me feel better so that's

527

00:22:16,460 --> 00:22:13,890

fine and I said well that's all good and

528

00:22:17,930 --> 00:22:16,470

well but you know I'm as long as you've

529

00:22:19,580 --> 00:22:17,940

had a good experience that's fine but

530

00:22:22,070 --> 00:22:19,590

when it comes down to families and

531

00:22:24,830 --> 00:22:22,080

parents and kids with autism I think

532

00:22:26,870 --> 00:22:24,840

it's misleading of life wave to infer

533

00:22:31,400 --> 00:22:26,880

that they can be helpful in yeah in

534

00:22:33,350 --> 00:22:31,410

autism which is a disease like a few no

535

00:22:35,420 --> 00:22:33,360

unattached lemme it's not going to go

536

00:22:37,310 --> 00:22:35,430

away by itself like a nation might be a

537

00:22:38,960 --> 00:22:37,320

better description maybe sorry it's a

538

00:22:40,670 --> 00:22:38,970

year yeah you're right but we know what

539

00:22:41,750 --> 00:22:40,680

you mean yeah it's something that's not

540

00:22:44,030 --> 00:22:41,760

going to get better you through the

541

00:22:47,060 --> 00:22:44,040

course of the condition you know like a

542

00:22:49,190 --> 00:22:47,070

headache anyway so this time he wrote

543

00:22:51,560 --> 00:22:49,200

back he still said hi Rachel but he

544

00:22:53,240 --> 00:22:51,570

spins so do you believe in acupuncture

545

00:22:55,970 --> 00:22:53,250

and do you think all alternative

546

00:22:57,380 --> 00:22:55,980

therapies are bogus and so I had to

547

00:22:58,850 --> 00:22:57,390

really be careful to keep my head and

548

00:23:00,140 --> 00:22:58,860

just to be too very thoroughly address

549

00:23:02,750 --> 00:23:00,150

each one of his questions without

550

00:23:06,380 --> 00:23:02,760

calling him an idiot but um oh here's

551  
00:23:11,060 --> 00:23:06,390  
your steak oh yeah thank you oh that

552  
00:23:12,200 --> 00:23:11,070  
looks good kindle mistakes folks oh it's

553  
00:23:14,240 --> 00:23:12,210  
just tend to a steak night and they were

554  
00:23:17,960 --> 00:23:14,250  
quite good I might get one no no you got

555  
00:23:20,390 --> 00:23:17,970  
one last time um anyway so I wish I wish

556  
00:23:23,330 --> 00:23:20,400  
this had them this microphone cadet

557  
00:23:26,220 --> 00:23:23,340  
could pick up smell that smells behind

558  
00:23:29,710 --> 00:23:26,230  
you sorry

559  
00:23:31,120 --> 00:23:29,720  
so then when I started to talk a little

560  
00:23:32,770 --> 00:23:31,130  
bit about the science behind the

561  
00:23:34,390 --> 00:23:32,780  
glutathione patch he then asked me if

562  
00:23:35,800 --> 00:23:34,400  
I'd like to participate in a study and

563  
00:23:37,990 --> 00:23:35,810

perhaps mr. Schmidt would like to help

564

00:23:39,750 --> 00:23:38,000

me and we could do a test and see if

565

00:23:45,130 --> 00:23:39,760

they elevate your blood glue the file

566

00:23:47,170 --> 00:23:45,140

sent I politely informed him that you

567

00:23:49,360 --> 00:23:47,180

can't just whip up a clinical study in a

568

00:23:51,520 --> 00:23:49,370

lab in an afternoon and secondly that

569

00:23:53,050 --> 00:23:51,530

mr. Schmidt apparently under 17 million

570

00:23:55,030 --> 00:23:53,060

dollars in his first year of selling

571

00:23:59,850 --> 00:23:55,040

these magic patches so he could probably

572

00:24:02,830 --> 00:23:59,860

afford to do his own clinical trial hmm

573

00:24:05,350 --> 00:24:02,840

yeah and he didn't like that and he then

574

00:24:07,690 --> 00:24:05,360

started to go with a big pharma

575

00:24:09,520 --> 00:24:07,700

conspiracy angling and say well you're

576  
00:24:11,920 --> 00:24:09,530  
saying you want peer-reviewed science or

577  
00:24:13,210 --> 00:24:11,930  
you're just are you too good for this

578  
00:24:14,800 --> 00:24:13,220  
you know you don't call him one of your

579  
00:24:17,110 --> 00:24:14,810  
peers just because he's not a doctrine

580  
00:24:18,730 --> 00:24:17,120  
and what peer-reviewed stuff do you read

581  
00:24:20,460 --> 00:24:18,740  
that's not big farmer and it must be

582  
00:24:22,660 --> 00:24:20,470  
rough you know this whole stuff yeah

583  
00:24:26,260 --> 00:24:22,670  
anyway and then just just integrated

584  
00:24:28,600 --> 00:24:26,270  
into him basically um he copied and

585  
00:24:31,600 --> 00:24:28,610  
pasted just about all of my blog and

586  
00:24:34,210 --> 00:24:31,610  
then addressed every point himself

587  
00:24:35,320 --> 00:24:34,220  
saying well you said this in fact one of

588  
00:24:37,900 --> 00:24:35,330

the things I mean one of the logical

589

00:24:40,390 --> 00:24:37,910

fallacies he's used here is I said that

590

00:24:41,890 --> 00:24:40,400

um it's devious and deceitful of life

591

00:24:43,780 --> 00:24:41,900

way to say that these things can cure

592

00:24:46,030 --> 00:24:43,790

autism and he says will because I said

593

00:24:48,070 --> 00:24:46,040

there's no known cure and he said well

594

00:24:49,900 --> 00:24:48,080

no cure that you know of but it's

595

00:24:51,550 --> 00:24:49,910

science social they know everything so

596

00:24:52,750 --> 00:24:51,560

he's saying therefore the science

597

00:24:55,560 --> 00:24:52,760

doesn't know them then therefore

598

00:24:58,299 --> 00:24:55,570

lifewave cure yeah autism you know

599

00:24:59,950 --> 00:24:58,309

so at this point I got a little bit fed

600

00:25:02,169 --> 00:24:59,960

up and fortunately I had some good

601  
00:25:07,329 --> 00:25:02,179  
friends in the blogosphere Richard mmm

602  
00:25:09,219 --> 00:25:07,339  
you do and they jumped in to help me so

603  
00:25:12,099 --> 00:25:09,229  
big shoutouts to Sean the blogger not

604  
00:25:13,570 --> 00:25:12,109  
who's a good he's a great guy he's

605  
00:25:15,369 --> 00:25:13,580  
always commenting on my blogs and a big

606  
00:25:17,379 --> 00:25:15,379  
shout-out to Joel birch thanks Joel for

607  
00:25:21,759 --> 00:25:17,389  
helping me out and you as well yep you

608  
00:25:23,979 --> 00:25:21,769  
jumped on your booty so in the end most

609  
00:25:25,539 --> 00:25:23,989  
of my friends got on and basically told

610  
00:25:27,789 --> 00:25:25,549  
this guy if you wanted to sell us know

611  
00:25:29,769 --> 00:25:27,799  
if he were trying to spout your snake

612  
00:25:31,450 --> 00:25:29,779  
oil business here then forget it because

613  
00:25:33,759 --> 00:25:31,460

it's the place of science and reason and

614

00:25:36,070 --> 00:25:33,769

you need facts and evidence we don't

615

00:25:39,430 --> 00:25:36,080

accept you saying that you know I used

616

00:25:42,609 --> 00:25:39,440

it worked yes yes oh and I also wanted

617

00:25:46,149 --> 00:25:42,619

to particularly point out one line which

618

00:25:49,599 --> 00:25:46,159

was left by um who was this Oh by Matt

619

00:25:52,180 --> 00:25:49,609

Matt is from I like patello blogspot I'm

620

00:25:53,289 --> 00:25:52,190

Matt he's a Melbourne and he said that

621

00:25:55,180 --> 00:25:53,299

he was amazed by the number of

622

00:25:57,249 --> 00:25:55,190

paragraphs that the true believers will

623

00:25:59,979 --> 00:25:57,259

happily spout all the while avoiding the

624

00:26:02,289 --> 00:25:59,989

simple expedient of supplying any actual

625

00:26:04,599 --> 00:26:02,299

evidence and this I think is spot-on

626

00:26:08,259 --> 00:26:04,609

Matt a link to a peer-reviewed study

627

00:26:13,350 --> 00:26:08,269

takes up but a single line people thank

628

00:26:19,740 --> 00:26:16,830

hi I'm Alice at eight host of the new by

629

00:26:21,660 --> 00:26:19,750

weekly podcast the pseudo-scientists the

630

00:26:24,210 --> 00:26:21,670

official podcast of the young Australian

631

00:26:26,880 --> 00:26:24,220

skeptics John Eliot birch daily breeders

632

00:26:29,130 --> 00:26:26,890

Jason ball Jack Scanlon hey rush and

633

00:26:31,470 --> 00:26:29,140

myself to hear what our generation have

634

00:26:33,900 --> 00:26:31,480

to say about quackery science and the

635

00:26:48,100 --> 00:26:33,910

issues that concern us subscribe to our

636

00:26:53,480 --> 00:26:50,600

well thanks for listening to the skeptic

637

00:26:55,670 --> 00:26:53,490

zone show number 22 and try as I might I

638

00:26:57,530 --> 00:26:55,680

just can't get out of this fridge George

639

00:27:00,500 --> 00:26:57,540

I don't know what I'm going to do

640

00:27:03,230 --> 00:27:00,510

nevermind I'm sure your socks will keep

641

00:27:06,470 --> 00:27:03,240

me warm join us next week for a skeptic

642

00:27:08,720 --> 00:27:06,480

zone number 23 with dr. Rachel reports

643

00:27:10,760 --> 00:27:08,730

the roundup with my koala hand grain of

644

00:27:13,130 --> 00:27:10,770

salt with her answer give and you have a

645

00:27:16,010 --> 00:27:13,140

popular think tank where we get to drink

646

00:27:20,740 --> 00:27:16,020

lots of cheap champagne until next week

647

00:27:28,190 --> 00:27:23,150

you've been listening to the skeptic

648

00:27:31,220 --> 00:27:28,200

zone visit our website at WWF digs on TV

649

00:27:33,540 --> 00:27:31,230

for comments contacts and extra video

650

00:27:36,499 --> 00:27:33,550

reports

651

00:27:45,080 --> 00:27:36,509

us kids