## Part 1.

**NARRATOR**: Warmer or colder than average ocean temperatures in one part of the world can influence weather around the globe - boggles the mind, right?

Here’s how it works.

During normal conditions, trade winds, which blow from east to west, push warm surface waters towards Asia, piling it up in the western Pacific.

In some years though, the trade winds weaken. The warm surface water moves eastward and reduces upwelling of cold water off the coast of South America. Climatologists call this El Niño. Its climate impacts show up mostly in the wintertime over North America.

The warmer ocean fuels an intensification and southward shift of the jet stream. This brings flooding to the Southern United States and warmer, drier conditions over parts of the Pacific northwest, northern U.S. and Canada.

But eventually those trade winds pick up again and sometimes become even stronger than normal. When that happens, they blow the warm water back into the western Pacific and restart the upwelling of cool water towards the surface in the eastern Pacific. These strong trade winds are a signature of what is called La Niña, unusually cold conditions in the tropical Pacific that displace the Jet Stream northward. La Niña can lead to drought in the southern US and cooler temperatures, heavy rains and flooding in the Pacific Northwest.

El Niño and La Niña together are part of a cycle that influences extreme weather and can impact food production, water supply and even human health not just in the US, but in many parts of the globe.

## Part 2.

**Speaker 1.**

I decided to study history - I want to be a lecturer one day. When you want to do a degree, say in pharmacy, there’s little difference in content between universities, I think. But history at one university can be very different to history at another, so I had to do some research about the three colleges where I might’ve wanted to study. I’d heard good things about Dundee university, and they all proved correct. I’m from Ireland and I got to study Irish history, plus a focus on the European Union. I’ve been so busy, I’ve had no time to enjoy student parties, but that’ll come, I’m sure.

**Speaker 2.**

I’d always thought I wanted to study medicine, but the college I wanted to go to only had twenty places and I didn’t get a place. That was disappointing and I even thought I might take a year out, but then I had second thoughts about my choice of subject and went for nursing. I’m now at Sheffield Hallam college, which is linked to a variety of hospitals and isn’t too far away from home - though far enough for me to be independent. People who’d gone there told me it was really good and the tutors had time for you. The course is brilliant and there’s a friendly campus atmosphere.

**Speaker 3.**

I’m studying for a degree in French at Sussex University. It’s a part-time course, very few students would want to study part-time for a first degree, of course. Part-time study is mainly for people like me, who have other responsibilities - I work mornings in a school, and I’m keen to keep it that way. I’m learning a lot, though it’s been different to what I expected - I thought it was going to be easier! Unlike me, full-time students live in accommodation on the campus, and I hear wonderful stories about the great parties they organise. They say I don’t know what I’m missing, but I don’t mind, really.

**Speaker 4.**

Psychology was always my choice of degree subject. I studied it at school and soon realised it was what I wanted to do at university. My parents tried hard, but failed, to make me change my mind - they said I was making the wrong choice and that I wouldn’t be able to make a living. But I love it. I’m interested in social psychology, how people interact - it’s fascinating, and I know I’ll be able to find work easily. I’m at Coventry University, living in student accommodation, which is very convenient. Coventry is really student-oriented and the teachers are very friendly. And my brother lives only twenty minutes away, so I see him often.

**Speaker 5.**

I’m studying geography at Swansea University, because I love this area. I came the first day thinking, what if I find out the course isn’t what I wanted? But it’s amazing, the department is really good and what really does it for me is that it’s been brilliant in other ways - pretty much every weekend there’s a chance for students to go out. There’s a group of us who knew each other from school and we’re all starting together. I’m still living at home, but I hope to be able to do some part-time work and rent a small flat with a couple of friends next year.

## Part 3.

**Interviewer**: Our guests today are the acclaimed filmmakers Tilly Woodford and Lee Davies, who for their latest work have swapped film stars for a four-legged cast! Lee, can you tell us more?

**Speaker 1**: Well, it’s basically about the relationship between people and their pets, and well, animals in general. I’ll let Tilly explain as it was originally her idea.

**Speaker 2**: Yes, growing up on a farm, my parents taught me at an early age all about the practical side of having working animals. But I had an entirely different relationship with the domestic animals we kept as pets. I didn’t really question that until I had children of my own. I was determined to raise them to be animal lovers, and that was really the starting point of the documentary. Lee and I started collecting these incredible stories of people whose lives had been transformed in some way by pets. It’s taught us a lot about why people can have such strong attachment to their pets.

**Speaker 1**: We must’ve spent at least two years doing the research. That first year was particularly hard because I was trying to juggle other work commitments too, do you remember? I felt really bad because Tilly ended up doing far more work than me! To be honest, I was somewhat sceptical at the start that enough people would want to watch a documentary about this particular topic. But I trusted Tilly. Our previous collaborations had been so rewarding. And of course, as a creator, it’s always a privilege to take on a new challenge.

**Speaker 2**: Well, you soon saw the potential once we got underway.

**Speaker 1**: Definitely! We uncovered so many touching stories.

**Speaker 2**: Yes, and I know that documentary makers have to be impartial observers. But that wasn’t easy for me as someone who cares deeply about animal welfare. What about that YouTuber we interviewed? He was basically exploiting his pets to attract more followers. He was dressing them up in stupid outfits and filming them. But off-camera, he had no interest in those poor pets. And he seemed to find it funny to feed them things they really shouldn’t be consuming. It was really hard not to intervene.

**Speaker 1**: I hasten to add that this was the exception! It was reassuring to spend time with so many responsible pet owners. Had it not been for meeting all those people, I don’t think I would’ve realised how pet-friendly we’ve become as a nation. And it was also heartening to learn about all the fantastic animal-conservation work people are doing. It’s so important.

**Speaker 2**: We’ve absolutely become a society that values our pets. This hadn’t occurred to me either until we started making this documentary. I suppose the booming pet-care sector is the logical extension of that change. Personally, my highlight during our research was meeting animal-behaviour experts deciphering what pets might be trying to tell us. Absolutely fascinating!

**Speaker 1**: At the risk of showing off, I’d say the documentary covers all these issues well. When you’re dealing with individuals’ personal experiences, it can easily become far too sentimental. Balancing it with factual content is important, especially subjects that provoke debate. Considering we had such tight financial constraints, I’m incredibly proud of what we achieved. I just wish we could have kept in all the content we originally filmed, but it just wasn’t feasible.

**Speaker 2**: Well, I’m just glad we didn’t let our personal views or prejudices influence the documentary too much. That would have been a mistake. But like you say, I’ll always wonder whether we should have kept in some of the parts we removed. I suspect all documentary makers hate the editing process!

**Interviewer**: Lee, Tilly, thanks…

## Part 4.

Every night, almost everyone on the planet enters into a state of unconsciousness and paralysis. But what is really happening inside the body when we drift off? And what’s the impact if we don’t get enough sleep? Sleep is regulated by your **circadian rhythm**, or body clock, located in the brain. The body clock responds to light cues, ramping up production of the **hormone melatonin** at night, and switching it off when it senses light. There are four stages of sleep that the body experiences and cycles throughout the night. On a good night, we cycle three these stages four or five times.

Stages one and two are light sleep. This is a **transition** from being awake to falling asleep. Part rate and breathing begin to slow. Body temperature falls, and muscles may **twitch**. Stage three is sometimes referred to as delta sleep, because of the slow delta **brainwaves** that are released during the stage. This is the first stage of deep sleep, where our **cells** produce the most growth hormone to service bones and muscles. Allowing the body to repair itself. Stage four is where we begin to dream. The body creates chemicals that render it temporarily paralyzed, so that we do not act out our dreams. In this stage, the brain is extremely active, and our eyes, although closed, dart **back and forth** as if we were awake. Humans refuse to spend one third of their lives asleep. **Modern lifestyles**, stress, and the proliferation of technology mean that people are sleeping far less today than they were a century ago. Sleeping less than seven hours per day is associated with an increased risk of developing **chronic conditions**, which could reduce life expectancy. So for a healthier, longer life, get **some shut-eye**.