

SCREENHI NOTES: This is an example TV Script and the story including all references and names are used solely for illustrative purposes and are not real.



**THE SCIENCE OF FOOD
PROGRAMME 3 – HOW TO MAKE INSTANT WHEAT
FINAL PROGRAMME & VOICEOVER SCRIPT**

12th September 2012

Presenter – John Smith

RT=29'10"

<p>PRE TITLES sequence – intro and what’s coming up. <i>Music details of background track:</i> Track Album Artist Publisher Label</p> <p>Location: Opening shot in large field of wheat</p>	<p>PTC John Dried spaghetti and wheaty breakfast bricks– two of the most popular supermarket foods.</p> <p>They’re both made from the same single ingredient. To find out how we’re going to make our own – from scratch.</p>
<p>10.00.17</p>	<p>VO John We think we know these foods, but how much do we really know about them?</p>
<p>In the centre of town, on the streets</p>	<p>VOX POPS</p> <p>John How would you think you’d go about making one of those?</p> <p>Vox Well it looks a bit like very skinny spaghetti.</p> <p>Vox It’s obvious something sticks it together but I’m, not sure what that is.</p> <p>John Snap it!</p>

	<p>John How do you think they make it so straight?</p> <p>Vox Let it dangle.</p> <p>Vox I just eat spaghetti I don't know.</p> <p>Laugh.</p>
Location: Looking down the high street, busy shoppers, food shops in b/g	<p>PTC John I love finding out what happens to the stuff that we eat.</p>
10.00.54	<p>VO John But finding out what factories do to our food isn't easy.</p> <p>So to copy the big boys I've set up my own factory here in this lab.</p>
Standing in the middle of lab surrounded by equipment. All props needed.	<p>PTC John To help me discover what the masters of mass production do I'm going to need some factory workers.</p>
10.01.09	<p>VO John Clocking on for Today's shift are TV chef Nick Narren and keen celebrity chef Jennifer Sandas.</p> <p>But whose version of Today's supermarket food will go in the basket and whose will go in the bin?</p>
	<p>John Our shift at my homemade lab is about to begin.</p>
	OPENING TITLES SEQUENCE 15"
<p>CHAT AT THE WALL in Lab sequence where we meet guests and John intro's what they are making.</p> <p><i>Music details of background track:</i> <i>Track</i> <i>Album</i> <i>Artist</i> <i>Publisher</i></p>	<p>John Nick, Jennifer absolutely fantastic to have you here at the Lab.</p> <p>Would you like to look at what we're going to be making?</p> <p>Nick Yes please.</p> <p>John I think we better had, hadn't we?</p>

<p><i>Label</i></p>	<p>Nick I'm really nervous.</p> <p>Jennifer I am!</p> <p>John You're going to be making wheaty breakfast bricks, that's what I like to call them.</p> <p>Are these things that you would have eaten in the past?</p> <p>Jennifer I've eaten one of them in the past.</p> <p>Nick Could you fill them with chocolate like a Pain au Chocolat?</p> <p>Jennifer That would be lovely.</p> <p>John Ah now it's coming out. No you can't Nick.</p> <p>Jennifer How are we going to make one of these?</p> <p>John Once you achieved one of these you know what you can do whatever you like with it. But how hard can it be. They're just chunks of wheat aren't they?</p> <p>Nick More like noodles.</p> <p>Jennifer Yeah easy</p> <p>John Jennifer and Nick are you ready for your first shift here in the Lab? Follow me.</p> <p>Nick Crikey.</p>
	<p>PTC John There's only one ingredient – but making these breakfast bricks is much harder than it seems - even for these two.</p>
<p>Shredded Wheat Part 1 –</p>	<p>John Shall we have a little look? What can you</p>

<p>sequence where guests have a go at making food.</p>	<p>see inside?</p> <p>Nick Noodles.</p> <p>John It is noodley isn't it yeah?</p> <p>Nick Noodles.</p> <p>John And what is the texture?</p> <p>Jennifer Well it's just dry and crispy.</p> <p>John Ok, what else?</p> <p>Nick They're bland as anything.</p> <p>They look like a loofah!</p> <p>Jennifer They taste like a loofah.</p> <p>John Well your challenge is to make two rival wheaty breakfast bricks and then when you've made them we're going to offer them to some Taste Testers and they will decide whose is most like the one that you buy from the supermarket?</p> <p>Ok?</p> <p>Nick Ok.</p> <p>John It all starts here, with your ingredients. Now this one's easy because there's only one, and it's already been pre-cooked.</p> <p>Grab your ingredients please. Get to work!</p>
<p>10.03.25</p>	<p>VO They're not completely alone. My factory foremen Ben and Ted are here to help.</p>
<p><i>Music details of background track:</i> <i>Track</i> <i>Album</i> <i>Artist</i></p>	<p>Jennifer We need a machine that's going to turn this grain into shreds.</p>

<i>Publisher Label</i>	Ben I have a cunning plan. Jennifer Good.
10.03.37	VO John There's only one ingredient wheat – and I've made this challenge even easier by boiling the wheat in water first to soften it. So all they've got to do is flatten the wheat into sheets and cut it into thin shreds. Easy for two chefs of their calibre, surely?
	Nick How many are we going to make? Ted Hopefully at least one.
	Ben What we need to do is.....ahhhh Jennifer Right Ben Give this mangle a makeover. Jennifer Cool.
10.04.08	VO John Working out how to make such a simple food may look deceptively easy.... In fact John and Ted look like they've cracked the rolling bit from the off...
	Ted See how it's making a film of dough already? Nick Oh my goodness. Look at that. That's cool.
Record Wild – not on tape	VO John Ben's hoping his contraption will flatten and shred the wheat at the same time.
<i>Music details of background track: Track Album Artist</i>	Ben This is what's going to make our shreds. This is what's going to make our shreds.

<p><i>Publisher</i> <i>Label</i></p>	<p>We've got two new rollers - what I have carefully made.</p> <p>Jennifer You're very clever.</p> <p>Ben That one's the smooth roller. That one though has got lots of little grooves cut in it, so when they roll together this will squish the wheat and we'll end up with our shreds in the grooves.</p>
<p>10.04.44</p>	<p>VO John Breakfast cereal was one of the first foods to be mass produced. Its inventors had to work out not only how to build the machines, but how to prepare the ingredients.</p>
<p>10.04.56</p>	<p>VO John John and Jennifer only have one ingredient – wheat. But Breakfast cereal pioneers realised they had to do something to it before they could make it into shapes.</p> <p>If I crush an uncooked grain of wheat and put it under the microscope you can see what they discovered they had to do.</p>
<p>In lab area at the Wall set.</p>	<p>PTC John So this white stuff up here is starch. That's all ground up to make flour.</p> <p>But this sort of powdery stuff here is no good if you're trying to make breakfast cereal. So what happens is they boil it for an hour first.</p>
<p>10.05.27</p>	<p>VO John When the white starch powder is boiled in water something amazing happens. It turns to jelly.</p>
<p><i>Music details of background track:</i> <i>Track</i> <i>Album</i> <i>Artist</i> <i>Publisher</i> <i>Label</i></p>	<p>John Look what happens when I squeeze it.</p> <p>All of those powdery starch granules have bound together into one big blob.</p> <p>And then they leave this for a while to harden just a little bit and you can bind it together into a big ball of putty like this.</p>
<p>10.05.51</p>	<p>VO John The softened starch is the secret to</p>

	making shapes and it's what makes this breakfast cereal possible.
<i>Music details of background track:</i> <i>Track</i> <i>Album</i> <i>Artist</i> <i>Publisher</i> <i>Label</i>	<p>John How we going guys?</p> <p>Nick Very well.</p> <p>John This looks like some sort of tennis training device.</p> <p>Nick No, that's Dennis.</p> <p>John Dennis?</p> <p>Nick Dennis Hopper.</p> <p>John Hey!</p> <p>Nick He's the hopper. So we're feeding the wheat into the hopper.</p> <p>John Yep.</p> <p>Nick And then it's going through a set of rollers and then it's being rolled off and being scraped off in sheets.</p> <p>Then what we'll do is we'll just try and get long sheets of it, roll it all together and then we'll cut it out.</p>
	<p>John Let's start the production line.</p> <p>Ted So you ready to catch Nick?</p> <p>Nick I am yeah. Ah, there we go,</p> <p>John So you're going to knit them together?</p> <p>Nick Yeah. Knit them all together first. And then</p>

	<p>we'll be able to dry them a bit before we shred them.</p> <p>John That is not bad. As long as you end up with a wheaty breakfast brick I'll be a happy man.</p>
<p>10.06.38</p>	<p>VO John Nick's pinning his hopes on a two stage process, flatten, then cut into shreds.</p> <p>Jennifer and Ben's mangle mash up combines both stages. This laundry device was much more common back in the day these biscuits were invented.</p>
	<p>John You seem to have a wheat torturing device here?</p> <p>Jennifer We've got a wheat mangle.</p> <p>John A wheat mangle. Ok. Can you explain to me how it's going to work?</p> <p>Jennifer Do you know what, it's going to work brilliantly?</p> <p>This is going to be squished between these two rollers...</p> <p>John Yes</p> <p>Jennifer And this is going to shred... the wheat...</p>
	<p>John Well, please, start your production line.</p> <p>Hey, guys, are you sure this is going to work?</p> <p>Ben Yes it's going to work. We'll get there.</p> <p>Jennifer Do you know, Ben knows exactly what he's doing? He's built this brilliant machine.</p> <p>John I think some adjustments guys?</p>

	<p>Jennifer Yes.</p> <p>Ben Yes a few adjustments and we'll be...</p> <p>Jennifer ...oil our rollers.</p> <p>John Shall I come back later?</p> <p>Jennifer Yes. Come back.</p> <p>John That's probably a good idea.</p>
10.07.28	<p>VO John Oh dear. Not such a promising start for Jennifer.</p> <p>Nick's sheets worked well but now his shredding device has hit a snag.</p>
	<p>Nick The rollers aren't rolling. Do you know what I mean?</p> <p>Ted Yes. Well it's shred-ish.</p>
10.07.43	<p>VO John And finally Jennifer has come up with a fix for the malfunctioning mangle.</p>
	<p>Jennifer Take this away.</p> <p>Ben Throw it in the skip?</p> <p>Jennifer Get rid of that. We'll use it as a rolling pin.</p>
	<p>John What we need is a paper shredder, or linguine cutter, pasta maker.</p> <p>Ted Paper shredder I can do.</p> <p>John You got a Paper shredder?</p>

<p>10.07.59</p>	<p>VO John With their original ideas lying in shreds these cooking veterans might be heading for a fall. It's time for quality control –</p> <p>And Nick's still having problems.</p>
	<p>John Nick. It's a bit like tagliatelle?</p> <p>Nick No, that's paper shredder.</p> <p>John Paper shredder!</p> <p>Nick No seriously it's what we've had to use a paper shredder because we can't cut through the old pizza wheels. And what happens here you see is they stay together and every so often you get lovely, lovely little ones like this, which we should have.</p> <p>John Absolutely.</p> <p>Nick Which we should have. But to do that, I mean literally about 5 hours work to get those 7 strands so far. So the paper shredder it is. So they're a little bit bigger, but look they're cool!</p> <p>John That's pretty good. That's pretty good.</p> <p>Nick What do you mean pretty good?</p> <p>John Well.</p> <p>Let's have a look over here.</p> <p>This reminds me, well it reminds me of something my cat did the other day, but also it reminds me a little bit of – you know that wallpaper that was made with woodchip. It's largely like that.</p> <p>Jennifer Can I tell you something?</p> <p>John Yep.</p>

	<p>Jennifer The good thing about this is that I think it might actually look more like a shredded brick thing than that. And so aesthetically this might just do it.</p> <p>John Currently they look more like sheets than wheaty bricks.</p> <p>So what you need to do is find a way to chop them off nice and neatly at the sides, and then plump them up into nice little pillows like this. Ok?</p> <p>Back to your stations please.</p>
10.09.19	<p>VO John After 5 hours in the Lab Nick and Jennifer are only partway through - but I'm sure they won't be beaten.</p> <p>I'll leave them to work out how to layer up their wheaty sheets and transform them into breakfast bricks.</p>
	STING

<p>SPAGHETTI lab sequence where John makes his own spaghetti in the lab</p> <p>10.09.39</p>	<p>VO John I'm off to discover why another wheaty treat keeps in the kitchen cupboard for ages.</p>
	<p>VOX POPS</p> <p>John How long do you reckon pasta lasts on the shelf?</p> <p>Mum with green coat I would have thought it would have a shelf life of six months.</p> <p>John 6 months?</p> <p>Mum Yeah.</p> <p>Man A month?</p> <p>Mum</p>

	<p>A year?</p> <p>Lady Six months.</p> <p>John Six months? Grab the blue pack there. Have a little look at the back. It says how long it lasts.</p> <p>lady Ooh, years.</p> <p>Woman So it lasts from now three years.</p> <p>John That's quite a long time isn't it?</p> <p>Black T shirt lady I'm shocked by that, I really am.</p> <p>John How do you think they make it last so long?</p> <p>Lady Do they nuke it?</p>
10.10.15	<p>VO John They might not nuke it but just how do they make it keep so long – in fact come to that, how do they even make each strand so long?</p>
10.10.25	<p>VO John To straighten out this pasta puzzle I'm going to make my own.</p> <p>First I need a special kind of flour to make my dough. This flour comes from durum wheat.</p>
	<p>John I've never made dough in an industrial plaster mixer before.</p> <p>Oh my lord, she's going to blow!</p>
10.10.47	<p>VO John This type of dough is super-sticky.</p>
	<p>John Laugh.</p> <p>Interesting consistency! I'd like to see anyone make a spag bol out of that!</p>

10.10.58	VO John So how do they turn a sticky blob into super-straight dry spaghetti?
	John In the factory they use a machine called an extruder – and it’s a massive gleaming tower of stainless steel. I thought I’d cobble it together using one of these. It’s a meat mincer.
	John There we go.
10.11.19	VO John A spiral inside the mincer will force the dough out of the holes, forming long and perfectly straight strands. At least that’s the idea.
	John Oh look here we go! It’s coming through look! This is really difficult. It’s quite hard work. Okay it’s starting to drop and as it drops its getting faster and faster aghgh oh no! Oh. Hmm. It’s all going a bit wrong.
10.11.49	VO John But with less of a drop and some nifty knee work I’m in business!
	John That’ll do. Look at that – that’s brilliant!
10.12.04	VO John But dried spaghetti it isn’t. It’s not that straight either, but I’ve got a fix for that.
John now with a rail full of spaghetti	John Now I know it looks a bit crazy but this is what they do in the factory they hang the spaghetti up and they use GRAVITY to get the strands of spaghetti really, really straight and I think it’s kind of working – a few little kinks left.
10.12.22	VO John Straighter, but still not dry.
10.12.29	This shed will solve that.

10.12.33	In the factory rows of pasta curtains pass through sophisticated dryers.
	John Just like mine, sort of.
10.12.43	VO John Fitted with these fan heaters it'll be a roasting 80 degrees in here.
10.12.51	VO John I can't dry my spaghetti <i>too</i> fiercely though – because it'll <u>crack</u>.
10.12.56	VO John Under the microscope you can see the problem. The outside edges dry faster than the inside – as the outer layer shrinks it's not long before.... FX Crack! Alarm. There are cracks all along the outside of the spaghetti.
10.13.11	VO The challenge for the big boys is how to dry the pasta to the <u>brink</u> of cracking.
	John And then – they put water back in! I'm using a wallpaper steamer.
10.13.24	VO John By making the air moist again from time to time the pasta will dry faster – with no cracking.
10.13.37	VO John Next morning. Will I be greeted by dried straight spaghetti or a pasta disaster?
	John Ha ha! Oh blimey look – it's like a shed load of monster hair. It looks quite dry. It's pretty straight – little bit of a bend on it but not bad that's a pretty good one!
10.13.56	VO John Under the microscope my spaghetti is as

	<p>straight as the shop bought stuff – and no cracking!</p> <p>A few bits of flour to stop mine sticking but otherwise its perfect.</p>
	John Woo!
10.14.09	<p>VO John It's a bit brittle, but that just proves it's dry. It's the dryness that stops bugs and bacteria growing.</p> <p>And that's why spaghetti keeps safely in your cupboard for years.</p>
	<p>John Time to put my spaghetti in.</p> <p>Of course there is a classic student version of testing if you[r pasta is cooked – chuck it at the wall and if it sticks it's supposed to be ready.</p> <p>Ha ha! it sticks!</p>
<p><i>Music details of background track:</i> Track Album Artist Publisher Label</p>	<p>John Here goes, this pasta has come a heck of a long way.</p> <p>Well it looks like the sauce is clinging onto it quite nicely – that's a good start.</p> <p>Hmm – mm - mm!</p> <p>It's nearly there! It's nearly...It falls apart a little bit too much in your mouth. It's kind of a bit more like the stuff you get out of a can.</p>
10.15.16	<p>VO John My very own dried spaghetti. Made from 100% wheat.</p>
10.15.21	<p>VO John But only our taste testers can decide whether my spaghetti's as good as shop bought stuff.</p>
SPAGHETTI tasting sequence with invited audience round picnic tables	<p>John You're not actually judging the sauce, you're judging the spaghetti.</p>
	<p>Taste Tester I think this more like the tinned spaghetti you get.</p>

	Taste Tester I don't think it holds the flavour of the sauce as well
	John Ahhh
	Taste Tester It is more wheaty
	John What about the texture has it got the same bounce?
	Taste Tester Bit gritty
	John Bit gritty?
	Taste Tester It's got more flavour
	John You reckon this is like the stuff you buy in the supermarket?
	Taste Tester Better
	John Better yes.

SHREDDED WHEAT PART 2	VO John
10.15.59	Back in the Lab I've challenged Nick and Jennifer to make me some wheaty breakfast bricks made from just one ingredient - 100% wheat.
	If anyone can do it, it should be these guys!
	Now they've got to come up with a method to transform their wheaty sheets into something that looks much more like the SHREDDED stuff we buy from the shops.
<i>Music details of background track:</i>	Ted

<p>Track Album Artist Publisher Label</p>	<p>Alright are we ready to pick this up and get it crimped?</p> <p>John Ok guys. So wow, what have you got here?</p> <p>Nick What we've got now is we've got all our shredded wheat laid out in layers. And now what will happen is we'll bring this down and then with all the pressure we can muster, push it down, but not cut it. But crimp it.</p> <p>John Squeeze it crimp it.</p> <p>Nick Squeeze all the things together. Well that's the theory.</p> <p>John It's a thing of beauty.</p> <p>Nick It is a thing of beauty.</p>
	<p>John Ok. Before you get too far guys, before you get too far, can you explain to me, two things?</p> <p>How are you going to layer your wheat into nice bricks and then how are you going to chop them up into nice little pillows like that?</p> <p>Jennifer What we've decided to do... is fold them.</p> <p>John Fold them?</p> <p>Jennifer Over...So we're going to roll them really, we're folding them. So they won't have like 20 layers, but they will have a lot of layers.</p> <p>John Ok.</p> <p>Jennifer About 7.</p> <p>Ben Maybe.</p> <p>Jennifer</p>

	<p>We'll see...</p> <p>Ben But they're quality layers.</p> <p>Jennifer Yes.</p> <p>John It's like a Swiss roll made out of wheat?</p> <p>Ben Yep.</p> <p>Jennifer Yes, but it will still have the grooves.</p> <p>John Mmm.</p> <p>Jennifer I think it's going to look alright. I think it's going to look pretty near to him.</p> <p>John Ok that's the theory. Later on we'll test them and decide which one of these bricks is going to go in the basket and which one is going to go in the bin.</p>
<p>10.17.35</p>	<p>VO John Jennifer is hoping rolling up her flattened wheat will prove the winning formula.</p> <p><i>(beat)</i></p> <p>Or perhaps not.</p> <p>Nick's pinning all his hopes on his crimping contraption</p>
	<p>John Ooh they're looking good.</p>
<p>10.17.51</p>	<p>VO John 120 years ago it took the inventor of Shredded Wheat – Henry Perky three years to perfect his machine.</p> <p>The idea of mass producing food in factories was brand new, and breakfast cereals didn't even exist.</p>

	<p>PTC John Here is and he invented it together with his friend William back in 1892.</p> <p>Now his brainchild did make them rich, but it almost bankrupted them first. Because they didn't try to sell the bricks themselves, they tried to sell the machinery to make them.</p>
10.18.22	<p>VO John It was only when Perky started selling the cereal he got seriously rich.</p>
	<p>John Now a lot of people think that cornflakes were the first ready to eat cereal. But it's not true. It was these bricks.</p>
10.18.35	<p>VO John In fact Perky looks so pleased with his breakfast biscuit innovation he even seems to be wearing one!</p>
10.18.42	<p>VO John Nick and Jennifer have given it their best shot to copy Perky's brick.</p>
	<p>Nick Oh Baby!</p> <p>Ted Now that's something to get excited about.</p> <p>Nick Look at that</p> <p>Ted That is fantastic!</p> <p>Nick Oh, yes!</p>
10.18.53	<p>VO But these bricks contain too much moisture for a breakfast cereal - which must keep for months.</p>
	<p>Ted Oh they're a bit crumbly.</p>
10.19.01	<p>VO So the next stage is vital.</p>
	<p>PTC John</p>

	Now they need to bake them, and that requires an oven. And when they're baked the bricks will puff up and dry out. Hopefully.
10.19.14	VO John If the starch isn't baked right through they'll end up with soggy bricks which will rot in the box. So as they prepare for the bake-off – whose biscuits will be baked best Nick's or Jennifer's?

	STING
<i>Music details of background track:</i> <i>Track</i> <i>Album</i> <i>Artist</i> <i>Publisher</i> <i>Label</i>	PTC John Wheat is an amazing ingredient – you can easily eat it for breakfast lunch and dinner. And by far the most popular way to eat it at lunchtime is you guessed it the sandwich. Without wheat there'd be a lot less bread and millions fewer sarnies.

Sandwiches sequence in the factory	
10.19.56	VO John Well, we all have our favourite sandwich and inside this box is mine, the ploughman's.
Sitting on scaffolding in a building site	PTC John The trouble is however well I wrap it, I know that within a couple of hours, that sandwich is bound to turn soggy.
10.20.10	VO And if not soggy then certainly stale. So where am I going wrong?
<i>Music details of background track:</i> <i>Track</i> <i>Album</i> <i>Artist</i> <i>Publisher</i> <i>Label</i>	John Tell me what you think of that little baby there. Worker It's quite wet. Worker Your ingredients are falling out, your breads

	going wet.
	<p>John You wouldn't make a sandwich like that?</p> <p>Worker Not quite. No.</p> <p>I wouldn't even feed that to the birds (laughter)</p>
10.20.26	<p>VO John These workers are all sandwich savvy. They make thousands of them every day.</p> <p>They all work here - one of the largest sandwich factories in the world.</p>
10.20.40	<p>VO John At Greenhams in Buckinghamshire over three million sarnies roll off this production line every week.</p>
10.20.47	<p>VO John Emma Corran is one of their sandwich experts.</p> <p>I'm all dressed up to find out how they stop these sandwiches from going soggy and stale.</p>
	<p>John You can't relax can you?</p> <p>Look, we're actually running out, we'd better get a move on.</p>
10.21.17	<p>VO John It's cold in the here, like working inside a fridge. But the bread we're loading up is lovely and soft.</p>
	<p>John When I make a sandwich at home, if I put it in the fridge, it would come out really hard, and my kids wouldn't eat it.</p> <p>Emma Yep that's right.</p>
10.21.33	<p>VO John Apparently normal bread goes stale in the fridge because the cold causes the starch</p>

	<p>inside it to grow into crystals.</p> <p>It's these crystals which make the bread go hard. But that doesn't happen here.</p>
	<p>Emma We add special natural ingredients that try to help the starch not crystallise - which stops it from going stale.</p>
10.21.55	<p>VO John These special natural ingredients are called bread improvers. They don't stop the starch crystals growing, but they slow them right down. That means the bread stays soft in the fridge.</p>
	<p>John Genius! Can I have some to take home?</p>
10.22.13	<p>VO John We've stopped our bread from going stale, but now we need to prevent it from going soggy.</p>
10.22.19	<p>VO John We love tomatoes in our sarnies but bread hates moisture. So why don't tomatoes turn supermarket sarnies to mush?</p>
	<p>Emma We buy a special variety of tomato, which is slightly lower in moisture content and has slightly thicker walls.</p> <p>John So you're actually after tougher tomatoes so that they'll hold up better?</p> <p>Emma That loses less water? Yes.</p>
	<p>Emma And it's also important the way we slice.</p> <p>So we put the top of the tomato to the top. We slice through that way to keep the seeds in the middle to stop them falling out.</p> <p>And if the seeds stay in, then that stops the bread going soggy.</p>

10.22.52	<p>VO John But that's not all they do. They've got another trick to stop the sandwiches going soggy.</p>
	<p>Emma We use mayonnaise or butter as a barrier, because they're high in fat.</p> <p>John As a barrier?</p> <p>Emma Barrier.</p> <p>John Barrier to what?</p> <p>Emma So if we're putting tomatoes on, or leaf, then it stops the water from those going into the bread and making it soggy.</p>
10.23.11	<p>VO John Making sandwiches on an assembly line requires lots of people to layer up the fillings.</p> <p>How hard can it be?</p>
	<p>John Can I have a try?</p> <p>Emma Yeah, do you want a go?</p> <p>John Yeah!</p> <p>Emma Ok.</p>
10.23.21	<p>VO John They've let me loose making my favourite sandwich a plough-mans!</p>
<p><i>Music details of background track:</i> Track Album Artist</p>	<p>John Ooh here we go.</p> <p>Emma No no!</p>

<i>Publisher Label</i>	<p>John I'm sorry, so I got a bit over-enthusiastic.</p> <p>Agh! What do I do wrong?</p> <p>They're getting away from me that's the trouble!</p> <p>Agh! Why can't I do it?</p>
10.23.44	VO John What I need is one of these babies.
10.23.47	VO John This robot can churn out a whopping 3600 sandwiches an hour, an average of one a second!
	<p>John So can this fella make the cheese and pickle plough-man sandwiches as well?</p> <p>Emma No, this line just makes the really simple sandwiches that are just a mix. So cheese, or egg and cress mix, it can't put on tomatoes and cucumbers.</p> <p>John So it's not quite as clever as humans yet?</p> <p>Emma Not quite as clever as that.</p>
10.24.12	VO John Who'd have thought there'd be so much going on inside a supermarket sandwich?
	They've tinkered with the bread, and selected special fillings – just to make sure by the time we eat them they're as fresh as when they were made!
	STING

Shredded Wheat – Part Three	
10.24.33	VO John Back in the Lab Nick and Jennifer are approaching the final bake-off. These breakfast biscuits must be baked until

	brown - but not burned!
	John Remember this is a factory, not home cooking we need speed, scale and standards.
10.24.48	VO John Jennifer and Ben are hoping to achieve precision with their wheaty brick barbeque.
	Jennifer How long do you reckon? Ben I don't know. Jennifer A couple of minutes? Ben Yeah Jennifer Before it starts charring!
10.24.59	VO John Nick and Ted are using a metal locker from a factory. It's a blow torch fired locker-shocker!
	Nick Hey! Ted Toasty stuff going on Nick Yeahhy. The back as well. I think we need to turn it round. Ted Turn them round?
10.25.14	VO John This is the critical stage of the process. They must decide how long to leave their biscuits inside the oven so the starch is cooked right through.
	Jennifer It's going to take a little bit longer than I

	<p>thought because they're really squidgy, they're really soft in the middle.</p> <p>Ben Mmm.</p>
	<p>Nick I think now drop it down to 140. So what's the temperature now?</p> <p>Ted Hard to say.</p>
10.25.33	<p>VO John The soggy starch in the softened wheat must be completely dried out in the oven. If it isn't the biscuits will rot in the box.</p> <p>Has Jennifer been too timid?</p> <p>Has Nick over-cooked it? It's the moment of truth.</p>
	<p>PTC John Ok. Nick, Jennifer. Please stop your production lines. Package up your product and we'll taste them.</p>
	<p>PTC John That's the end of production.</p> <p>Bring me your wheaty breakfast bricks.</p>
	<p>John Ok let's have a good look.</p> <p>Ok. What we're aiming for is one of these.</p> <p>I'd say this is slightly more Swiss roll like. Nick's slightly more hedgehog like.</p> <p>So you've got a bit of browning. Bit of dark brown, light brown.</p> <p>That's actually burned isn't it?</p> <p>Jennifer No it's not. It's just a little bit of extra colour.</p> <p>Nick Let's remember right we had all day to make those. These guys have had 120 odd years to work their process out.</p> <p>John</p>

	<p>Laughs.</p> <p>Right, so I'll dig in. Jennifer's first.</p> <p>Ok. Tough. I mean it doesn't have the crispness and the lightness of the real thing.</p> <p>It's very soft inside.</p> <p>Jennifer Ok.</p> <p>John Inside the starch is still wet. OK.</p> <p>Ok. Shall we try the hedgehog?</p> <p>Oh look it's falling apart very nicely.</p> <p>Mmm. Don't kick me! Did you see that?</p> <p>What you've done here Nick is you've managed to get all those starch granules to dry out again. And that is quite an achievement I have to say.</p> <p>So the taste - fantastic. There's nothing there at all!</p> <p>Nick Laughter.</p> <p>John A slight wheatiness - but in this situation that's a positive thing.</p> <p>I'm very impressed.</p> <p>Ok, well.</p> <p>We've got a whole group of very hungry Taste Testers and it's them who will decide which one is closest to the ones you buy in the supermarket.</p> <p>John OK Nick and Jennifer grab your trays, because we're going to go outside and meet the taste testers.</p> <p>Jennifer Oh!</p> <p>Nick That's not yours!</p>
--	--

--	--

SHREDDED WHEAT TASTE TEST sequence	Nick Tada! What do you reckon?
	Taste Tester Lot of crunch. It's the closest you could probably get.
	Nick You're a star.
	VOX POPS Nice and light.
	VOX POPS I think I must have got the only soggy bit.
	Nick Oh well didn't see that.
	VOX POPS I thinki it smelt right. Yeah.
	VOX POPS And I liked the little burnt bits too.
	VOX POPS I rather liked the crunchiness of the outside.
	VOX POPS It's very crunchy.
	VOX POPS It is quite a nice taste.
	Nick Good I'm pleased.
	SYNC JOHN Jennifer and Nick come here please.
	John Okay so if you thought that Jennifer's breakfast brick was most like the one you buy in the shops please raise your hands. Okay if you thought that Nick's was most like the one you buy in the shops please raise your hands

	<p>4,5,6</p> <p>Ooh! We have a winner.</p> <p>Jennifer I'm terribly sorry but your breakfast brick is going in the bin, Nick your wheaty breakfast brick is going in the basket but please give them a round of applause.</p> <p>Well done, well done.</p>
In the middle of the audience sitting at the picnic tables	<p>PTC John</p> <p>Well Nick cracked it because his bricks were light and airy, and the starch was cooked all the way through. His breakfast cereal will last in the cupboard for ages.</p> <p>But Nick and Jennifer have proved that making a simple breakfast cereal, even made from just one ingredient can be a massive challenge.</p>
	END TITLES