

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
ПОЛТАВСЬКИЙ НАЦІОНАЛЬНИЙ ПЕДАГОГІЧНИЙ УНІВЕРСИТЕТ  
ІМЕНІ В. Г. КОРОЛЕНКА

# Граматика в англomовних новинах: практикум

Навчальний посібник із розвитку граматичних  
і комунікативних навичок

*News in the English classroom:  
mastering grammar structures,  
developing discussion skills*

*Practice book*

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
POLTAVA V.G. KOROLENKO NATIONAL PEDAGOGICAL UNIVERSITY

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mastering grammar structures,  
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Poltava

2020



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комунікативних навичок

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*У навчальному посібнику вміщено завдання, розроблені на основі реальних новин, написаних англійською мовою й опублікованих у 2019-2020 рр. Завдання присвячені вдосконаленню граматичних навичок (насамперед уживанню видо-часових форм дієслів) та розвитку комунікативних навичок.*

*Для студентів закладів вищої освіти, які вивчають англійську мову як фах.*

**УДК 811.111'36(075.8)**

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## Foreword

When learning and teaching foreign languages, many of us have probably used textbooks with dry, boring topics – or, worse, with vocabulary and sentence structures that few native speakers would choose. Of course, beginner-level and elementary-level English learners need to start with simplified language. Few people can simply open *The New York Times* or a Harry Potter novel and read page after page if they only know 1000 or 2000 words of English. However, when English-language learners become more fluent, they need practice with real-life English. They likely see confusing slang and regional dialect every time they surf the internet. Upper-intermediate-level and advanced-level English classes should help students navigate the challenging maze of native-speaker English.

For this reason, Dr. Tetyana Lunyova and I have created exercises that use real news articles from native-English-speaking authors. These exercises not only provide students with practice understanding and using advanced grammar, but also engaging with current cultural conversations in native-English-speaking cultures. The goal of these exercises is to support advanced-level students as they begin to work with all the complexities of real native-speaker English. After working with these articles, students should have an easier time reading and responding to English-language prose outside the classroom. This will, we hope, allow them to participate more fully in the international community.

*Dr. Kirsten Dyck*

This book is grounded in the idea that grammar is not a dry list of “dos” and “don’ts” but the life principles of the language as a living organism. Thus the book gives no rules or prescriptions to follow but offers a variety of news texts related to various current issues and therefore invites to close reading, careful thinking, and meaningful discussion.

Hopefully, this practise book will help students not only to master their grammar skills but also to enjoy the richness, flexibility and accuracy of the English language in real-life contexts.

*Dr. Tetyana Lunyova*

## **Introduction**

This practice book has emerged through a collaborative teaching of the English language course to Poltava V. G. Korolenko National Pedagogical University students pursuing their master's degree by Dr. Kirsten Dyck and Dr. Tetyana Lunyova during the autumn of 2019.

The book has a double aim: to support mastering English grammar and to encourage developing discussion skills.

The book contains 20 tasks and the keys to them. Each task includes a grammar part and a discussion part.

The book can be used both as a supplement to the classroom activities and a resource for independent work and self-study.



## Exercises

### Task 1

#### Why Instagram could be a major site for disinformation in the 2020 US election

Paul M. Barrett, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/commentisfree/2019/sep/12/why-instagram-could-be-a-major-site-for-disinformation-in-the-2020-election>

**Grammar task:** use the words in the brackets in the appropriate form:

With the first Democratic primaries only five months away, it's time for American voters to steel themselves for new waves of election disinformation 1. \_\_\_\_\_ (**deliver**) via social media. Instagram, the photo- and video-posting platform, 2. \_\_\_\_\_  
\_\_\_\_\_ (**play**) a larger role than many people 3. \_\_\_\_\_ (**anticipate**).

Facebook and Twitter received the lion's share of attention in connection with Russia's election interference in 2016. But Instagram 4. \_\_\_\_\_ (**be**) more important as a vehicle for disinformation than 5. \_\_\_\_\_ commonly \_\_\_\_\_ (**understand**), and it could become a crucial Russian instrument again next year.

Instagram's image-oriented service makes it an ideal venue for memes, which are photos combined with short, punchy text. Memes, in turn, are an increasingly popular vehicle for phony quotes and other disinformation. Deepfake videos are another potential danger on Instagram. 6. \_\_\_\_\_ (**make**) with readily available artificial intelligence tools, deepfakes seem real to the naked eye and 7. \_\_\_\_\_  
\_\_\_\_\_ (**can use**) 8. \_\_\_\_\_ (**present**) candidates as saying or doing things they 9. \_\_\_\_\_ never \_\_\_\_\_  
\_\_\_\_\_ (**say or do**).

There's more to worry about than just Instagram. As I explain in a new report published by the New York University Stern Center for Business and Human Rights, the Russians may not be the only foreign operatives targeting the US. Iranians 10. \_\_\_\_\_ (**pretend**) to be Americans have already jumped into the US disinformation fray. And China, which 11. \_\_\_\_\_ (**deploy**) English-language disinformation against protesters in Hong Kong, could turn to the US next.

In terms of sheer volume, domestically generated disinformation – 12. \_\_\_\_\_ (**come**) mostly from the US political right, but also from the left – 13. \_\_\_\_\_ probably \_\_\_\_\_ (**exceed**) foreign-sourced false content. One of the conspiracy theories likely to gain traction in coming months is that the major social media companies

14. \_\_\_\_\_ (conspire) with Democrats to defeat Donald Trump's bid for re-election.

Whoever 15. \_\_\_\_\_ (spread) disinformation 16. \_\_\_\_\_ (mean) to rile up the American electorate, Instagram will almost certainly come into play. Started in 2010, it was acquired by Facebook 18 months later for \$1bn. Today, Instagram has about 1 billion users, compared to nearly 2.4 billion for Facebook, 2 billion for YouTube (which is owned by Google), and 330 million for Twitter.

In 2016, the Internet Research Agency (IRA), a notorious Russian trolling operation, enjoyed more US user engagement on Instagram than it did on any other social media platform, according to a report commissioned by the Senate intelligence committee and released in December 2018. "Instagram was a significant front in the IRA's influence operation, something Facebook executives 17. \_\_\_\_\_ (appear) to 18. \_\_\_\_\_ (avoid) mentioning in Congressional testimony," the report said. "Our assessment is that Instagram is likely to be a key battleground on an ongoing basis."

The Senate report found there were 187m user engagements with IRA material on Instagram – more than twice as many as on Facebook (77m) or Twitter (73m). One meme posted on Instagram by the IRA's phony "Blacktivist" account showed a police officer half-clad in a Ku Klux Klan hood-and-sheet above the statement: "The KKK has infiltrated police departments for years."

Other observers have noted that, beyond Russian interference, domestically generated hoaxes and conspiracy theories 19. \_\_\_\_\_ (thrive) on Instagram. These include QAnon, a widely circulated rightwing conspiracy theory about a "deep state" plot to take down Trump.

"Instagram is a hotbed for disinformation dissemination," Otavio Freire, chief technology officer and president of SafeGuard Cyber, a social media security company, told me. "The visual nature of content makes it easier to stoke discord by speaking to audiences' beliefs through memes. This content is easy and inexpensive to produce but more difficult to factcheck than articles from dubious sites."

Facebook belatedly 20. \_\_\_\_\_ (try) to filter out some of the muck found on Instagram. In the past year, hundreds of Instagram accounts have been removed for displaying what Facebook calls "coordinated inauthentic behavior".

In August, Facebook announced a test program that uses image-recognition and other tools to find questionable content on Instagram, which is then sent to outside fact-checkers that work with Facebook. In addition, Instagram users now for the first time can flag dubious content as they encounter it. The platform has made it easier for users to identify suspicious accounts by disclosing such information as the accounts' location and the ads they're running.

A Facebook company spokesperson said: "We have learned many lessons from 2016 and  
**21.** \_\_\_\_\_ **(build)** strong defenses to stop people from  
**22.** \_\_\_\_\_ **(try)** to interfere in elections. We're investing heavily in staff and systems and are working constantly to try and stay one step ahead of our adversaries. We  
**23.** \_\_\_\_\_ **(share)** a number of updates in the coming months as we continue our work."

But Facebook and Instagram could do more. Content that factcheckers deem to be false is removed from certain Instagram pages but not taken down altogether. In my view, once social media platforms carefully determine that material is provably false, it ought to be eliminated so that it won't spread further. Platforms should retain a copy of the excised content in a cordoned-off archive available for research purposes to scholars, journalists and others.

Another problem is that Facebook and the other major social media companies have allowed responsibility for content decisions to be dispersed among different teams within each firm. To simplify and consolidate, each company should hire a senior official who reports to the CEO and supervises all efforts to combat disinformation.

Finally, the platforms should cooperate more than they do now to counter disinformation. Purveyors of false content, whether foreign or domestic, tend to operate across multiple platforms. To rid the coming election of as much disinformation as possible, the social media companies ought to emulate collaborative initiatives they **24.** \_\_\_\_\_  
\_\_\_\_\_ **(use)** to stanch the flow of child pornography and terrorist incitement.

Fair elections **25.** \_\_\_\_\_ **(depend)** on voters **26.** \_\_\_\_\_ **(make)** decisions **27.** \_\_\_\_\_ **(inform)** by facts, not lies and distortions. That's why the social media companies must do as much as possible to protect users of Instagram and the other popular platforms from disinformation

**Discussion task:** prepare to discuss the following questions:

1. What can people do to protect themselves from election disinformation?
2. Do you know how to spot a deepfake video?
3. Should news literacy be taught at school? Should it be taught to everybody at university?

## Task 2

### Alleged drug gang thwarted by giant seal in \$1bn Australian drug bust

Australian Associated Press, *The Guardian*, 12 Sept. 2019

<https://www.theguardian.com/australia-news/2019/sep/12/alleged-drug-gang-thwarted-by-giant-seal-in-1bn-australian-drug-bust>

**Grammar task:** use the words in the brackets in the appropriate form:

Three more men **1.** \_\_\_\_\_ **(charge)** over a massive A\$1bn [\$1 billion Australian dollar] drug haul **2.** \_\_\_\_\_ **(find)** on a tiny island off Western Australia after a yacht ran aground and **3.** \_\_\_\_\_ **(abandon)**, sparking a search for its occupants.

Police launched a raid on Burton Island off the port town of Geraldton last week, **4.** \_\_\_\_\_ **(find)** Frenchman Antoine Dicenta, 51, and British man Graham Palmer, 34, allegedly with 1.087 tonne of methylamphetamine, cocaine and ecstasy in dozens of bags that they **5.** \_\_\_\_\_ **(attempt)** to hide under seaweed.

They allegedly tried to flee but **6.** \_\_\_\_\_ **(thwart)** when a huge seal **7.** \_\_\_\_\_ **(block)** their path, police said. The pair **8.** \_\_\_\_\_ **(charge)** last week with importing a commercial quantity of a border controlled drug.

On Thursday, Jason Dean Lassiter, 45, an American, Scott Felix Jones, 35, another Briton, and Angus Bruce Jackson, 50, from New South Wales, faced Perth magistrates court **9.** \_\_\_\_\_ **(charge)** with conspiring and attempting to possess the drugs with intent to sell or supply.

The Australian was arrested at Perth airport while the other two were arrested in the centre of Perth on Wednesday.

Chris Dawson, Western Australia's police commissioner, said it was alleged that Lassiter, Jones and Jackson were "the shore party".

"They were in another boat and they were ready **10.** \_\_\_\_\_ **(receive)**," Dawson told ABC radio. "We've disrupted a big international drug syndicate here."

The dramatic drug bust unfolded after the yacht **11.** \_\_\_\_\_  
**(find)** **12.** \_\_\_\_\_ **(stick)** on a reef near Stick Island, which is about 7km from Burton Island in the Abrolhos archipelago.

Authorities **13.** \_\_\_\_\_ initially \_\_\_\_\_ **(concern)** that the occupants of the boat were in trouble at sea because a dinghy was missing from the yacht.

As planes searched the area, a crayfisherman saw someone on Burton Island **14.** \_\_\_\_\_ **(duck)** down in a bid **15.** \_\_\_\_\_ **(hide)** in low scrub as aircraft flew overhead, Geraldton volunteer marine rescue service vice commander Damien Healy said.

When police arrived, Dicenta and Palmer **16.** \_\_\_\_\_ **(make)** a run for their dinghy but **17.** \_\_\_\_\_ **(thwart)** by a huge sleeping seal, Healy told the broadcaster.

“They woke it up and it jumped up with its big chest out and bellowed at them.

“The guys basically had the choice of **18.** \_\_\_\_\_ **(go)** through the seal or **19.** \_\_\_\_\_ **(arrest)** and they **20.** \_\_\_\_\_  
\_\_\_\_\_ **(end up)** **21.** \_\_\_\_\_ **(choose)** **22.** \_\_\_\_\_  
\_\_\_\_\_ **(arrest).”**

Dawson had a tip for the pair. “If you’re in a hot pink shirt don’t try and hide in low scrub.”

Dicenta and Palmer faced court in Geraldton last week and **23.** \_\_\_\_\_  
\_\_\_\_\_ **(appear)** again on 20 September. Lassiter’s next court date is 26 September, Jones **24.** \_\_\_\_\_ **(be)** due on 8 October and Jackson **25.** \_\_\_\_\_ **(schedule)** for 21 November.

All five men **26.** \_\_\_\_\_ **(refuse)** bail and remanded in custody.

**Discussion task:** prepare to discuss the following questions:

1. Do you happen to know any similar story about a crime being unexpectedly prevented?
2. Should mass media pay more or less attention to drugs abuse than it does now?
3. Should risks of taking drugs be discussed at school?

### Task 3

#### Denmark frees 32 inmates over flaws in phone geolocation evidence

Jon Henley, *The Guardian*, 12 Sept. 2019

<https://www.theguardian.com/world/2019/sep/12/denmark-frees-32-inmates-over-flawed-geolocation-revelations>

**Grammar task:** use the words in the brackets in the appropriate form:

Denmark 1. \_\_\_\_\_ (release) 32 prisoners as part of an ongoing review of 10,700 criminal cases after serious questions arose about the reliability of geolocation data 2. \_\_\_\_\_ (obtain) from mobile phone operators, local media 3. \_\_\_\_\_ (report).

Nearly 40 new cases have been postponed under a two-month moratorium on the use of mobile phone records in trials, which 4. \_\_\_\_\_ (impose) after police found multiple glitches in the software that converts raw data from phone masts into usable evidence.

Among the errors police have discovered is a tendency for the system to omit some data during the conversion process, meaning only selected calls 5. \_\_\_\_\_ (register) and the picture of the phone's location is materially incomplete.

The system has also linked phones to the wrong masts, connected them to several towers at once, sometimes hundreds of kilometres apart, recorded the origins of text messages incorrectly and got the location of specific towers wrong.

Taken together, the problems meant not just that innocent people 6. \_\_\_\_\_ potentially \_\_\_\_\_ (can place) at crime scenes but that criminals 7. \_\_\_\_\_ wrongly \_\_\_\_\_ (can exclude) from inquiries, said Jan Reckendorff, Denmark's director of public prosecutions.

"This is a very, very serious issue," he told Denmark's state broadcaster DR. "We simply cannot live with the idea that information that isn't accurate could send people to prison."

Announcing the case review and moratorium late last month, Reckendorff conceded it was a "drastic decision, but necessary in a state of law".

The Danish justice minister, Nick Haekkerup, welcomed the decision, **8.** \_\_\_\_\_ **(say)** the first priority must always be **9.** \_\_\_\_\_ **(avoid)** miscarriages of justice. "We shouldn't take the risk that innocent people could be convicted," he said.

Operators **10.** \_\_\_\_\_ **(insist)** the errors **11.** \_\_\_\_\_ mostly \_\_\_\_\_ **(stem)** from the interpretation of their data and they should not **12.** \_\_\_\_\_ **(hold responsible)**. Authorities contend that in some instances the data has also been at fault, but Jakob Willer, of the country's telecoms industry association, said it was not their job to provide evidence.

"We should remember: data **13.** \_\_\_\_\_ **(create)** to help deliver telecom services, not to control citizens or for surveillance," Willer said. He conceded it could be valuable to police, but insisted its primary purpose was **14.** \_\_\_\_\_ **(facilitate)** communication between users.

There are no statistics on how many court cases in Denmark **15.** \_\_\_\_\_ **(decide)** on the basis of mobile phone data, but it is often used to corroborate other evidence and, although not **16.** \_\_\_\_\_ **(consider)** as reliable as DNA, **17.** \_\_\_\_\_ previously \_\_\_\_\_ **(see)** as highly accurate.

Karoline Normann, the head of the Danish law society's criminal law committee, said evidence once considered purely technical was now open to doubt. "Until now, mobile data **18.** \_\_\_\_\_ **(have)** a high significance and value in courtrooms because this kind of evidence has been considered almost objective," she told Agence-France Presse.

"This situation has changed our mindset about cellphone data. We are probably going to question it as we normally question a witness or other types of evidence, where we consider circumstances like who **19.** \_\_\_\_\_ **(produce)** the evidence, and why and how."

Isolated incidences of clearly inaccurate mobile data have occurred in the past in the US and South Africa, but this is the first time it **20.** \_\_\_\_\_ **(question)** by a national justice system. Three years ago a Kansas family sued a digital mapping company after **21.** \_\_\_\_\_ **(visit)** "countless times" by police.

Rather than wait for their case to be examined under the review, Danish prisoners  
22. \_\_\_\_\_ (start) 23. \_\_\_\_\_ (demand) their  
release on the grounds that their convictions were based on mobile phone evidence.

Not all 24. \_\_\_\_\_ (be) successful. Two members of an Aarhus criminal gang – one  
of whom insisted he 25. \_\_\_\_\_ (spend) the night at his  
parents' home but was placed at a crime scene by mobile phone records – had their appeals  
turned down this week because other evidence was considered conclusive.

**Discussion task:** prepare to discuss the following questions:

1. When can it be too dangerous to rely upon technology?
2. Some people say that modern mobile phones and smartphones are being used to spy on them. Do you agree with this statement?

## Task 4

### Interview: Will my cat eat my eyeballs? How Caitlin Doughty teaches kids about death

Marianne Eloise, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/books/2019/sep/12/will-my-cat-eat-my-eyeballs-how-caitlin-doughty-teaches-kids-about-death>

**Grammar task:** use the words in the brackets in the appropriate form:

When 1. \_\_\_\_\_ (face) with the question “what do you want to be when you grow up?”, very few kids 2. \_\_\_\_\_ (answer) “undertaker”. Caitlin Doughty, perhaps most famous for her YouTube channel Ask a Mortician, certainly wouldn't have. “I never had any sense of the funeral industry as anything other than this dark, archaic hole with a man in a suit 3. \_\_\_\_\_ (put) electric green fluid through a tube into a corpse. It never even occurred to me that I could be a part of it,” she says.

But maybe that is about to change. *Will My Cat Eat My Eyeballs?* 4. \_\_\_\_\_ (answer) 35 questions about death, sourced from curious children. From “Will I poop when I die?” to “Can I use bones from a human cremation as jewellery?”, it gets down to the morbid questions we all have – asked by children 5. \_\_\_\_\_ (unburden) by shame. “The kids make it clear that we're not being direct enough in how we talk about death,” Doughty says. “I think that a lot of adults never really 6. \_\_\_\_\_ (get) the kind of death education that they need.” She 7. \_\_\_\_\_ (compare) the silence about death to the reticence around sex: “My parents weren't necessarily talking about it, but I 9. \_\_\_\_\_ (watch) porn at my friend's house when I was nine because her older brother had it. There's always 10. \_\_\_\_\_ (be) these things 11. \_\_\_\_\_ (slip) in somehow.”



To the uninitiated, Doughty's work, unsurprisingly, sounds a little morbid. She has written two other books about death: her 2014 memoir *Smoke Gets in Your Eyes*, and 2018's *From Here to Eternity*, about death rituals around the world. On her YouTube channel, where you'll find videos including "Can I become mummified?" and "Corpse phallus capers of Rasputin and Napoleon", she's **12.** \_\_\_\_\_ **(answer)** questions from curious adults for seven years. But lifting the lid on that Pandora's box reveals a very admirable personal aim: **13.** \_\_\_\_\_ **(dispel)** the west's fear of death.

After attending mortuary school in San Francisco, Doughty, then 22, started working in a crematorium. It was not something she expected to become her life's work. "I kind of thought it would be a cool story to tell at a dinner party when I'm 45," she laughs. But she took to it quickly and found her mission on the way.

"When I started to learn about the commodification of death and the death industry in the western world, I realised we **14.** \_\_\_\_\_ something \_\_\_\_\_ **(take)** from us as a culture," she says. For *From Here to Eternity*, she travelled the world to observe different cultures' death rituals; the book is both sensitive and light, and thoroughly researched, written by an author who genuinely wanted to learn from, not **15.** \_\_\_\_\_ **(fetishise)**, other customs. "It's a problem in the US and the UK that we just suck our immigrant cultures up into our cookie-cutter, bland death rituals. Forcing them to leave behind rituals and ways of doing things that are really important to them," she says.

In 2011, Doughty founded The Order of the Good Death, a "death acceptance" collective that **16.** \_\_\_\_\_ **(aim)** to educate people on better ways to handle dying. From there, she started Ask a Mortician to answer people's questions about death. As well as the kookier queries, her videos also include "Helping a Friend Through Grief" and "Overcoming Death Denial in Your Family". She advocates for the family caring for the bodies of loved ones, and **17.** \_\_\_\_\_ **(find)** that "people instinctively want to be more involved, they just need an expert to say go for it." In 2015 she opened Undertaking LA, an "alternative" funeral home in Los Angeles that focused on being more affordable and getting the family involved (a new branch is about to open).

She **18.** \_\_\_\_\_ **(build)** up to *Will My Cat Eat My Eyeballs?* for years, with videos such as "It Gets Better, Morbid Kids!" While the idea might send shivers up some parents' spines, she says adults shouldn't shut down children's questions. "Maybe you're terrified that something you say is going to set off some deep death fear in them. Say it honestly, tell them 'If something **19.** \_\_\_\_\_ **(bug)** you, or you want **20.** \_\_\_\_\_ **(keep)** **21.** \_\_\_\_\_ **(talk)**, I'm always happy to talk to you about this'," she says. She wishes more adults **22.** \_\_\_\_\_ **(give)** children information early on, so

that when they inevitably **23.** \_\_\_\_\_ (**encounter**) death, “they’re already used to **24.** \_\_\_\_\_ (**talk**) about it, used to the more fun, interesting, curious parts.” She believes it’s possible, through science and humour, to train the brain “to see death as simultaneously very heavy and a source of great curiosity”.

As a child, Doughty learned about death violently when she saw another child fall in a shopping mall (“a complete aberration”). Afterwards, she developed OCD [obsessive-compulsive disorder] symptoms including tapping and compulsive spitting. “My brain was **25.** \_\_\_\_\_ (**invade**) with the knowledge of death and the fact that people could **26.** \_\_\_\_\_ (**take**) away from me at any moment and I couldn’t control it. All I could control were these little rituals.”

Like Doughty, my early relationship with death also manifested through OCD. Once I learned that people could be taken away, I **27.** \_\_\_\_\_ (**start**) **28.** \_\_\_\_\_ (**try**) **29.** \_\_\_\_\_ (**regain**) control through repetitive actions. That obsession has only intensified as I’ve got older, but the work of Doughty and other death-acceptance advocates **30.** \_\_\_\_\_ (**help**) **31.** \_\_\_\_\_ (**quell**) my fears. “I have never gotten a message that said ‘I watched your videos and it made it worse for me. I’m more anxious now, I’m more obsessive compulsive,’” she says. “People don’t necessarily like it when I use the word ‘control’, but I personally like it because I think that’s what happened to me. The feeling of empowering myself **32.** \_\_\_\_\_ (**know**) the reality. That truth did set me free, in a way, and made me feel better. It still makes me feel better about the fact that we **33.** \_\_\_\_\_ all \_\_\_\_\_ (**die**).”

Not everyone **34.** \_\_\_\_\_ (**feel**) the same. Some people find comfort in denial. Doughty’s humorous and transparent approach can be controversial, with some of her viewers and readers criticising her for not discussing grief enough. But she’s anything but insensitive, and knows better than anyone about the impact of losing someone: “You’re never **35.** \_\_\_\_\_ (**be**) the same again. But how can we turn this into something healthy as opposed to something else? Turning grief into healthy grief is not a disservice to the person who died, even if it was someone incredibly close to you. It’s not a disservice **36.** \_\_\_\_\_ (**mourn**) them in a healthy, open way. You’re never **37.** \_\_\_\_\_ (**get**) over it, no matter what, but you remember the experience with a sort of melancholic, whimsical engagement. You can really do the work, or you can just remember it as a source of deep trauma. You’re going to remember it one way or the other – so what **38.** \_\_\_\_\_ that \_\_\_\_\_ (**look like**)?”

Nobody likes to think about mortality, but if you’re going to, there are far worse places to start than Doughty. *Will My Cat Eat My Eyeballs?* is funny, dark, and at times stunningly existential,

39. \_\_\_\_\_ (**reveal**) not only how little we understand about death, but also how much kids can handle. As to whether or not your cat will eat your eyeballs? You'll just have to read the book to find out.

**Discussion task:** prepare to discuss the following questions:

1. At what age should children be told about death?
2. Do you know any traditional funeral and burial rituals?
3. Has people's attitude to death changed over the last decade/ several decades?

## Task 5

### Māori anger as Air New Zealand seeks to trademark 'Kia Ora' logo

Eleanor Ainge Roy, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/world/2019/sep/12/maori-anger-as-air-new-zealand-seeks-to-trademark-kia-ora-logo>

**Grammar task:** use the words in the brackets in the appropriate form:

New Zealand's national carrier, Air New Zealand, 1. \_\_\_\_\_ (**offend**) the country's Māori people by attempting to trademark an image of the words "kia ora", the greeting for hello.

The airline applied in May to trademark the image 2. \_\_\_\_\_ (**show**) the greeting, which is also the name of its in-flight magazine.

The Intellectual Property Office of New Zealand told TVNZ the airline 3. \_\_\_\_\_ (**seek**) to protect only the "particular stylised forms" of the greeting, rather than the greeting itself, but Indigenous groups said the words 4. \_\_\_\_\_ (**belong**) to them, and that the trademark application was a cynical business move.

The Māori Council 5. \_\_\_\_\_ (**say**) it would take the airline to court if it goes ahead with the trademark move, and called the application "harebrained" and "an insult to New Zealanders".

It is Māori language week in New Zealand and the council's executive director Matthew Tukaki said Māori people and businesses would boycott the company if the trademark application 6. \_\_\_\_\_ (**go**) ahead.

“Let’s be really clear here. This is an insult pure and simple,” Tukaki said in a statement. “I am sick and tired of cultural appropriation and in fact all Māori are – our language is a national treasure for all of us and we need to respect it. It’s not here for business to use it and profit from it as they see fit.”

“My suggestion is stick to your core business because you sure as hell don’t get to trademark Māori words.”

Intellectual property experts said the trademark was unlikely **7.** \_\_\_\_\_  
\_\_\_\_\_ **(approve)** because the language was a common greeting between all races in New Zealand, and **8.** \_\_\_\_\_ **(use)** abundantly by businesses, government institutions and private companies.

The application would also need to pass through the Māori trademarks advisory committee, which provides advice to the commissioner of trade marks.

**Discussion task:** prepare to discuss the following questions:

1. Do people need to preserve their cultural heritage?
2. How to keep traditional cultural heritage in the modern globalised world?
3. Is commercialisation a thread to traditional cultural heritage?

## Task 6

### Japan should scrap nuclear reactors after Fukushima, says new environment minister

Justin McCurry, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/world/2019/sep/12/japan-should-scrap-nuclear-reactors-after-fukushima-says-new-environment-minister>

**Grammar task:** use the words in the brackets in the appropriate form:

Japan’s new environment minister has called for the country’s nuclear reactors to **1.** \_\_\_\_\_ **(scrap)** **2.** \_\_\_\_\_ **(prevent)** a repeat of the Fukushima nuclear disaster.

Shinjiro Koizumi’s comments, **3.** \_\_\_\_\_ **(make)** hours after he became Japan’s third-youngest cabinet minister since the war, could set him on a collision course with Japan’s pro-nuclear prime minister, Shinzo Abe.

"I would like to study how we 4. \_\_\_\_\_ (scrap) them, not how to retain them," Koizumi, 38, said. "We will be doomed if we allow another nuclear accident to occur. We never know when we'll have an earthquake."

Koizumi faced an immediate challenge from the new trade and industry minister, who said that ridding Japan of nuclear power was "unrealistic".

"There are risks and fears about nuclear power," Isshu Sugawara told reporters. "But 'zero-nukes' is, at the moment and in the future, not realistic."

Japan's government 5. \_\_\_\_\_ (want) nuclear power to comprise 20% to 22% of the overall energy mix by 2030, drawing criticism from campaigners who 6. \_\_\_\_\_ (say) nuclear plants 7. \_\_\_\_\_ always \_\_\_\_\_ (pose) a danger given the country's vulnerability to large earthquakes and tsunamis.

Abe, however, 8. \_\_\_\_\_ (call) for reactors 9. \_\_\_\_\_ (restart), arguing that nuclear energy 10. \_\_\_\_\_ Japan \_\_\_\_\_ (help achieve) its carbon dioxide emissions targets and reduce its dependence on imported gas and oil.

All of Japan's 54 reactors 11. \_\_\_\_\_ (shut) down after a giant tsunami caused a triple meltdown at the Fukushima Daiichi nuclear power plant in March 2011.

Nuclear power accounted for about 30% of Japan's energy production before the disaster. Today, just nine reactors are back in operation, having passed stringent safety checks introduced after the Fukushima meltdown.

But the government is unlikely to meet its target of 30 reactor restarts by 2030 amid strong local opposition and legal challenges.

Although he 12. \_\_\_\_\_ (face) potential opposition from inside the cabinet, Koizumi should at least receive the backing of his father, Junichiro Koizumi, a former prime minister who has emerged as a vocal opponent of nuclear power.

While Japan debates the future of nuclear energy, the younger Koizumi, who 13. \_\_\_\_\_ (tip) as a future prime minister,

is now at the centre of a controversy over the future of more than a million tonnes of contaminated water stored at Fukushima Daiichi.

On Tuesday, his predecessor as environment minister said the plant's operator, Tokyo Electric Power, had no choice but **14.** \_\_\_\_\_ **(dilute)** the water and release it into the Pacific ocean rather than store it indefinitely.

The prospect of dumping the water into the sea **15.** \_\_\_\_\_ **(anger)** local fishermen and drawn protests from neighbouring South Korea.

**Discussion task:** prepare to discuss the following questions:

1. Should people abandon using nuclear power?
2. What can people do to make their environment safer?

## Task 7

### Scientists use IVF procedures to help save near-extinct rhinos

Ian Sample, *The Guardian*, 11 Sep. 2019

<https://www.theguardian.com/environment/2019/sep/11/scientists-use-ivf-procedures-to-help-save-near-extinct-rhinos>

**Grammar task:** use the words in the brackets in the appropriate form:

Scientists have successfully created two embryos of the near-extinct northern white rhino in a landmark effort to save the species.

The international team of researchers and conservationists drew on IVF [in vitro fertilization] procedures to create the embryos from fresh eggs **1.** \_\_\_\_\_ **(collect)** from the two remaining female rhinos and frozen sperm from dead males.

The achievement, announced at a press conference in Italy on Wednesday, **2.** \_\_\_\_\_ **(pave)** the way for specialists to transfer the embryos into a surrogate mother – a southern white rhino – in the near future.

"Today we achieved an important milestone on a rocky road which **3.** \_\_\_\_\_ **(allow)** us to plan the future steps in the rescue programme of the northern white rhino," said Thomas Hildebrandt, head of the BioRescue project at Leibniz Institute for Zoo and Wildlife Research.

The embryos were created at Avantea Laboratories in Cremona, Italy, and **4.** \_\_\_\_\_ **(store)** in liquid nitrogen until the team is ready to transfer them to the surrogate mother.

Northern white rhinos **5.** \_\_\_\_\_ **(be)** in decline for decades. By 2018 the population **6.** \_\_\_\_\_ **(dwindle)** to two remaining females, Najin and Fatu at Ol Pejeta Conservancy in Kenya, who are the last of their kind in the world.

Cesare Galli said his team **7.** \_\_\_\_\_ **(collect)** five immature eggs from each female which were airlifted to the Italian laboratory. There, the eggs were incubated to provide three mature eggs for Najin and four for Fatu.

The scientists then used a common IVF procedure called intracytoplasmic sperm injection, or ICSI, **8.** \_\_\_\_\_ **(fertilise)** the eggs. Fatu's **9.** \_\_\_\_\_ **(inject)** with thawed out sperm taken from a dead male called Suni, while Najin's eggs were fertilised with poorer quality sperm collected from a male called Saut. After 10 days of incubation, two of Fatu's eggs developed into viable embryos, but none of Najin's made it.

"Five years ago, it seemed like the production of a northern white rhino embryo was an almost unachievable goal, and today we have them," said Jan Stejskal at Dvůr Králové Zoo in the Czech Republic, where Najin and Fatu were born.

The last of the male northern white rhinos was 45-year-old named Sudan who rose to fame in 2017 when a fundraising effort listed him on the Tinder dating app as "The Most Eligible Bachelor in the World". He was put down in March last year for health reasons **10.** \_\_\_\_\_ **(bring)** on by old age.

The dramatic decline of the northern white rhinos **11.** \_\_\_\_\_ **(drive)** by poaching. Sudan was the last known male to be born in the wild, in the country from which he got his name. The southern white rhino and the black rhino **12.** \_\_\_\_\_ also \_\_\_\_\_ **(target)** by poachers, who **13.** \_\_\_\_\_ **(kill)** them for their horns to supply illegal markets in parts of Asia.

About 21,000 southern white rhinos still exist and females **14.** \_\_\_\_\_ \_\_\_\_\_ **(use)** as surrogate mothers in the effort to save the

northern species. Scientists hope that the first northern white rhino will be born from an IVF embryo in the next two years.

Even if healthy northern white rhino calves are born from the IVF embryos, conservationists **15.** \_\_\_\_\_ still \_\_\_\_\_ **(face)** an enormous challenge in the lack of genetic diversity in the population. One way to broaden the animals' gene pool is to create eggs from rhino skin cells stored around the world, but the technology may not be available for another decade.

"This is a major step forward in our efforts to recover the northern white rhinos," said Richard Vigne, managing director of Ol Pejeta Conservancy. "We have a very long way to go and we must remember that, for most species facing extinction, the resources that are being dedicated to saving the northern whites simply don't exist. Global human behaviour still needs to radically change if the lessons of the northern white rhinos **16.** \_\_\_\_\_ **(be)** **17.** \_\_\_\_\_ **(learn).**"

**Discussion task:** prepare to discuss the following questions:

1. Why is it important to save different species of animals?
2. How can people be friendlier towards animals?
3. What do you know about interspecies friendship?

## Task 8

### Behind India's construction boom, a world of 'systematic slavery'

Paul Salopek, *National Geographic*, Sept. 11, 2019

<https://www.nationalgeographic.com/culture/2019/09/behind-india-construction-boom-brick-making-systematic-slavery/>

**Grammar task:** use the words in the brackets in the appropriate form:

The ABC Brick Company, located near the steamy banks of Brahmaputra River in the northeastern state of Assam, **1.** \_\_\_\_\_ **(be)** much like any of the estimated 200,000 other brickmaking kilns operating in India. And contract laborer Shazima Kathum, 24, **2.** \_\_\_\_\_ **(share)** the same fate as roughly 12 million other workers toiling in such dusty brickyards.

A small, thin, sharp-featured woman, Kathum looks older than her years.



Her parents, also brickmakers, **3.** \_\_\_\_\_ **(force)**  
**4.** \_\_\_\_\_ **(sell)** their tiny plot of farmland because their fields  
**5.** \_\_\_\_\_ no longer \_\_\_\_\_ **(can feed)** the family. They also needed  
cash to build a house to accommodate six daughters. So Kathum abandoned school at age 14.  
And she **6.** \_\_\_\_\_ **(toil)** ever since under the smokestacks of  
various brick companies. For five months of dry weather each year, **7.** \_\_\_\_\_ **(jog)**  
beneath a molten white sun, she lugs about 40 pounds—or about eight to 10 unfired bricks—  
atop her head. A human forklift, she covers several miles a day racing to and from the firing  
pits. Her sweat turns the thick coating of dust on her face into mud.

"I make 136 rupees per 1,000 bricks," she says, citing daily earnings that add up to less than  
two dollars. "At first my back really hurt. But you just **8.** \_\_\_\_\_  
\_\_\_\_\_ **(get used to)** it."

India is the world's second largest brick producer after China. **9.** \_\_\_\_\_  
\_\_\_\_\_ **(feed)** a decade-long construction boom in its exploding megacities,  
multiplying call centers, and new industrial parks, it bakes a staggering 250 billion bricks a year.

But for a much longer time, an immense army of Indian brickmakers **10.** \_\_\_\_\_  
\_\_\_\_\_ **(serve)** as global poster children for exploitative labor practices.

**11.** \_\_\_\_\_ **(protect)** in theory by minimum wage laws, anti-child labor rules, and  
regulations **12.** \_\_\_\_\_ **(prohibit)** bonded labor, millions of men, women, and  
children still endure conditions that one human rights group calls "systematic slavery." Many  
laborers **13.** \_\_\_\_\_ **(lock)** into their backbreaking work by  
debts to dodgy labor brokers, who **14.** \_\_\_\_\_ **(charge)** exorbitant fees to secure  
the jobs. A recent medical survey **15.** \_\_\_\_\_ **(find)** that nearly half the nation's  
brick workers **16.** \_\_\_\_\_ **(are)** underweight. More than half were anemic.

At the brickyard outside Dhubri, most of the loaders carting raw bricks to the kilns were  
women. They **17.** \_\_\_\_\_ **(sing)** as they **18.** \_\_\_\_\_ **(balance)** their  
heavy burdens down wooden gangways into the earthen furnaces.

"I **19.** \_\_\_\_\_ **(pay)** my sister's school fees," Kathum said of a  
younger sibling in the sixth grade. "I don't ever want her to do this."

Then she **20.** \_\_\_\_\_ **(hustle)** off for another payload of bricks.

**Discussion task:** prepare to discuss the following questions:

1. Do you know other examples of modern slavery?
2. What can a person do not to become a slave?

## Task 9

### New 'smart' skin changes color using a trick learned from chameleons

Carrie Arnold, *National Geographic*, Sept. 11, 2019

<https://www.nationalgeographic.com/animals/2019/09/chameleon-inspired-smart-skin-changes-color/>

**Grammar task:** use the words in the brackets in the appropriate form:

Chameleons make changing color look easy. In just a few moments, these lizards can shift the hue of their skin to intimidate predators, camouflage themselves, or find mates. Scientists

1. \_\_\_\_\_ (spend) decades unraveling the chameleon's color-changing secrets in the lab, and their years of work have yielded a new smart skin that
2. \_\_\_\_\_ (change) color when exposed to the sun.

"This is something nature does all the time," says Khalid Salaita, a bioengineer at Emory University and senior author of the new paper published September 11 in *ACS Nano*. "And we

3. \_\_\_\_\_ (can trigger) color change using direct sunlight."

The material

4. \_\_\_\_\_ (can use)
5. \_\_\_\_\_ (make) everything from camouflage clothing and coatings to chemical and environmental sensors.

Biochemist Leila Deravi of Northeastern University, who wasn't involved in the study,

6. \_\_\_\_\_ (say) that this new smart skin
7. \_\_\_\_\_ (overcome) a "major problem for engineers" by figuring out how to elicit a color change without
8. \_\_\_\_\_ (alter) the volume of a polymer.

Long before Harry Potter donned his invisibility cloak, animals from all walks of life have been manipulating their own color for a variety of reasons. This ability

9. \_\_\_\_\_ (evolve) several times independently in reptiles, neon tetra fish, butterflies, and in cephalopods like octopus and squid.

The skin cells of these animals **10.** \_\_\_\_\_ (**contain**) tiny crystals crammed together that are called photonic crystals. Unlike pigments, which have an intrinsic hue, these crystals reflect and scatter light differently based on their size, chemical makeup, and arrangement—creating color.

Researchers discovered in a 2015 *Nature Communications* paper that chameleon skin cells **11.** \_\_\_\_\_ (**have**) guanine crystals interspersed with ‘regular’ skin cells. To change colors, the lizards **12.** \_\_\_\_\_ (**can compress**) or flex their crystal-containing cells, causing different wavelengths of light to be reflected—and meanwhile, the normal skin cells can expand or shrink **13.** \_\_\_\_\_ (**fill**) in any gaps.

To build a color-changing smart skin in the lab, scientists **14.** \_\_\_\_\_ typically \_\_\_\_\_ (**embed**) photonic crystals in a jelly-like polymer. Yixiao Dong, first author of the new study and a doctoral student in Salaita’s lab, suggested tweaking this formula by creating a hydrogel with two layers, just like the chameleon skin.

“It **15.** \_\_\_\_\_ (**sound**) like the perfect solution,” Salaita says.

The team created a small, thin flexible structure, not unlike a silicone bracelet, that contained one layer **16.** \_\_\_\_\_ (**embed**) with photonic crystals of iron oxide mixed with silicon dioxide. At a chemical level, “it **17.** \_\_\_\_\_ (**be**) basically a rust core with a sand shell,” Salaita says. The other contained a colorless polymer.

They then exposed the skin to sunlight and light from lasers. This is unique from other previous attempts at smart skin, which **18.** \_\_\_\_\_ typically \_\_\_\_\_ (**trigger**) with high voltage electric current.

In one experiment, Dong shaped a yellow smart skin into a leaf. After five minutes in the sun, the leaf **19.** \_\_\_\_\_ (**turn**) green, which **20.** \_\_\_\_\_ (**make**) it **21.** \_\_\_\_\_ (**blend**) into a group of leaves he **22.** \_\_\_\_\_ (**snip**) from a tree outside the lab, demonstrating the smart skin’s camouflage potential. He performed a similar color change with a fish-shaped polymer. Dong and Salaita then created even faster shifts using a laser light.

“It’s a clever way to get color changes with light,” Deravi says. She calls the work a good first step but says that it will be a long time until smart skins are ready for commercial use.

One of the biggest challenges **23.** \_\_\_\_\_ (be)  
**24.** \_\_\_\_\_ (make) smart skins large enough for clothing, panels, and other human uses. Salaita also points out that animals have far better control over their color shifts and can create more dramatic changes than human-made materials.

**Discussion task:** prepare to discuss the following questions:

1. Would you like to wear clothes made of 'smart' skin?
2. What other examples of modern technology inspired by nature do you know?

## Task 10

### The 4 Things That Will Hurt Your Relationship the Most

April Eldemire, *Psychology Today*, Sept. 10, 2019

<https://www.psychologytoday.com/intl/blog/couples-thrive/201909/the-4-things-will-hurt-your-relationship-the-most>

**Grammar task:** use the words in the brackets in the appropriate form:

Every relationship has its conflicts and communication issues, but not all relationship problems  
**1.** \_\_\_\_\_ (create) equal. Research from esteemed psychologist and relationship expert John Gottman **2.** \_\_\_\_\_ (reveal) at least four characteristics which tend to spell serious trouble for intimate partners. So damaging  
**3.** \_\_\_\_\_ their effects that together they **4.** \_\_\_\_\_ (earn) an ominous nickname: The Four Horsemen. But while the New Testament's version of The Four Horsemen represents the end of times, these horsemen  
**5.** \_\_\_\_\_ even necessarily \_\_\_\_\_ (not have to) **6.** \_\_\_\_\_ (lead to) the end of a relationship—not when couples learn how to identify these characteristics and replace them with healthier ones.

**CRITICISM.** This is different from constructive feedback and complaints—both of which, while potentially perceived as “negative,” can be legitimate ways to express concerns over a specific issue or situation.

Harmful criticism rests on absolutes and questions a person's entire character, rather than a specific trait or behavior. Statements such as “You're always late” or “You're so selfish and you never listen to me” are good examples of unhealthy criticism. Instead of **7.** \_\_\_\_\_ (acknowledge) a specific concern (e.g., “I feel frustrated when you show up late”), an overly critical partner **8.** \_\_\_\_\_ (put down) their loved one in an ill-suited attempt to express their frustration.

If criticisms continue unabated, the recipient may begin to feel hurt, rejected, and under attack. Unfortunately, this can pave the way for the other Horsemen to enter the relationship.

**CONTEMPT.** Contempt is the darker side of criticism. Beyond merely putting a person down, the contemptuous partner **9.** \_\_\_\_\_ **(assume)** moral superiority over them. They feel “better than” their partner and attempt to make him or her feel worthless. Cruel and unloving sarcasm, ridicule, and mean-spirited language (verbal and non-verbal) **10.** \_\_\_\_\_ **(be)** prevalent.

Contempt doesn’t only hurt a person emotionally. Research shows that couples that experience contempt are more likely to become ill. This **11.** \_\_\_\_\_ likely \_\_\_\_\_ **(relate)** to the fact that chronic stress—often brought about by a toxic and unhealthy relationship—weakens the immune system.

**DEFENSIVENESS.** **12.** \_\_\_\_\_ **(be)** criticized again and again often causes a partner to feel and act defensively. He or she may come up with excuses in an attempt to explain away what their partner **13.** \_\_\_\_\_ them \_\_\_\_\_ **(accuse of)**, rather than assuming personal responsibility or trying to see things from their partner’s perspective.

While understandable, defensiveness isn’t an effective conflict resolution strategy. Defensiveness can fuel feelings of contempt and resentment, and often leads to a back-and-forth blame game that **14.** \_\_\_\_\_ **(be)** unproductive, destructive, and stressful.

**STONEWALLING.** The last of The Four Horsemen is essentially a diversion tactic. One or both partners—usually in response to overwhelming negativity created by the three other Horsemen—withdraws, shuts down, and stops interacting or communicating. Instead of confronting the issue or seeking help, a stonewalling person simply evades the situation, often by walking away, tuning out, acting busy, or engaging in obsessive or repetitive behaviors.

The first step in eliminating The Four Horsemen from a relationship **15.** \_\_\_\_\_ **(be)** **16.** \_\_\_\_\_ **(become)** aware of their presence. Couples must learn to recognize these traits when they show up; working with a licensed marriage counselor or other mental health professional can help.

The next step is to replace these negative traits with positive ones. These include:

- Discussing concerns or complaints using “I statements.”
- Regularly expressing gratitude and appreciation.
- Taking personal responsibility and offering genuine apologies when indicated.
- Taking breaks when feeling stressed or overwhelmed.

**Discussion task:** prepare to discuss the following questions:

1. Do you find the advice given in this article useful?
2. What can you add to this advice?

## Task 11

### Fugitive Couple Accused Of Murder Are Caught After Weeks On The Run

Brakkton Booker, *National Public Radio News*, Sept. 12, 2019

<https://www.npr.org/2019/09/12/760148163/fugitive-couple-accused-of-murder-are-caught-after-weeks-on-the-run>

**Grammar task:** use the words in the brackets in the appropriate form:

Husband-and-wife murder suspects who 1. \_\_\_\_\_ (**overpower**) their guards as they 2. \_\_\_\_\_ (**extradite**) from New York to Arizona and then 3. \_\_\_\_\_ (**manage**) to elude the law for weeks 4. \_\_\_\_\_ finally \_\_\_\_\_ (**run**) out of road.

Blane Barksdale, 56 and his wife, Susan, 59, 5. \_\_\_\_\_ (**take**) into custody Wednesday evening. The Navajo County (Ariz.) Sheriff's Office 6. \_\_\_\_\_ (**say**) on Facebook that it 7. \_\_\_\_\_ (**assist**) the U.S. Marshals Service and that the Barksdales 8. \_\_\_\_\_ (**apprehend**) "without incident."

The couple escaped custody on Aug. 26 en route to Arizona, where they 9. \_\_\_\_\_ (**face**) charges including first-degree murder in connection with the death of a 72-year-old Arizona man.

The Marshals Service 10. \_\_\_\_\_ (**say**) the couple "overpowered and kidnapped" two security officers and another prisoner near Blanding, Utah, about 50 miles from the Utah-Arizona border. Blane Barksdale is 6-foot-5 and weighs about 260 pounds, while Susan Barksdale is 5-foot-7 and 120 pounds.

The couple drove the prison transport vehicle to Vernon, Ariz., where they got a pickup truck **11.** \_\_\_\_\_ (**provide**) by an acquaintance, according to officials. Then they "abandoned the locked prison van with the three occupants inside."

They **12.** \_\_\_\_\_ (**spot**) driving a red GMC Sierra truck with an Arizona license plate before they seemingly vanished.

On Monday, the Marshals Service sent an alert **13.** \_\_\_\_\_ (**say**) the search for the couple **14.** \_\_\_\_\_ " \_\_\_\_\_ " (**intensify**) and that Blane Barksdale **15.** \_\_\_\_\_ (**add**) to its 15 Most Wanted List. The Marshals offered a reward of up to \$25,000 for information leading directly to his arrest. A reward for up to \$10,000 **16.** \_\_\_\_\_ (**offer**) for information on Susan Barksdale.

The Barksdales **17.** \_\_\_\_\_ (**suspect**) of killing a man named Frank Bligh in Tucson, Ariz. Marshals **18.** \_\_\_\_\_ (**say**) Bligh **19.** \_\_\_\_\_ (**be**) missing since his home burned down April 16. Investigators determined the fire **20.** \_\_\_\_\_ (**set**) intentionally and discovered that more than 100 firearms **21.** \_\_\_\_\_ (**steal**) from the residence.

Evidence prompted authorities **22.** \_\_\_\_\_ (**issue**) homicide arrest warrants for the couple.

They also **23.** \_\_\_\_\_ (**face**) charges of first-degree burglary, arson of an occupied structure, criminal damage and auto theft.

**Discussion task:** prepare to discuss the following questions:

1. Does this story resemble any movie to you? Why do you think so?
2. Why are many people keen on reading crime news?

## Task 12

### Clinic Ordered To Reveal Sperm Donor List After Baby Mix Up

Vanessa Romo, *National Public Radio News*, Sept. 11, 2019

<https://www.npr.org/2019/09/11/759975966/clinic-ordered-to-reveal-sperm-donor-list-after-baby-mix-up>

**Grammar task:** use the words in the brackets in the appropriate form:

The New Jersey couple 1. \_\_\_\_\_ (try and try) to have a baby.

When they were unable 2. \_\_\_\_\_ (conceive) on their own, Kristina Koedderich and Drew Wasilewski opted for artificial insemination through IVF, or in vitro fertilization. In 2013, after 3. \_\_\_\_\_ (spend) nearly \$500,000, the procedure 4. \_\_\_\_\_ them \_\_\_\_\_ (help realize) their parenting goals with the arrival of a baby girl.

But when the child was about two years old, the couple, who are white, 5. \_\_\_\_\_ (begin) 6. \_\_\_\_\_ (notice) changes in her features. She looked Asian. A DNA test later 7. \_\_\_\_\_ (reveal) Wasilewski was not her biological parent, according to a 8. \_\_\_\_\_ (file) lawsuit against the clinic.

Court documents 9. \_\_\_\_\_ (say) somewhere along the way the Institute for Reproductive Medicine and Science in Livingston, N.J., made a horrific mistake, 10. \_\_\_\_\_ (impregnate) Koedderich with the sperm of someone who 11. \_\_\_\_\_ (be) not her husband.

"It 12. \_\_\_\_\_ (be) devastating for them," the now-divorced couple's attorney, David Mazie, of Mazie, Slater, Katz & Freeman, told NPR.

"13. \_\_\_\_\_ (go) through all the shots, all of the treatments, 14. \_\_\_\_\_ (spend) all of that money, and 15. \_\_\_\_\_ (be) lucky enough 17. \_\_\_\_\_ (have) a child but then 18. \_\_\_\_\_ (find out) it's not 100% your child ... it's inexcusable. It should never happen," Mazie said.



The institute **19.** \_\_\_\_\_ immediately \_\_\_\_\_ (**not respond**) to a request for comment.

Koedderich and Wasilewski say the clinic's negligence caused "the breakdown of the marriage." They **20.** \_\_\_\_\_ (**sue**) the clinic for unspecified damages.

"They also want to know what happened to Drew's sperm. They took it and it **21.** \_\_\_\_\_ (**defrost**). If they didn't use it for this procedure they **22.** \_\_\_\_\_ (**must use**) it in some other procedure," Mazie said.

To find out the answer to that question, Superior Court Judge Keith Lynott ordered the clinic **23.** \_\_\_\_\_ (**hand over**) a list of all of the men and women who used the facility around the same time as Wasilewski and Koedderich.

"If he has children, he wants to know. He wants to meet them," Mazie said.

The attorney added that his clients also want to know the identity of their child's biological father to learn more about her genetic history. According to the filing, the girl, who is now six, **24.** \_\_\_\_\_ (**inherit**) a genetic blood disorder associated with Southeast Asian heritage.

When she is older, the girl may also want to develop a relationship with her biological parent "and she has a right to that," Mazie added.

**Discussion task:** prepare to discuss the following questions:

1. With the advancements of modern technology some people claim it will soon be possible to genetically design babies. Would you like to have your child genetically "improved"?
2. What challenges might genetically "improved" people face?

## Task 13

### Apple Launches Video-Streaming Service For \$4.99 A Month

Avie Schneider, *National Public Radio News*, Sept. 10, 2019

<https://www.npr.org/2019/09/10/759500972/apple-launches-video-streaming-service-for-4-99-a-month>

**Grammar task:** use the words in the brackets in the appropriate form:

Apple 1. \_\_\_\_\_ (enter) the video-streaming race, 2. \_\_\_\_\_ (take on) Netflix, Amazon, Disney and others with a monthly subscription of \$4.99. The company also 3. \_\_\_\_\_ (announce) three new iPhones, even as their sales 4. \_\_\_\_\_ (slow).

The new Apple TV+ service 5. \_\_\_\_\_ previously \_\_\_\_\_ (announce), but on Tuesday the company 6. \_\_\_\_\_ (reveal) the low price and the launch date, Nov. 1, with nine original titles, including *The Morning Show with Reese Witherspoon and Jennifer Aniston*.

Apple 7. \_\_\_\_\_ (say) it 8. \_\_\_\_\_ (offer) one year for free to customers who 9. \_\_\_\_\_ (buy) a new iPhone, iPad, Apple TV, Mac or iPod Touch. An Apple TV+ subscription 10. \_\_\_\_\_ (can share) with up to six family members.

Apple's new service costs considerably less than Netflix, which has a standard subscription of \$8.99 per month. The Disney+ service 11. \_\_\_\_\_ (debut) Nov. 12 at \$6.99 per month.

As 12. \_\_\_\_\_ (expect), Apple also 13. \_\_\_\_\_ (unveil) its new iPhone 11, which will start at \$699, and the iPhone 11 Pro and the iPhone 11 Pro Max, starting at \$999 and \$1,099, respectively. All three phones 14. \_\_\_\_\_ (feature) 15. \_\_\_\_\_ (improve) cameras and higher video capabilities.

Along with the new streaming service, Tuesday's announcements, which included a \$4.99 monthly cost for the new Apple Arcade gaming service, 16. \_\_\_\_\_ (represent) a continuing shift in the importance of services to Apple's bottom line.

For years, the iPhone **17.** \_\_\_\_\_ (**represent**) the majority of Apple's sales, but the company **18.** \_\_\_\_\_ (see) its numbers drop. In Apple's fiscal third quarter, which ended June 29, iPhone sales made up less than half of Apple's revenues — down from 63% four years ago. China isn't just where iPhones are made; it's also one of the top markets for the device. But amid China's economic slowdown, Apple's sales in China, Taiwan and Hong Kong fell 19% in Apple's third quarter from a year earlier.

**Discussion task:** prepare to discuss the following questions:

1. Would you like to try the service described in the article? Why? / Why not?
2. How is video-streaming changing people's lives?

## Task 14

### Hurricane Dorian Unearths Civil War Cannonballs at South Carolina Beach

Meilan Solly, Smithsonian.com, Sept. 10, 2019

<https://www.smithsonianmag.com/smart-news/hurricane-dorian-unearths-civil-war-cannonballs-south-carolina-beach-180973095/>

**Grammar task:** use the words in the brackets in the appropriate form:

In recent years, hurricanes **1.** \_\_\_\_\_ (**unearth**) an array of unexpected finds: among others, a dugout canoe **2.** \_\_\_\_\_ (**believe**) **3.** \_\_\_\_\_ (**be**) more than 100 years old, the remains of a 19th-century historic fort and a World War II-era gun mount. Now, Hurricane Dorian has added another discovery to the list. As Lillian Donahue **4.** \_\_\_\_\_ (**report**) for local news station WCSC, a couple **5.** \_\_\_\_\_ (**explore**) the shores of South Carolina's Folly Beach in the aftermath of last week's destructive storm **6.** \_\_\_\_\_ (**chance upon**) a pair of Civil War cannonballs **7.** \_\_\_\_\_ (**bury**) near a pile of brush.

"At first, we just thought it was a rock," Aaron Lattin, a South Carolinian who found the artillery with his girlfriend Alba, explains to WCSC. "[But] the more we **8.** \_\_\_\_\_ (**get to**) **9.** \_\_\_\_\_ (**look**), we realized it was something more than a rock."

According to Donahue, the duo visited the beach in search of artifacts **10.** \_\_\_\_\_ (**wash**) ashore during the hurricane. Lattin originally hoped to scour the area with a metal detector, but they discovered the 8-inch cannonball and a smaller 3-inch shell without the aid

of any treasure-hunting tools: “We actually just got lucky with no equipment,” he adds, “just 11. \_\_\_\_\_ (spend) a day at the beach.”

Andrew Gilreath, head of the Folly Beach Department of Public Safety, 12. \_\_\_\_\_ (tell) CNN’s David Williams that authorities 13. \_\_\_\_\_ (block off) the area where the objects 14. \_\_\_\_\_ (find) until explosive ordnance disposal experts from the Charleston County Sheriff’s Office and the U.S. Air Force 15. \_\_\_\_\_ (arrive) 16. \_\_\_\_\_ (assess) the situation. Although the team deemed the cannonballs safe, Gilreath says the experts 17. \_\_\_\_\_ probably \_\_\_\_\_ (destroy) them to avoid the possibility of future accidents.

As Laura Geggel 18. \_\_\_\_\_ (report) for *Live Science* in 2016, centuries-old cannonballs still 19. \_\_\_\_\_ (pose) a significant safety threat. Some are simply large steel projectiles, but others are live explosives liable 20. \_\_\_\_\_ (detonate) if 21. \_\_\_\_\_ (handle). In 2008, for example, hobbyist Sam White, 53, 22. \_\_\_\_\_ (restore) a 75-pound cannonball when it 23. \_\_\_\_\_ (explode), 24. \_\_\_\_\_ (kill) him and 25. \_\_\_\_\_ (send) shrapnel 26. \_\_\_\_\_ (fly) into his neighbor’s porch.

Lattin’s find actually 27. \_\_\_\_\_ (represent) the second set of Civil War cannonballs 28. \_\_\_\_\_ (find) at Folly Beach over the past several years. In October 2016, Hurricane Matthew unearthed a trove of 16 cannonballs at the South Carolina site; as Gilreath told Geggel at the time, authorities’ hopes of displaying the weapons 29. \_\_\_\_\_ (thwart) by the realization that a “large number of them were explosive cannonballs, and thus contained old and very unstable gunpowder.” Ultimately, explosive experts 30. \_\_\_\_\_ (destroy) the majority of the artifacts.

According to the City of Folly Beach website, Union [US Northern] soldiers 31. \_\_\_\_\_ (seize) control of the island in 1863, 32. \_\_\_\_\_ (build) roads, forts, an artillery battery and a supply depot sizable enough 33. \_\_\_\_\_ (support) 13,000 troops.

Given the region’s close ties to the Civil War, Gilreath says the cannonball finds are not wholly uncommon.

“This is something that 34. \_\_\_\_\_ (happen) every couple of years since I 35. \_\_\_\_\_ (be) here, at least,” Gilreath tells CNN’s Williams. “We 36. \_\_\_\_\_ (have) some erosion on the

beach, and something **37.** \_\_\_\_\_  
(uncover).”

**Discussion task:** prepare to discuss the following questions:

1. Old cannonballs and weapon is often exhibited in the museums. Some people hate expositions with these objects because they were the means of killing. What is your attitude to old weapon been exhibited?
2. Did you dream about digging out a treasure when you were a child?

## Task 15

### New Evidence That Grandmothers Were Crucial for Human Evolution

Joseph Stromberg, Smithsonian.com, Oct. 23, 2012

<https://www.smithsonianmag.com/science-nature/new-evidence-that-grandmothers-were-crucial-for-human-evolution-88972191/>

**Grammar task:** use the words in the brackets in the appropriate form:

For years, anthropologists and evolutionary biologists **1.** \_\_\_\_\_  
\_\_\_\_\_ (**struggle**) **2.** \_\_\_\_\_ (**explain**) the  
existence of menopause, a life stage that humans do not share with our primate relatives. Why  
**3.** \_\_\_\_\_ it \_\_\_\_\_ (**be**) beneficial for females to stop  
**4.** \_\_\_\_\_ (**be able to**) have children with  
decades still left **5.** \_\_\_\_\_ (**live**)?

According to a study **6.** \_\_\_\_\_ (**publish**) today in the journal *Proceedings of the Royal Society B*, the answer is grandmothers. “Grandmothering was the initial step toward  
**7.** \_\_\_\_\_ (**make**) us who we **8.** \_\_\_\_\_ (**be**),” **9.** \_\_\_\_\_  
(**say**) senior author Kristen Hawkes, an anthropologist at the University of Utah. In 1997 Hawkes proposed the “grandmother hypothesis,” a theory that **10.** \_\_\_\_\_ (**explain**)  
menopause by **11.** \_\_\_\_\_ (**cite**) the under-appreciated evolutionary value of  
grandmothering. Hawkes says that grandmothering **12.** \_\_\_\_\_ (**help**) us to  
develop “a whole array of social capacities that **13.** \_\_\_\_\_ (**be**) then the  
foundation for the evolution of other distinctly human traits, including pair bonding, bigger  
brains, learning new skills and our tendency for cooperation.”

The new study, which Hawkes **14.** \_\_\_\_\_ (**conduct**) with mathematical biologist  
Peter Kim of the University of Sydney and Utah anthropologist James Coxworth,  
**15.** \_\_\_\_\_ (**use**) computer simulations to provide mathematical evidence for the

grandmother hypothesis. 16. \_\_\_\_\_ (test) the strength of the idea, the researchers simulated what 17. \_\_\_\_\_ (happen) to the lifespan of a hypothetical primate species if they 18. \_\_\_\_\_ (introduce) menopause and grandmothers as part of the social structure.

In the real world, female chimpanzees typically 19. \_\_\_\_\_ (live) about 35 to 45 years in the wild and rarely 20. \_\_\_\_\_ (survive) past their child-bearing years. In the simulation, the researchers replicated this, but they gave 1 percent of the female population a genetic predisposition for human-like life spans and menopause. Over the course of some 60,000 years, the hypothetical primate species 21. \_\_\_\_\_ (evolve) the ability 22. \_\_\_\_\_ (live) decades past their child-bearing years, surviving into their sixties and seventies, and eventually 43 percent of the adult female population were grandmothers.

How 23. \_\_\_\_\_ grandmothers \_\_\_\_\_ (help) us live longer? According to the hypothesis, grandmothers 24. \_\_\_\_\_ (help collect) food and feed children before they are able to feed themselves, enabling mothers 25. \_\_\_\_\_ (have) more children. Without grandmothers present, if a mother 26. \_\_\_\_\_ (give birth) and already 27. \_\_\_\_\_ (have) a two-year-old child, the odds of that child surviving 28. \_\_\_\_\_ (be) much lower, because unlike other primates, humans aren't able to feed and take care of themselves immediately after weaning. The mother 29. \_\_\_\_\_ (must devote) her time and attention to the new infant at the expense of the older child. But grandmothers 30. \_\_\_\_\_ (can solve) this problem by acting as supplementary caregivers.

In the hypothesis—and in the computer simulation—the few ancestral females who 31. \_\_\_\_\_ initially \_\_\_\_\_ (be able to live) to postmenopausal ages increased the odds of their grandchildren surviving. As a result, these longer-lived females were disproportionately likely to pass on their genes that 32. \_\_\_\_\_ (favor) longevity, so over the course of thousands of generations, the species as a whole evolved longer lifespans.

But why 33. \_\_\_\_\_ females \_\_\_\_\_ (evolve) 34. \_\_\_\_\_ only \_\_\_\_\_ (ovulate) for 40 or so years into these longer lives? Hawkes and other advocates of the hypothesis note that, without menopause, older women 35. \_\_\_\_\_ simply \_\_\_\_\_ (continue) to mother children, instead of acting as grandmothers. All children 36. \_\_\_\_\_ still \_\_\_\_\_ (be) entirely dependent on their mothers for survival, so once older mothers 37. \_\_\_\_\_ (die), many young offspring 38. \_\_\_\_\_ likely \_\_\_\_\_ (die) too. From an evolutionary perspective, it 39. \_\_\_\_\_ (make) more sense for older females to

increase the group's overall offspring survival rate instead of spending more energy on producing their own.

Hawkes goes one step further, arguing that the social relations that go along with grandmothering **40.** \_\_\_\_\_ **(can contribute)** to the larger brains and other traits that **41.** \_\_\_\_\_ **(distinguish)** humans. "If you are a chimpanzee, gorilla or orangutan baby, your mom **42.** \_\_\_\_\_ **(think)** about nothing but you," she says. "But if you are a human baby, your mom has other kids she **43.** \_\_\_\_\_ **(worry)** about, and that **44.** \_\_\_\_\_ **(mean)** now there is selection on you—which was not on any other apes—to much more actively engage her: 'Mom! Pay attention to me!'"

As a result, she says, "Grandmothering gave us the kind of upbringing that made us more dependent on each other socially and prone to engage each other's attention." This trend, Hawkes says, drove the increase in brain size, along with longer lifespans and menopause.

The theory is by no means definitive, but the new mathematical evidence serves as another crucial piece of support for it. This **45.** \_\_\_\_\_ **(can help)** anthropologists better understand human evolution—and should give you another reason **46.** \_\_\_\_\_ **(go)** **47.** \_\_\_\_\_ **(thank)** your grandmother.

**Discussion task:** prepare to discuss the following questions:

1. What is the role of the grandmother in traditional Ukrainian culture?
2. Is this role changing?
3. Can you tell about your grandmother?

## Task 16

### Prehistoric Farmers' Teeth Show Humans Were Drinking Animal Milk 6,000 Years Ago

Meilan Solly, Smithsonian.com, Sept. 11, 2019

<https://www.smithsonianmag.com/smart-news/prehistoric-farmers-teeth-show-humans-were-drinking-animal-milk-6000-years-ago-180973101/>

**Grammar task:** use the words in the brackets in the appropriate form:

A new analysis of Neolithic farmers' dental plaque **1.** \_\_\_\_\_ **(suggest)** milk **2.** \_\_\_\_\_ **(be)** a staple in humans' diets for millennia. As researchers **3.** \_\_\_\_\_ **(lead)** by Sophy Charlton of England's University of York

4. \_\_\_\_\_ (**report**) in the journal *Archaeological and Anthropological Sciences*, traces of beta lactoglobulin—a protein present in cow, sheep and goat milk—  
5. \_\_\_\_\_ (**entomb**) in prehistoric Britons' plaque 6. \_\_\_\_\_  
(**represent**) the earliest direct evidence of milk consumption 7. \_\_\_\_\_ (**find**) to date.

According to *Atlas Obscura's* Anne Ewbank, Charlton and her colleagues tested ten sets of teeth  
8. \_\_\_\_\_ (**unearth**) at three Neolithic sites across southern England: Hambledon Hill, Hazleton North and Banbury Lane. Using mass spectrometry analysis, the team identified peptides from the beta lactoglobulin protein in seven of these individuals' calcified plaque. Although the exact type of milk consumed at each settlement remains unclear, certain peptides point toward Hambledon Hill's predilection for goat milk and Hazleton North's preference for cow or sheep milk. According to the study, however, zooarchaeological evidence  
9. \_\_\_\_\_ (**recover**) at the sites remains "most consistent" with cattle milk.

"The fact that we found this protein in the dental calculus of individuals from three different Neolithic sites 10. \_\_\_\_\_ (**may suggest**) that dairy consumption was a widespread dietary practice in the past," Charlton 11. \_\_\_\_\_ (**say**) in a press release.

Crucially, Paul Rincon 12. \_\_\_\_\_ (**write**) for *BBC News*, the majority of Neolithic Europeans—including the British farmers 13. \_\_\_\_\_ (**feature**) in the study—were lactose intolerant, 14. \_\_\_\_\_ (**make**) it difficult for them to drink milk without 15. \_\_\_\_\_ (**experience**) unpleasant side effects. The ability to break down lactose sugar in milk is a relatively modern one: As the study 16. \_\_\_\_\_ (**note**), just 5 to 10 percent of Europeans 17. \_\_\_\_\_ (**possess**) the genetic mutation responsible for this process by the Bronze Age, which lasted from around 3,000 to 1,000 B.C. (In Britain, the preceding Neolithic period 18. \_\_\_\_\_ (**run**) from 4,000 to 2,400 B.C. and saw the rise of such practices as farming, animal domestication and monument building.)

To cope with their lactose intolerance, early Britons 19. \_\_\_\_\_ (**may imbibe**) small amounts of milk at a time or, in a more plausible scenario, 20. \_\_\_\_\_ (**process**) the drink to reduce its lactose content. "If you 21. \_\_\_\_\_ (**process**) [milk] into a cheese, or a fermented milk product, or a yogurt, then it 22. \_\_\_\_\_ (**decrease**) the lactose content so you [can] more easily digest it," Charlton tells *BBC News*.

Dairy fats and milk residue 23. \_\_\_\_\_ (**discover**) in Neolithic pottery across the European continent 24. \_\_\_\_\_ (**support**) this theory, offering evidence of heating and other forms of milk product processing. At Hambledon Hill specifically, the archaeologists



25. \_\_\_\_\_ (write) in the study, more than a quarter of pottery fragments  
26. \_\_\_\_\_ (recover) 27. \_\_\_\_\_ (hold) traces of milk lipids.

Prior research 28. \_\_\_\_\_ (pinpoint) the origins of milk consumption to thousands of years before these British farmers arrived on the scene. In 2016, for example, a study published in the *Proceedings of the National Academy of Sciences* 29. \_\_\_\_\_ (draw on) prehistoric pottery 30. \_\_\_\_\_ (discover) in the northern Mediterranean 31. \_\_\_\_\_ (posit) that the practice started as early as 9,000 years ago. Still, *Atlas Obscura's* Ewbank 32. \_\_\_\_\_ (explain), the new analysis is the first 33. \_\_\_\_\_ (draw on) human remains 34. \_\_\_\_\_ directly \_\_\_\_\_ (date) milk consumption to the Neolithic period.

Moving forward, the researchers 35. \_\_\_\_\_ (hope) to assess whether members of prehistoric societies “consumed differential amounts of dairy products or dairy from different animals” on the basis of sex, gender, age or social standing. Additionally, Charlton says in the statement, “Identifying more ancient individuals with evidence of [the milk protein] in the future may ... increase our understanding of how genetics and culture 36. \_\_\_\_\_ (interact) to produce lactase persistence.”

**Discussion task:** prepare to discuss the following questions:

1. Are eating habits and food preferences changing in the society?
2. Some people say that drinking milk is healthy while others claim it is not. What is your opinion?

## Task 17

### A Brief History of the Waffle Iron

David Kindy, Smithsonian.com, Aug. 23, 2019

<https://www.smithsonianmag.com/innovation/brief-history-waffle-iron-180972980/>

**Grammar task:** use the words in the brackets in the appropriate form:

There's no waffling about waffles: people love them! 1. \_\_\_\_\_ (cover) in syrup, 2. \_\_\_\_\_ (fill) with fruit, 3. \_\_\_\_\_ (pile) high with ice cream or 4. \_\_\_\_\_ (serve) with fried chicken, Americans love waffles. The Waffle House alone, founded in 1955, 5. \_\_\_\_\_ (sell) approximately 145 waffles every minute of every day at its 2,100 restaurants in 25 states.

6. \_\_\_\_\_ (**Thank**) goodness for the waffle iron. The modern version of this ancient kitchen utensil 7. \_\_\_\_\_ (**invent**) by Cornelius Swartwout 150 years ago. He created a stove-top version of the waffle iron that was easy to turn and less likely to burn the hand of the cook.

In fact, we 8. \_\_\_\_\_ (**celebrate**) Swartwout's invention every August 24 on National Waffle Day, a commemoration that 9. \_\_\_\_\_ (**coincide**) with the date his patent 10. \_\_\_\_\_ (**issue**) by the U.S. Patent and Trademark Office in 1869.

Waffle irons 11. \_\_\_\_\_ (**be around**) for a long time. The ancient Greeks had a version that they used to make wafers similar to today's waffles. Medieval Europeans also used them to cook early waffles. However, these devices mostly consisted of two iron plates with wooden handles. Users 12. \_\_\_\_\_ (**hold**) them over an open fire or on the hearth and 13. \_\_\_\_\_ (**try**) not to burn the waffles—or themselves.

Yve Colby, a museum technician at the Smithsonian's National Museum of American History, researched the product for nearly two years while working on the Domestic Life Collection, which 14. \_\_\_\_\_ (**have**) at least 50 waffle irons 15. \_\_\_\_\_ (**date**) back more than 300 years.

"It's a complicated history," Colby says. "Waffle irons date back a long way. Our collection includes wafer irons from the early 18th century to an electric waffle iron made in 1984."

In the early days of waffle irons, the plates often included delicate designs, almost like etchings, that left imprints on the waffle. As time progressed, and people began to include tasty toppings, the waffle iron began to take on more of the grid shape we know today, which 16. \_\_\_\_\_ (**leave**) gaps in the cooked product to hold syrup, fruit and other stomach-pleasing treats.

Trouble was, the old waffle irons were hard to handle. They were heavy and cumbersome, and the user often 17. \_\_\_\_\_ (**burn**). The wooden handles tended to 18. \_\_\_\_\_ (**scorch**), as 19. \_\_\_\_\_ (**do**) the waffle since it 20. \_\_\_\_\_ really \_\_\_\_\_ (**cannot check**) to see if it 21. \_\_\_\_\_ (**be**) cooked.

That's when Swartwout saved the day. He developed the first waffle iron that  
22. \_\_\_\_\_ (sit) easily on a wood stove and included a useful  
handle for 23. \_\_\_\_\_ (open), 24. \_\_\_\_\_ (close) and  
25. \_\_\_\_\_ (turn) the device without 26. \_\_\_\_\_  
(burn). Described as an "Improvement in Waffle-Irons," his invention received U.S. Patent No.  
94,043, which 27. \_\_\_\_\_ (assign) to himself, Joseph Foxell,  
Thomas Jones and Edward W. Millard, all of Troy, New York.

In the patent, Swartwout provided the following description:

*"The nature of my invention 28. \_\_\_\_\_ (consist) in<sup>1</sup> providing a handle,  
29. \_\_\_\_\_ (connect) with and 30. \_\_\_\_\_ (form) part of a  
waffle-iron, by means of which the same 31. \_\_\_\_\_  
readily \_\_\_\_\_ (may turn over) without danger of  
32. \_\_\_\_\_ (slip), and without the possibility of burning the hand."*

*It also consists in 33. \_\_\_\_\_ (provide) a device, by means of which the  
upper or covering portion of a waffle-iron 34. \_\_\_\_\_  
\_\_\_\_\_ (may raise), so as 35. \_\_\_\_\_  
(expose) the interior, for 36. \_\_\_\_\_ (fill) or for 37. \_\_\_\_\_  
(remove) the waffle when 38. \_\_\_\_\_ (do), without danger of the cover  
slipping back, and without burning the hand."*

Obviously, Swartwout wanted to minimize the chances of singeing the skin. The inventor's  
ancestry was Dutch, which was one of the formative cultures in the 14th century that  
39. \_\_\_\_\_ (kick off) the early waffle craze. More than likely,  
he witnessed family members 40. \_\_\_\_\_ (burn) as they tried  
to cook waffles with the old iron plates.

Swartwout's device became quite popular and 41. \_\_\_\_\_ (spread) quickly around  
the country. Websites today are loaded with antique waffle irons, dating from 1869 through  
the early 20th century, when electric models were first introduced. General Electric actually  
developed a prototype of the first electric waffle iron in 1911, but didn't begin production until  
seven years later.

The waffle iron 42. \_\_\_\_\_ (be) a source of gastronomic  
pleasure for multiple generations. From sweet and syrupy to sumptuous and savory, this  
\_\_\_\_\_

<sup>1</sup> Editor's note from Kirsten Dyck: while some people still use the phrase "to consist in," this is mostly an archaic literary construction now. In contemporary English usage, especially in North America, "to consist of" is a more common way to express the idea that something contains several specific parts.

invention **43.** \_\_\_\_\_ (sate) appetites for breakfast, lunch, dinner and even midnight snacks.

It was also responsible for another innovative concept that left an important footprint on modern culture: the athletic shoe. In 1972, University of Oregon track coach Bill Bowerman applied for a patent for a new kind of sports footwear that featured shaped rubber studs on the sole to provide better traction. The inventor used his wife's waffle iron to create the patterned grips on the bottom of the shoe. Bowerman, who later founded Nike, was off and running.

"We actually have the original Nike Waffle Shoe on display at the National Museum of American History," Colby says.

Visitors can ooh and aah over the trainers—part of the museum's "American Enterprise" exhibition. But, for this product, **44.** \_\_\_\_\_ (hold) the syrup.

**Discussion task:** prepare to discuss the following questions:

1. Do you use any objects that were used by your grandparents?
2. What modern technology do you use for cooking?

## Task 18

### Why Killer Whales Belong in the Ocean, Not SeaWorld

Jerry Adler, *Smithsonian Magazine*, March 2015

<https://www.smithsonianmag.com/arts-culture/why-killer-whales-belong-in-the-ocean-not-seaworld-180954333/>

**Grammar task:** use the words in the brackets in the appropriate form:

He **1.** \_\_\_\_\_ (**be**) a whistle-blower who **2.** \_\_\_\_\_ (**carry**) an actual whistle, which he wore around his neck during his 12 years as a trainer of killer whales at SeaWorld theme parks. The whistle, **3.** \_\_\_\_\_ (**intend**) to get the attention of the 8,000-pound animals **4.** \_\_\_\_\_ (**swim**) around in the tank, saved his life on occasion, but it easily **5.** \_\_\_\_\_ (**can cost**) him his life if a whale **6.** \_\_\_\_\_ (**grab**) it to pull him into the water. As a precaution, John Hargrove writes in a new book, *Beneath the Surface*, the lanyard had a breakaway ring—and thus served as a “kind of rosary, a subtle reminder of how suddenly the hour of death **7.** \_\_\_\_\_ (**may come upon**) you when working with orcas.”

Hargrove was one of the first voices **8.** \_\_\_\_\_ (**hear**) in *Blackfish*, the 2013 documentary that **9.** \_\_\_\_\_ (**raise**) questions about SeaWorld's practices; it **10.** \_\_\_\_\_ (**release**) three years after the death of a SeaWorld trainer named Dawn Brancheau, who **11.** \_\_\_\_\_ (**attack**) by an orca during a performance. Hargrove's book **12.** \_\_\_\_\_ (**elaborate**) on some of the documentary's claims but also testifies to the thrill of standing athwart four tons of muscle rushing through the water at 30 miles an hour. And, equally, the nearly mystical experience of bonding with an intelligence eerily similar to our own, yet ultimately unfathomable—and uncontrollable.

Hargrove, who quit SeaWorld in 2012, suffered numerous broken bones and nearly destroyed his sinuses. It was a risk he ran with his eyes open, and one that, in the end, he **13.** \_\_\_\_\_ (**seem**) to feel **14.** \_\_\_\_\_ (**be**) almost worth it. "I **15.** \_\_\_\_\_ (**owe**) those whales," he **16.** \_\_\_\_\_ (**say**) in an interview. "They gave me so much in my life and my career." But the whales' physical and emotional well-being, he grew to believe, was incompatible with captivity. Confined to unnatural social groups for the convenience of their owners, bored and restless, forced to perform tricks for food that trainers withheld as punishment, they occasionally **17.** \_\_\_\_\_ (**slip**), he writes, "into the dark side."

SeaWorld **18.** \_\_\_\_\_ (**not discuss**) Hargrove's book before it appears, but vice president of communications Fred Jacobs writes in an email that "John Hargrove joined ranks with animal rights extremists after leaving SeaWorld and **19.** \_\_\_\_\_ eagerly \_\_\_\_\_ (**embrace**) their habit of misleading the public to advance an agenda." The company **20.** \_\_\_\_\_ (**dispute**) most of the assertions in *Blackfish*, but it **21.** \_\_\_\_\_ (**outfit**) some pools with fast-rising floors, so that a person who **22.** \_\_\_\_\_ (**fall**) into the water with a whale **23.** \_\_\_\_\_ quickly \_\_\_\_\_ (**can lift**) to the surface. (After Brancheau's death, the Occupational Safety and Health Administration prohibited trainers from performing in the water with orcas.) Trainers **24.** \_\_\_\_\_ (**begin**) **25.** \_\_\_\_\_ (**carry**) emergency compressed air. And the San Diego park **26.** \_\_\_\_\_ (**plan**) to begin construction this year on a new orca habitat, called Blue World, that **27.** \_\_\_\_\_ more than \_\_\_\_\_ (**double**) the swimming space.

Hargrove, living now in New York City, **28.** \_\_\_\_\_ (**adopt**) a pet of his own: Beowulf, a 98-pound pit bull-Dalmatian cross. She is, he says, as close as you can get to a killer whale in dog form.

**Discussion task:** prepare to discuss the following questions:

1. Have you ever seen a dolphin show? If yes, what was your impression? / If no, would you like to see one?
2. Should wild animals be used for shows in the circus?

## Task 19

### Unique Salt Coating Helped Preserve 25-Foot-Long Dead Sea Scroll

Jason Daley, Smithsonian.com, Sept. 9, 2019

<https://www.smithsonianmag.com/smart-news/unique-salt-coating-helped-preserve-25-foot-long-dead-sea-scroll-180973074/>

**Grammar task:** use the words in the brackets in the appropriate form:

How **1.** \_\_\_\_\_ the Dead Sea Scrolls—documents **2.** \_\_\_\_\_ (**write**) on parchment, papyrus and bronze—\_\_\_\_\_ (**survive**) almost 2,000 years in caves near the Dead Sea? Researchers **3.** \_\_\_\_\_ (**intrigue**), in particular, by one document called the Temple Scroll, a 25-foot-long parchment that still **4.** \_\_\_\_\_ (**maintain**) a bright white surface. Now, a new study of the scroll **5.** \_\_\_\_\_ (**elucidate**) some of the methods that **6.** \_\_\_\_\_ (**keep**) it intact for millennia.

Back in 1947, a Bedouin shepherd **7.** \_\_\_\_\_ (**search**) for a lost sheep found a series of caves in the limestone cliffs above the Dead Sea near Qumran. Inside, he **8.** \_\_\_\_\_ (**come across**) clay jars in which a handful of scrolls **9.** \_\_\_\_\_ (**stuff**). In the following decades, further excavations in the area uncovered around 900 scrolls written in Hebrew, Aramaic and Greek, dating from the 3rd century B.C. to the 1st century A.D. Some scrolls contained content from the Bible while others were non-biblical religious texts. It **10.** \_\_\_\_\_ (**believe**) the scrolls **11.** \_\_\_\_\_ (**hide**) in the caves by a sect called the Essenes, **12.** \_\_\_\_\_ (**protect**) the texts from destruction by the Roman Empire, though that theory **13.** \_\_\_\_\_ (**come**) recently \_\_\_\_\_ under scrutiny.

To understand how the Temple Scroll survived all those years, a research team **14.** \_\_\_\_\_ (**give**) access to a 1-inch fragment of the parchment—itsself just 1/250th of an inch thick—from The Shrine of the Book, a museum in Jerusalem that **15.** \_\_\_\_\_ (**hold**) the scroll. Besides **16.** \_\_\_\_\_ (**be**) super long, the scroll is unusual in several ways, Nicola Davis at *The Guardian* reports: The text **17.** \_\_\_\_\_ (**write**) on the flesh side of the skin, which is uncommon. The thin parchment may be an animal skin that **18.** \_\_\_\_\_ (**split**) in two. And the text is written on a thick layer

19. \_\_\_\_\_ (contain) lots of inorganic minerals 20. \_\_\_\_\_ (press) into the collagen.

The team tested the parchment's chemical composition and mapped it in high resolution using specialized techniques. "These methods 21. \_\_\_\_\_ (allow) us to maintain the materials of interest under more environmentally friendly conditions, while we collect hundreds of thousands of different elemental and chemical spectra across the surface of the sample, 22. \_\_\_\_\_ (map out) its compositional variability in extreme detail," coauthor James Weaver of the Wyss Institute at Harvard University explains in a press release.

What they found were some unexpected chemicals, in particular salts that 23. \_\_\_\_\_ (not come from) the Dead Sea region. The paper appears in the journal *Science Advances*.

In ancient times, parchment 24. \_\_\_\_\_ (make) from animal hide that 25. \_\_\_\_\_ the hair and tissue \_\_\_\_\_ (remove) through enzymatic treatments before it was scraped down and stretched. After it dried, the hide was sometimes prepped further using salts. While other scrolls from the region were prepared with salt derived from the Dead Sea, the proportion of sulfur, sodium, and calcium on the Temple Scroll don't match salt from the area, 26. \_\_\_\_\_ (mean) the salt came from elsewhere, though the team does not yet know where. Maria Temming at Science News 27. \_\_\_\_\_ (report) that the scroll also 28. \_\_\_\_\_ (contain) gypsum, glauberite and thenardite, which aren't found in the area either. "Sometimes you find a lot of inorganic components on these scrolls or fragments, and they probably came from the caves," says coauthor Admir Masic, an MIT research scientist. In this case, however, the minerals were not present in the caverns.

Co-author Ira Rabin of Hamburg University in Germany tells Davis that while the mineral coating is unusual, it's consistent with the western tradition of parchment preparation in which parchments are untanned or lightly tanned. In the eastern tradition, parchment hides are completely tanned. Temming reports that a similar coating was found on a few other Dead Sea Scrolls as well, meaning that it's possible that the prepared parchment 29. \_\_\_\_\_ (import) into the area.

30. \_\_\_\_\_ (figure out) how the parchment was made  
31. \_\_\_\_\_ not only \_\_\_\_\_ (shed) some light on the Temple Scroll; it  
32. \_\_\_\_\_ also \_\_\_\_\_ document researchers of all sorts  
\_\_\_\_\_ (can help spot) forgeries and aid in document conservation. "This study has far-reaching implications beyond the Dead Sea Scrolls. For example, it shows that at the dawn of parchment making in the Middle East, several techniques were in use, which is in stark

contrast to the single technique used in the Middle Ages,” Rabin says in the press release. “The study also shows how to identify the initial treatments, thus providing historians and conservators with a new set of analytical tools for classification of the Dead Sea Scrolls and other ancient parchments.”

The most important finding to come out of the study, however, is the confirmation that the mineral coatings on the parchment are hygroscopic, meaning that they easily **33.** \_\_\_\_\_ (**absorb**) moisture from the air. That moisture **34.** \_\_\_\_\_ (**can degrade**) the underlying parchment, meaning conservators need to pay special attention to humidity levels, since even small fluctuations **35.** \_\_\_\_\_ (**can cause**) a scroll that **36.** \_\_\_\_\_ (**survive**) the last 2,000 years of history in a forgotten jar **37.** \_\_\_\_\_ finally \_\_\_\_\_ (**crumble**) inside a high-tech museum.

**Discussion task:** prepare to discuss the following questions:

1. Have you ever paid attention to the old documents, scrolls, books exhibited in the museums?
2. Have you got any old books at home? Would you like to have some?
3. What is the oldest book you have ever seen/ read?

## Task 20

### A Warming Climate Threatens Archaeological Sites in Greenland

Lucas Joel, Smithsonian.com, Aug. 30, 2019

<https://www.smithsonianmag.com/science-nature/warming-climate-threatens-archaeological-sites-greenland-180973021/>

**Grammar task:** use the words in the brackets in the appropriate form:

In Norse mythology, there are many myths that once known, **1.** \_\_\_\_\_ now \_\_\_\_\_ (**lose**). But the Norse, of course, left behind more than their tales. They also left behind their things and, in places like Anavik, on the western coast of Greenland, their dead.

And long before Vikings came to Greenland, the indigenous Inuit people left behind mummies, as well as hair with intact DNA.



Elsewhere in the Arctic, on an icy island called Spitsbergen, there's a place called the Corpse Headlands, where there are graves **2.** \_\_\_\_\_ (**fill**) with the bodies of 17th and 18th century whalers. When archeologists excavated the site in the 1970s, they found down-filled pillows, mittens, and pants **3.** \_\_\_\_\_ (**sew**) together from pieces of other pants.

The Arctic's ice **4.** \_\_\_\_\_ (**help preserve**) these snippets of human history. But snippets of organic material **5.** \_\_\_\_\_ (**rot**) when it's hot, and new research **6.** \_\_\_\_\_ (**find**) that as the world warms, remains like those at Anavik and Corpse Headlands **7.** \_\_\_\_\_ (**decompose**) before archaeologists are ever able to unearth them.

"The microbial degradation of the organic carbon **8.** \_\_\_\_\_ (**be**) really temperature dependent," said Jørgen Hollesen, a geographer at the National Museum of Denmark in Copenhagen.

To get a clearer picture of the warming, Hollesen and his team installed weather stations at five sites in western Greenland, where they measured soil temperature and water content. Inland sites, they found, get less rain overall than coastal sites, and they also tend to be hotter. Such dryness and hotness, Hollesen said, create ripe conditions for decomposition because bacteria that **9.** \_\_\_\_\_ (**decompose**) organic matter have more air **10.** \_\_\_\_\_ (**breathe**).

The team then modeled, under different greenhouse gas emissions scenarios, just how much decomposition they **11.** \_\_\_\_\_ (**may expect**) **12.** \_\_\_\_\_ (**see**) in the next century.

They found that instead of Arctic archaeological remains **13.** \_\_\_\_\_ (**take**) at least a century or more **14.** \_\_\_\_\_ fully \_\_\_\_\_ (**decompose**), up to 70 percent **15.** \_\_\_\_\_ likely \_\_\_\_\_ (**vanish**) in the next 80 years. In Greenland alone, there are over 6,000 registered archaeological sites. This number includes both Norse and Inuit sites.

"We cannot afford the luxury of thinking that heritage sites preserved underground **16.** \_\_\_\_\_ (**preserve**)," said Vibeke Vandrup Martens, an archaeologist with the Norwegian Institute for Cultural Heritage Research who **17.** \_\_\_\_\_ (**not involve**) in the new *Scientific Reports* study.

Vandrup Martens 18. \_\_\_\_\_ (study) remains on Svalbard that  
19. \_\_\_\_\_ (stand) a good chance of 20. \_\_\_\_\_ (decompose) at a  
rapid pace over the coming years, and she hopes this new research will help archaeologists like  
her when it 21. \_\_\_\_\_ (come to) 22. \_\_\_\_\_  
(prioritize) which of those sites they need 23. \_\_\_\_\_ (work)  
24. \_\_\_\_\_ (preserve). "It's a question of choosing, or just  
accepting 25. \_\_\_\_\_ (lose) it," she 26. \_\_\_\_\_  
(say).

It's still not possible to say what kinds of remains, 27. \_\_\_\_\_ (be) they bones or  
clothes or wood, 28. \_\_\_\_\_ (decompose) first. But  
29. \_\_\_\_\_ that \_\_\_\_\_ (find out) 30. \_\_\_\_\_ (be) what  
Hollesen 31. \_\_\_\_\_ (want) 32. \_\_\_\_\_ (do) next  
by 33. \_\_\_\_\_ (keep) an eye on what kinds of remains 34. \_\_\_\_\_  
\_\_\_\_\_ (appear to decompose) the  
fastest.

"We don't know which ones contain something that could be fantastic," he said. "You don't  
know what you 35. \_\_\_\_\_ (not find) yet."

**Discussion task:** prepare to discuss the following questions:

4. Is it important to preserve historic sites?
5. Should historic sites be made open to tourist visits?

## Keys

### Task 1

#### Why Instagram could be a major site for disinformation in the 2020 US election

Paul M. Barrett, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/commentisfree/2019/sep/12/why-instagram-could-be-a-major-site-for-disinformation-in-the-2020-election>

With the first Democratic primaries only five months away, it's time for American voters to steel themselves for new waves of election disinformation **1. delivered** via social media. Instagram, the photo- and video-posting platform, **2. could play** a larger role than many people **3. anticipate**.

Facebook and Twitter received the lion's share of attention in connection with Russia's election interference in 2016. But Instagram **4. was** more important as a vehicle for disinformation than **5. is** commonly **understood**, and it could become a crucial Russian instrument again next year.

Instagram's image-oriented service makes it an ideal venue for memes, which are photos combined with short, punchy text. Memes, in turn, are an increasingly popular vehicle for phony quotes and other disinformation. Deepfake videos are another potential danger on Instagram. **6. Made** with readily available artificial intelligence tools, deepfakes seem real to the naked eye and **7. could be used 8. to present** candidates as saying or doing things they **9. have** never **said** or **done**.

There's more to worry about than just Instagram. As I explain in a new report published by the New York University Stern Center for Business and Human Rights, the Russians may not be the only foreign operatives targeting the US. Iranians **10. pretending** to be Americans have already jumped into the US disinformation fray. And China, which **11. has deployed** English-language disinformation against protesters in Hong Kong, could turn to the US next.

In terms of sheer volume, domestically generated disinformation – **12. coming** mostly from the US political right, but also from the left – **13. will** probably **exceed** foreign-sourced false content. One of the conspiracy theories likely to gain traction in coming months is that the major social media companies **14. are conspiring** with Democrats to defeat Donald Trump's bid for re-election.

Whoever **15. is spreading** disinformation **16. meant** to rile up the American electorate, Instagram will almost certainly come into play. Started in 2010, it was acquired by Facebook 18 months later for \$1bn. Today, Instagram has about 1 billion users, compared to nearly 2.4 billion for Facebook, 2 billion for YouTube (which is owned by Google), and 330 million for Twitter.

In 2016, the Internet Research Agency (IRA), a notorious Russian trolling operation, enjoyed more US user engagement on Instagram than it did on any other social media platform, according to a report commissioned by the Senate intelligence committee and released in December 2018. “Instagram was a significant front in the IRA’s influence operation, something Facebook executives **17. appear to 18. have avoided** mentioning in Congressional testimony,” the report said. “Our assessment is that Instagram is likely to be a key battleground on an ongoing basis.”

The Senate report found there were 187m user engagements with IRA material on Instagram – more than twice as many as on Facebook (77m) or Twitter (73m). One meme posted on Instagram by the IRA’s phony “Blacktivist” account showed a police officer half-clad in a Ku Klux Klan hood-and-sheet above the statement: “The KKK has infiltrated police departments for years.”

Other observers have noted that, beyond Russian interference, domestically generated hoaxes and conspiracy theories **19. are thriving** on Instagram. These include QAnon, a widely circulated rightwing conspiracy theory about a “deep state” plot to take down Trump.

“Instagram is a hotbed for disinformation dissemination,” Otavio Freire, chief technology officer and president of SafeGuard Cyber, a social media security company, told me. “The visual nature of content makes it easier to stoke discord by speaking to audiences’ beliefs through memes. This content is easy and inexpensive to produce but more difficult to factcheck than articles from dubious sites.”

Facebook belatedly **20. is trying** to filter out some of the muck found on Instagram. In the past year, hundreds of Instagram accounts have been removed for displaying what Facebook calls “coordinated inauthentic behavior”.

In August, Facebook announced a test program that uses image-recognition and other tools to find questionable content on Instagram, which is then sent to outside fact-checkers that work with Facebook. In addition, Instagram users now for the first time can flag dubious content as they encounter it. The platform has made it easier for users to identify suspicious accounts by disclosing such information as the accounts’ location and the ads they’re running.

A Facebook company spokesperson said: “We have learned many lessons from 2016 and **21. have built** strong defenses to stop people from **22. trying** to interfere in elections. We’re investing heavily in staff and systems and are working constantly to try and stay one step ahead of our adversaries. We **23. will be sharing** a number of updates in the coming months as we continue our work.”

But Facebook and Instagram could do more. Content that factcheckers deem to be false is removed from certain Instagram pages but not taken down altogether. In my view, once social media platforms carefully determine that material is provably false, it ought to be eliminated so that it won’t spread further. Platforms should retain a copy of the excised content in a cordoned-off archive available for research purposes to scholars, journalists and others.

Another problem is that Facebook and the other major social media companies have allowed responsibility for content decisions to be dispersed among different teams within each firm. To simplify and consolidate, each company should hire a senior official who reports to the CEO and supervises all efforts to combat disinformation.

Finally, the platforms should cooperate more than they do now to counter disinformation. Purveyors of false content, whether foreign or domestic, tend to operate across multiple platforms. To rid the coming election of as much disinformation as possible, the social media companies ought to emulate collaborative initiatives they **24. have used** to stanch the flow of child pornography and terrorist incitement.

Fair elections **25. depend** on voters **26. making** decisions **27. informed** by facts, not lies and distortions. That’s why the social media companies must do as much as possible to protect users of Instagram and the other popular platforms from disinformation.

## Task 2

### Alleged drug gang thwarted by giant seal in \$1bn Australian drug bust

Australian Associated Press, *The Guardian*, 12 Sept. 2019

<https://www.theguardian.com/australia-news/2019/sep/12/alleged-drug-gang-thwarted-by-giant-seal-in-1bn-australian-drug-bust>

Three more men **1. have been charged** over a massive A\$1bn [\$1 billion Australian dollar] drug haul **2. found** on a tiny island off Western Australia after a yacht ran aground and **3. was abandoned**, sparking a search for its occupants.

Police launched a raid on Burton Island off the port town of Geraldton last week, **4. finding** Frenchman Antoine Dicenta, 51, and British man Graham Palmer, 34, allegedly with 1.087 tonne of methylamphetamine, cocaine and ecstasy in dozens of bags that they **5. had attempted** to hide under seaweed.

They allegedly tried to flee but **6. were thwarted** when a huge seal **7. blocked** their path, police said. The pair **8. were charged** last week with importing a commercial quantity of a border controlled drug.

On Thursday, Jason Dean Lassiter, 45, an American, Scott Felix Jones, 35, another Briton, and Angus Bruce Jackson, 50, from New South Wales, faced Perth magistrates court **9. charged** with conspiring and attempting to possess the drugs with intent to sell or supply.

The Australian was arrested at Perth airport while the other two were arrested in the centre of Perth on Wednesday.

Chris Dawson, Western Australia's police commissioner, said it was alleged that Lassiter, Jones and Jackson were "the shore party".

"They were in another boat and they were ready **10. to receive**," Dawson told ABC radio. "We've disrupted a big international drug syndicate here."

The dramatic drug bust unfolded after the yacht **11. was found 12. stuck** on a reef near Stick Island, which is about 7km from Burton Island in the Abrolhos archipelago.

Authorities **13. were** initially **concerned** that the occupants of the boat were in trouble at sea because a dinghy was missing from the yacht.

As planes searched the area, a crayfisherman saw someone on Burton Island **14. ducking** down in a bid **15. to hide** in low scrub as aircraft flew overhead, Geraldton volunteer marine rescue service vice commander Damien Healy said.

When police arrived, Dicenta and Palmer **16. made** a run for their dinghy but **17. were thwarted** by a huge sleeping seal, Healy told the broadcaster.

“They woke it up and it jumped up with its big chest out and bellowed at them.

“The guys basically had the choice of **18. going** through the seal or **19. getting arrested** and they **20. ended up 21. choosing 22. getting arrested.**”

Dawson had a tip for the pair. “If you’re in a hot pink shirt don’t try and hide in low scrub.”

Dicenta and Palmer faced court in Geraldton last week and **23. will appear** again on 20 September. Lassiter’s next court date is 26 September, Jones **24. is** due on 8 October and Jackson **25. is scheduled** for 21 November.

All five men **26. have been refused** bail and remanded in custody.

### **Task 3**

#### **Denmark frees 32 inmates over flaws in phone geolocation evidence**

Jon Henley, *The Guardian*, 12 Sept. 2019

<https://www.theguardian.com/world/2019/sep/12/denmark-frees-32-inmates-over-flawed-geolocation-revelations>

Denmark **1. has released** 32 prisoners as part of an ongoing review of 10,700 criminal cases after serious questions arose about the reliability of geolocation data **2. obtained** from mobile phone operators, local media **3. have reported**.

Nearly 40 new cases have been postponed under a two-month moratorium on the use of mobile phone records in trials, which **4. was imposed** after police found multiple glitches in the software that converts raw data from phone masts into usable evidence.

Among the errors police have discovered is a tendency for the system to omit some data during the conversion process, meaning only selected calls **5. are registered** and the picture of the phone's location is materially incomplete.

The system has also linked phones to the wrong masts, connected them to several towers at once, sometimes hundreds of kilometres apart, recorded the origins of text messages incorrectly and got the location of specific towers wrong.

Taken together, the problems meant not just that innocent people **6. could** potentially **have been placed** at crime scenes but that criminals **7. could have been** wrongly **excluded** from inquiries, said Jan Reckendorff, Denmark's director of public prosecutions.

"This is a very, very serious issue," he told Denmark's state broadcaster DR. "We simply cannot live with the idea that information that isn't accurate could send people to prison."

Announcing the case review and moratorium late last month, Reckendorff conceded it was a "drastic decision, but necessary in a state of law".

The Danish justice minister, Nick Haekkerup, welcomed the decision, **8. saying** the first priority must always be **9. to avoid** miscarriages of justice. "We shouldn't take the risk that innocent people could be convicted," he said.

Operators **10. insist** the errors **11. have** mostly **stemmed** from the interpretation of their data and they should not **12. be held responsible**. Authorities contend that in some instances the data has also been at fault, but Jakob Willer, of the country's telecoms industry association, said it was not their job to provide evidence.

"We should remember: data **13. is created** to help deliver telecom services, not to control citizens or for surveillance," Willer said. He conceded it could be valuable to police, but insisted its primary purpose was **14. to facilitate** communication between users.



There are no statistics on how many court cases in Denmark **15. are decided** on the basis of mobile phone data, but it is often used to corroborate other evidence and, although not **16. considered** as reliable as DNA, **17. has** previously **been seen** as highly accurate.

Karoline Normann, the head of the Danish law society's criminal law committee, said evidence once considered purely technical was now open to doubt. "Until now, mobile data **18. has had** a high significance and value in courtrooms because this kind of evidence has been considered almost objective," she told Agence-France Presse.

"This situation has changed our mindset about cellphone data. We are probably going to question it as we normally question a witness or other types of evidence, where we consider circumstances like who **19. produced** the evidence, and why and how."

Isolated incidences of clearly inaccurate mobile data have occurred in the past in the US and South Africa, but this is the first time it **20. has been questioned** by a national justice system. Three years ago a Kansas family sued a digital mapping company after **21. being visited** "countless times" by police.

Rather than wait for their case to be examined under the review, Danish prisoners **22. have started 23. demanding** their release on the grounds that their convictions were based on mobile phone evidence.

Not all **24. are** successful. Two members of an Aarhus criminal gang – one of whom insisted he **25. had spent** the night at his parents' home but was placed at a crime scene by mobile phone records – had their appeals turned down this week because other evidence was considered conclusive.

#### **Task 4**

##### **Interview: Will my cat eat my eyeballs? How Caitlin Doughty teaches kids about death**

Marianne Eloise, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/books/2019/sep/12/will-my-cat-eat-my-eyeballs-how-caitlin-doughty-teaches-kids-about-death>

When **1. faced** with the question "what do you want to be when you grow up?", very few kids **2. would answer** "undertaker". Caitlin Doughty, perhaps most famous for her YouTube channel Ask a Mortician, certainly wouldn't have. "I never had any sense of the funeral industry as

anything other than this dark, archaic hole with a man in a suit **3. putting** electric green fluid through a tube into a corpse. It never even occurred to me that I could be a part of it," she says.

But maybe that is about to change. *Will My Cat Eat My Eyeballs?* **4. answers** 35 questions about death, sourced from curious children. From "Will I poop when I die?" to "Can I use bones from a human cremation as jewellery?", it gets down to the morbid questions we all have – asked by children **5. unburdened** by shame. "The kids make it clear that we're not being direct enough in how we talk about death," Doughty says. "I think that a lot of adults never really **6. got** the kind of death education that they need." She **7. compares** the silence about death to the reticence around sex: "My parents weren't necessarily talking about it, but I **9. was watching** porn at my friend's house when I was nine because her older brother had it. There's always **10. going to be** these things **11. slipping** in somehow."

To the uninitiated, Doughty's work, unsurprisingly, sounds a little morbid. She has written two other books about death: her 2014 memoir *Smoke Gets in Your Eyes*, and 2018's *From Here to Eternity*, about death rituals around the world. On her YouTube channel, where you'll find videos including "Can I become mummified?" and "Corpse phallus capers of Rasputin and Napoleon", she's **12. been answering** questions from curious adults for seven years. But lifting the lid on that Pandora's box reveals a very admirable personal aim: **13. to dispel** the west's fear of death.

After attending mortuary school in San Francisco, Doughty, then 22, started working in a crematorium. It was not something she expected to become her life's work. "I kind of thought it would be a cool story to tell at a dinner party when I'm 45," she laughs. But she took to it quickly and found her mission on the way.

"When I started to learn about the commodification of death and the death industry in the western world, I realised we **14. had** something **taken** from us as a culture," she says. For *From Here to Eternity*, she travelled the world to observe different cultures' death rituals; the book is both sensitive and light, and thoroughly researched, written by an author who genuinely wanted to learn from, not **15. fetishise**, other customs. "It's a problem in the US and the UK that we just suck our immigrant cultures up into our cookie-cutter, bland death rituals. Forcing them to leave behind rituals and ways of doing things that are really important to them," she says.

In 2011, Doughty founded The Order of the Good Death, a "death acceptance" collective that **16. aims** to educate people on better ways to handle dying. From there, she started Ask a Mortician to answer people's questions about death. As well as the kookier queries, her videos also include "Helping a Friend Through Grief" and "Overcoming Death Denial in Your Family". She advocates for the family caring for the bodies of loved ones, and **17. has found** that "people instinctively want to be more involved, they just need an expert to say go for it." In

2015 she opened Undertaking LA, an “alternative” funeral home in Los Angeles that focused on being more affordable and getting the family involved (a new branch is about to open).

She **18. has been building** up to *Will My Cat Eat My Eyeballs?* for years, with videos such as “It Gets Better, Morbid Kids!” While the idea might send shivers up some parents’ spines, she says adults shouldn’t shut down children’s questions. “Maybe you’re terrified that something you say is going to set off some deep death fear in them. Say it honestly, tell them ‘If something **19. is bugging** you, or you want **20. to keep 21. talking**, I’m always happy to talk to you about this,’” she says. She wishes more adults **22. would give** children information early on, so that when they inevitably **23. encounter** death, “they’re already used to **24. talking** about it, used to the more fun, interesting, curious parts.” She believes it’s possible, through science and humour, to train the brain “to see death as simultaneously very heavy and a source of great curiosity”.

As a child, Doughty learned about death violently when she saw another child fall in a shopping mall (“a complete aberration”). Afterwards, she developed OCD [obsessive-compulsive disorder] symptoms including tapping and compulsive spitting. “My brain was **25. being invaded** with the knowledge of death and the fact that people could **26. be taken** away from me at any moment and I couldn’t control it. All I could control were these little rituals.”

Like Doughty, my early relationship with death also manifested through OCD. Once I learned that people could be taken away, I **27. started 28. trying 29. to regain** control through repetitive actions. That obsession has only intensified as I’ve got older, but the work of Doughty and other death-acceptance advocates **30. has helped 31. quell** my fears. “I have never gotten a message that said ‘I watched your videos and it made it worse for me. I’m more anxious now, I’m more obsessive compulsive,’” she says. “People don’t necessarily like it when I use the word ‘control’, but I personally like it because I think that’s what happened to me. The feeling of empowering myself **32. to know** the reality. That truth did set me free, in a way, and made me feel better. It still makes me feel better about the fact that we **33. will all die.**”

Not everyone **34. feels** the same. Some people find comfort in denial. Doughty’s humorous and transparent approach can be controversial, with some of her viewers and readers criticising her for not discussing grief enough. But she’s anything but insensitive, and knows better than anyone about the impact of losing someone: “You’re never **35. going to be** the same again. But how can we turn this into something healthy as opposed to something else? Turning grief into healthy grief is not a disservice to the person who died, even if it was someone incredibly close to you. It’s not a disservice **36. to mourn** them in a healthy, open way. You’re never **37. going to get** over it, no matter what, but you remember the experience with a sort of melancholic, whimsical engagement. You can really do the work, or you can just remember it as a source of deep trauma. You’re going to remember it one way or the other – so what **38. is that going to look like?**”

Nobody likes to think about mortality, but if you're going to, there are far worse places to start than Doughty. *Will My Cat Eat My Eyeballs?* is funny, dark, and at times stunningly existential, **39. revealing** not only how little we understand about death, but also how much kids can handle. As to whether or not your cat will eat your eyeballs? You'll just have to read the book to find out.

### **Task 5**

#### **Māori anger as Air New Zealand seeks to trademark 'Kia Ora' logo**

Eleanor Ainge Roy, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/world/2019/sep/12/maori-anger-as-air-new-zealand-seeks-to-trademark-kia-ora-logo>

New Zealand's national carrier, Air New Zealand, **1. has offended** the country's Māori people by attempting to trademark an image of the words "kia ora", the greeting for hello.

The airline applied in May to trademark the image **2. showing** the greeting, which is also the name of its in-flight magazine.

The Intellectual Property Office of New Zealand told TVNZ the airline **3. was seeking** to protect only the "particular stylised forms" of the greeting, rather than the greeting itself, but Indigenous groups said the words **4. belonged** to them, and that the trademark application was a cynical business move.

The Māori Council **5. has said** it would take the airline to court if it goes ahead with the trademark move, and called the application "harebrained" and "an insult to New Zealanders".

It is Māori language week in New Zealand and the council's executive director Matthew Tukaki said Māori people and businesses would boycott the company if the trademark application **6. went** ahead.

"Let's be really clear here. This is an insult pure and simple," Tukaki said in a statement. "I am sick and tired of cultural appropriation and in fact all Māori are – our language is a national treasure for all of us and we need to respect it. It's not here for business to use it and profit from it as they see fit."

“My suggestion is stick to your core business because you sure as hell don’t get to trademark Māori words.”

Intellectual property experts said the trademark was unlikely **7. to be approved** because the language was a common greeting between all races in New Zealand, and **8. used** abundantly by businesses, government institutions and private companies.

The application would also need to pass through the Māori trademarks advisory committee, which provides advice to the commissioner of trade marks.

### **Task 6**

#### **Japan should scrap nuclear reactors after Fukushima, says new environment minister**

Justin McCurry, *The Guardian*, 12 Sep. 2019

<https://www.theguardian.com/world/2019/sep/12/japan-should-scrap-nuclear-reactors-after-fukushima-says-new-environment-minister>

Japan’s new environment minister has called for the country’s nuclear reactors to **1. be scrapped 2. to prevent** a repeat of the Fukushima nuclear disaster.

Shinjiro Koizumi’s comments, **3. made** hours after he became Japan’s third-youngest cabinet minister since the war, could set him on a collision course with Japan’s pro-nuclear prime minister, Shinzo Abe.

“I would like to study how we **4. will scrap** them, not how to retain them,” Koizumi, 38, said. “We will be doomed if we allow another nuclear accident to occur. We never know when we’ll have an earthquake.”

Koizumi faced an immediate challenge from the new trade and industry minister, who said that ridding Japan of nuclear power was “unrealistic”.

“There are risks and fears about nuclear power,” Isshu Sugawara told reporters. “But ‘zero-nukes’ is, at the moment and in the future, not realistic.”

Japan's government **5. wants** nuclear power to comprise 20% to 22% of the overall energy mix by 2030, drawing criticism from campaigners who **6. say** nuclear plants **7. will** always **pose** a danger given the country's vulnerability to large earthquakes and tsunamis.

Abe, however, **8. has called** for reactors **9. to be restarted**, arguing that nuclear energy **10. will help** Japan **achieve** its carbon dioxide emissions targets and reduce its dependence on imported gas and oil.

All of Japan's 54 reactors **11. were shut down** after a giant tsunami caused a triple meltdown at the Fukushima Daiichi nuclear power plant in March 2011.

Nuclear power accounted for about 30% of Japan's energy production before the disaster. Today, just nine reactors are back in operation, having passed stringent safety checks introduced after the Fukushima meltdown.

But the government is unlikely to meet its target of 30 reactor restarts by 2030 amid strong local opposition and legal challenges.

Although he **12. faces** potential opposition from inside the cabinet, Koizumi should at least receive the backing of his father, Junichiro Koizumi, a former prime minister who has emerged as a vocal opponent of nuclear power.

While Japan debates the future of nuclear energy, the younger Koizumi, who **13. has been tipped** as a future prime minister, is now at the centre of a controversy over the future of more than a million tonnes of contaminated water stored at Fukushima Daiichi.

On Tuesday, his predecessor as environment minister said the plant's operator, Tokyo Electric Power, had no choice but **14. to dilute** the water and release it into the Pacific ocean rather than store it indefinitely.

The prospect of dumping the water into the sea **15. has angered** local fishermen and drawn protests from neighbouring South Korea.

## Task 7

### Scientists use IVF procedures to help save near-extinct rhinos

Ian Sample, *The Guardian*, 11 Sep. 2019

<https://www.theguardian.com/environment/2019/sep/11/scientists-use-ivf-procedures-to-help-save-near-extinct-rhinos>

Scientists have successfully created two embryos of the near-extinct northern white rhino in a landmark effort to save the species.

The international team of researchers and conservationists drew on IVF [in vitro fertilization] procedures to create the embryos from fresh eggs **1. collected** from the two remaining female rhinos and frozen sperm from dead males.

The achievement, announced at a press conference in Italy on Wednesday, **2. paves** the way for specialists to transfer the embryos into a surrogate mother – a southern white rhino – in the near future.

“Today we achieved an important milestone on a rocky road which **3. allows** us to plan the future steps in the rescue programme of the northern white rhino,” said Thomas Hildebrandt, head of the BioRescue project at Leibniz Institute for Zoo and Wildlife Research.

The embryos were created at Avantea Laboratories in Cremona, Italy, and **4. will be stored** in liquid nitrogen until the team is ready to transfer them to the surrogate mother.

Northern white rhinos **5. have been** in decline for decades. By 2018 the population **6. had dwindled** to two remaining females, Najin and Fatu at Ol Pejeta Conservancy in Kenya, who are the last of their kind in the world.

Cesare Galli said his team **7. collected** five immature eggs from each female which were airlifted to the Italian laboratory. There, the eggs were incubated to provide three mature eggs for Najin and four for Fatu.

The scientists then used a common IVF procedure called intracytoplasmic sperm injection, or ICSI, **8. to fertilise** the eggs. Fatu’s **9. were injected** with thawed out sperm taken from a dead male called Suni, while Najin’s eggs were fertilised with poorer quality sperm collected from a

male called Saut. After 10 days of incubation, two of Fatu's eggs developed into viable embryos, but none of Najin's made it.

"Five years ago, it seemed like the production of a northern white rhino embryo was an almost unachievable goal, and today we have them," said Jan Stejskal at Dvůr Králové Zoo in the Czech Republic, where Najin and Fatu were born.

The last of the male northern white rhinos was 45-year-old named Sudan who rose to fame in 2017 when a fundraising effort listed him on the Tinder dating app as "The Most Eligible Bachelor in the World". He was put down in March last year for health reasons **10. brought on** by old age.

The dramatic decline of the northern white rhinos **11. was driven** by poaching. Sudan was the last known male to be born in the wild, in the country from which he got his name. The southern white rhino and the black rhino **12. are** also **targeted** by poachers, who **13. kill** them for their horns to supply illegal markets in parts of Asia.

About 21,000 southern white rhinos still exist and females **14. will be used** as surrogate mothers in the effort to save the northern species. Scientists hope that the first northern white rhino will be born from an IVF embryo in the next two years.

Even if healthy northern white rhino calfs are born from the IVF embryos, conservationists **15. will** still **face** an enormous challenge in the lack of genetic diversity in the population. One way to broaden the animals' gene pool is to create eggs from rhino skin cells stored around the world, but the technology may not be available for another decade.

"This is a major step forward in our efforts to recover the northern white rhinos," said Richard Vigne, managing director of Ol Pejeta Conservancy. "We have a very long way to go and we must remember that, for most species facing extinction, the resources that are being dedicated to saving the northern whites simply don't exist. Global human behaviour still needs to radically change if the lessons of the northern white rhinos **16. are 17. to be learned.**"



## Task 8

### Behind India's construction boom, a world of 'systematic slavery'

Paul Salopek, *National Geographic*, Sept. 11, 2019

<https://www.nationalgeographic.com/culture/2019/09/behind-india-construction-boom-brick-making-systematic-slavery/>

The ABC Brick Company, located near the steamy banks of Brahmaputra River in the northeastern state of Assam, **1. is** much like any of the estimated 200,000 other brickmaking kilns operating in India. And contract laborer Shazima Kathum, 24, **2. shares** the same fate as roughly 12 million other workers toiling in such dusty brickyards.

A small, thin, sharp-featured woman, Kathum looks older than her years.

Her parents, also brickmakers, **3. were forced 4. to sell** their tiny plot of farmland because their fields **5. could** no longer **feed** the family. They also needed cash to build a house to accommodate six daughters. So Kathum abandoned school at age 14. And she **6. has toiled** ever since under the smokestacks of various brick companies. For five months of dry weather each year, **7. jogging** beneath a molten white sun, she lugs about 40 pounds—or about eight to 10 unfired bricks—atop her head. A human forklift, she covers several miles a day racing to and from the firing pits. Her sweat turns the thick coating of dust on her face into mud.

"I make 136 rupees per 1,000 bricks," she says, citing daily earnings that add up to less than two dollars. "At first my back really hurt. But you just **8. get used to it.**"

India is the world's second largest brick producer after China. **9. To feed** a decade-long construction boom in its exploding megacities, multiplying call centers, and new industrial parks, it bakes a staggering 250 billion bricks a year.

But for a much longer time, an immense army of Indian brickmakers **10. have served** as global poster children for exploitative labor practices.

**11. Protected** in theory by minimum wage laws, anti-child labor rules, and regulations **12. prohibiting** bonded labor, millions of men, women, and children still endure conditions that one human rights group calls "systematic slavery." Many laborers **13. are locked** into their backbreaking work by debts to dodgy labor brokers, who **14. charge** exorbitant fees to secure the jobs. A recent medical survey **15. found** that nearly half the nation's brick workers **16. were** underweight. More than half were anemic.

At the brickyard outside Dhubri, most of the loaders carting raw bricks to the kilns were women. They **17. sang** as they **18. balanced** their heavy burdens down wooden gangways into the earthen furnaces.

"I **19. am paying** my sister's school fees," Kathum said of a younger sibling in the sixth grade. "I don't ever want her to do this."

Then she **20. hustled** off for another payload of bricks.

### **Task 9**

#### **New 'smart' skin changes color using a trick learned from chameleons**

Carrie Arnold, *National Geographic*, Sept. 11, 2019

<https://www.nationalgeographic.com/animals/2019/09/chameleon-inspired-smart-skin-changes-color/>

Chameleons make changing color look easy. In just a few moments, these lizards can shift the hue of their skin to intimidate predators, camouflage themselves, or find mates. Scientists **1. have spent** decades unraveling the chameleon's color-changing secrets in the lab, and their years of work have yielded a new smart skin that **2. changes** color when exposed to the sun.

"This is something nature does all the time," says Khalid Salaita, a bioengineer at Emory University and senior author of the new paper published September 11 in *ACS Nano*. "And we **3. can trigger** color change using direct sunlight."

The material **4. could be used 5. to make** everything from camouflage clothing and coatings to chemical and environmental sensors.

Biochemist Leila Deravi of Northeastern University, who wasn't involved in the study, **6. says** that this new smart skin **7. has overcome** a "major problem for engineers" by figuring out how to elicit a color change without **8. altering** the volume of a polymer.

Long before Harry Potter donned his invisibility cloak, animals from all walks of life have been manipulating their own color for a variety of reasons. This ability **9. evolved** several times

independently in reptiles, neon tetra fish, butterflies, and in cephalopods like octopus and squid.

The skin cells of these animals **10. contain** tiny crystals crammed together that are called photonic crystals. Unlike pigments, which have an intrinsic hue, these crystals reflect and scatter light differently based on their size, chemical makeup, and arrangement—creating color.

Researchers discovered in a 2015 *Nature Communications* paper that chameleon skin cells **11. have** guanine crystals interspersed with ‘regular’ skin cells. To change colors, the lizards **12. can compress** or flex their crystal-containing cells, causing different wavelengths of light to be reflected—and meanwhile, the normal skin cells can expand or shrink **13. to fill** in any gaps.

To build a color-changing smart skin in the lab, scientists **14. have** typically **embedded** photonic crystals in a jelly-like polymer. Yixiao Dong, first author of the new study and a doctoral student in Salaita’s lab, suggested tweaking this formula by creating a hydrogel with two layers, just like the chameleon skin.

“It **15. sounded** like the perfect solution,” Salaita says.

The team created a small, thin flexible structure, not unlike a silicone bracelet, that contained one layer **16. embedded** with photonic crystals of iron oxide mixed with silicon dioxide. At a chemical level, “it **17. is** basically a rust core with a sand shell,” Salaita says. The other contained a colorless polymer.

They then exposed the skin to sunlight and light from lasers. This is unique from other previous attempts at smart skin, which **18. are** typically **triggered** with high voltage electric current.

In one experiment, Dong shaped a yellow smart skin into a leaf. After five minutes in the sun, the leaf **19. had turned** green, which **20. made** it **21. blend** into a group of leaves he **22. had snipped** from a tree outside the lab, demonstrating the smart skin’s camouflage potential. He performed a similar color change with a fish-shaped polymer. Dong and Salaita then created even faster shifts using a laser light.

“It’s a clever way to get color changes with light,” Deravi says. She calls the work a good first step but says that it will be a long time until smart skins are ready for commercial use.

One of the biggest challenges **23. will be 24. making** smart skins large enough for clothing, panels, and other human uses. Salaita also points out that animals have far better control over their color shifts and can create more dramatic changes than human-made materials.

### **Task 10**

#### **The 4 Things That Will Hurt Your Relationship the Most**

April Eldemire, *Psychology Today*, Sept. 10, 2019

<https://www.psychologytoday.com/intl/blog/couples-thrive/201909/the-4-things-will-hurt-your-relationship-the-most>

Every relationship has its conflicts and communication issues, but not all relationship problems **1. are created** equal. Research from esteemed psychologist and relationship expert John Gottman **2. reveals** at least four characteristics which tend to spell serious trouble for intimate partners. So damaging **3. are** their effects that together they **4. have earned** an ominous nickname: The Four Horsemen. But while the New Testament's version of The Four Horsemen represents the end of times, these horsemen **5. do not** even necessarily **have to 6. lead to** the end of a relationship—not when couples learn how to identify these characteristics and replace them with healthier ones.

**CRITICISM.** This is different from constructive feedback and complaints—both of which, while potentially perceived as “negative,” can be legitimate ways to express concerns over a specific issue or situation.

Harmful criticism rests on absolutes and questions a person's entire character, rather than a specific trait or behavior. Statements such as “You're always late” or “You're so selfish and you never listen to me” are good examples of unhealthy criticism. Instead of **7. acknowledging** a specific concern (e.g., “I feel frustrated when you show up late”), an overly critical partner **8. will put down** their loved one in an ill-suited attempt to express their frustration.

If criticisms continue unabated, the recipient may begin to feel hurt, rejected, and under attack. Unfortunately, this can pave the way for the other Horsemen to enter the relationship.

**CONTEMPT.** Contempt is the darker side of criticism. Beyond merely putting a person down, the contemptuous partner **9. assumes** moral superiority over them. They feel “better than” their partner and attempt to make him or her feel worthless. Cruel and unloving sarcasm, ridicule, and mean-spirited language (verbal and non-verbal) **10. will be** prevalent.

Contempt doesn't only hurt a person emotionally. Research shows that couples that experience contempt are more likely to become ill. This **11. is likely related** to the fact that chronic stress—often brought about by a toxic and unhealthy relationship—weakens the immune system.

**DEFENSIVENESS. 12. Being** criticized again and again often causes a partner to feel and act defensively. He or she may come up with excuses in an attempt to explain away what their partner **13. is accusing them of**, rather than assuming personal responsibility or trying to see things from their partner's perspective.

While understandable, defensiveness isn't an effective conflict resolution strategy. Defensiveness can fuel feelings of contempt and resentment, and often leads to a back-and-forth blame game that **14. is** unproductive, destructive, and stressful.

**STONEWALLING.** The last of The Four Horsemen is essentially a diversion tactic. One or both partners—usually in response to overwhelming negativity created by the three other Horsemen—withdraws, shuts down, and stops interacting or communicating. Instead of confronting the issue or seeking help, a stonewalling person simply evades the situation, often by walking away, tuning out, acting busy, or engaging in obsessive or repetitive behaviors.

The first step in eliminating The Four Horsemen from a relationship **15. is 16. becoming** aware of their presence. Couples must learn to recognize these traits when they show up; working with a licensed marriage counselor or other mental health professional can help.

The next step is to replace these negative traits with positive ones. These include:

- Discussing concerns or complaints using "I statements."
- Regularly expressing gratitude and appreciation.
- Taking personal responsibility and offering genuine apologies when indicated.
- Taking breaks when feeling stressed or overwhelmed.

## Task 11

### Fugitive Couple Accused Of Murder Are Caught After Weeks On The Run

Brakkton Booker, *National Public Radio News*, Sept. 12, 2019

<https://www.npr.org/2019/09/12/760148163/fugitive-couple-accused-of-murder-are-caught-after-weeks-on-the-run>

Husband-and-wife murder suspects who **1. overpowered** their guards as they **2. were being extradited** from New York to Arizona and then **3. managed** to elude the law for weeks **4. have** finally **run** out of road.

Blane Barksdale, 56 and his wife, Susan, 59, **5. were taken** into custody Wednesday evening. The Navajo County (Ariz.) Sheriff's Office **6. said** on Facebook that it **7. assisted** the U.S. Marshals Service and that the Barksdales **8. were apprehended** "without incident."

The couple escaped custody on Aug. 26 en route to Arizona, where they **9. face** charges including first-degree murder in connection with the death of a 72-year-old Arizona man.

The Marshals Service **10. says** the couple "overpowered and kidnapped" two security officers and another prisoner near Blanding, Utah, about 50 miles from the Utah-Arizona border. Blane Barksdale is 6-foot-5 and weighs about 260 pounds, while Susan Barksdale is 5-foot-7 and 120 pounds.

The couple drove the prison transport vehicle to Vernon, Ariz., where they got a pickup truck **11. provided** by an acquaintance, according to officials. Then they "abandoned the locked prison van with the three occupants inside."

They **12. were spotted** driving a red GMC Sierra truck with an Arizona license plate before they seemingly vanished.

On Monday, the Marshals Service sent an alert **13. saying** the search for the couple **14. had "intensified"** and that Blane Barksdale **15. had been added** to its 15 Most Wanted List. The Marshals offered a reward of up to \$25,000 for information leading directly to his arrest. A reward for up to \$10,000 **16. was offered** for information on Susan Barksdale.

The Barksdales **17. are suspected** of killing a man named Frank Bligh in Tucson, Ariz. Marshals **18. say** Bligh **19. has been** missing since his home burned down April 16. Investigators

determined the fire **20. was set** intentionally and discovered that more than 100 firearms **21. had been stolen** from the residence.

Evidence prompted authorities **22. to issue** homicide arrest warrants for the couple.

They also **23. are facing** charges of first-degree burglary, arson of an occupied structure, criminal damage and auto theft.

### **Task 12**

#### **Clinic Ordered To Reveal Sperm Donor List After Baby Mix Up**

Vanessa Romo, *National Public Radio News*, Sept. 11, 2019

<https://www.npr.org/2019/09/11/759975966/clinic-ordered-to-reveal-sperm-donor-list-after-baby-mix-up>

The New Jersey couple **1. tried and tried** to have a baby.

When they were unable **2. to conceive** on their own, Kristina Koedderich and Drew Wasilewski opted for artificial insemination through IVF, or in vitro fertilization. In 2013, after **3. spending** nearly \$500,000, the procedure **4. helped** them **realize** their parenting goals with the arrival of a baby girl.

But when the child was about two years old, the couple, who are white, **5. began 6. noticing** changes in her features. She looked Asian. A DNA test later **7. revealed** Wasilewski was not her biological parent, according to a **8. filed** lawsuit against the clinic.

Court documents **9. say** somewhere along the way the Institute for Reproductive Medicine and Science in Livingston, N.J., made a horrific mistake, **10. impregnating** Koedderich with the sperm of someone who **11. was** not her husband.

"It **12. has been** devastating for them," the now-divorced couple's attorney, David Mazie, of Mazie, Slater, Katz & Freeman, told NPR.

"**13. To go** through all the shots, all of the treatments, **14. spend** all of that money, and **15. be** lucky enough **17. to have** a child but then **18. find out** it's not 100% your child ... it's inexcusable. It should never happen," Mazie said.

The institute **19. did not** immediately **respond** to a request for comment.

Koedderich and Wasilewski say the clinic's negligence caused "the breakdown of the marriage." They **20. are suing** the clinic for unspecified damages.

"They also want to know what happened to Drew's sperm. They took it and it **21. was defrosted**. If they didn't use it for this procedure they **22. must have used** it in some other procedure," Mazie said.

To find out the answer to that question, Superior Court Judge Keith Lynott ordered the clinic **23. to hand over** a list of all of the men and women who used the facility around the same time as Wasilewski and Koedderich.

"If he has children, he wants to know. He wants to meet them," Mazie said.

The attorney added that his clients also want to know the identity of their child's biological father to learn more about her genetic history. According to the filing, the girl, who is now six, **24. inherited** a genetic blood disorder associated with Southeast Asian heritage.

When she is older, the girl may also want to develop a relationship with her biological parent "and she has a right to that," Mazie added.



### Task 13

#### Apple Launches Video-Streaming Service For \$4.99 A Month

Avie Schneider, *National Public Radio News*, Sept. 10, 2019

<https://www.npr.org/2019/09/10/759500972/apple-launches-video-streaming-service-for-4-99-a-month>

Apple **1. is entering** the video-streaming race, **2. taking on** Netflix, Amazon, Disney and others with a monthly subscription of \$4.99. The company also **3. announced** three new iPhones, even as their sales **4. have been slowing**.

The new Apple TV+ service **5. had been** previously **announced**, but on Tuesday the company **6. revealed** the low price and the launch date, Nov. 1, with nine original titles, including *The Morning Show with Reese Witherspoon and Jennifer Aniston*.

Apple **7. said** it **8. will offer** one year for free to customers who **9. buy** a new iPhone, iPad, Apple TV, Mac or iPod Touch. An Apple TV+ subscription **10. can be shared** with up to six family members.

Apple's new service costs considerably less than Netflix, which has a standard subscription of \$8.99 per month. The Disney+ service **11. debuts** Nov. 12 at \$6.99 per month.

As **12. expected**, Apple also **13. unveiled** its new iPhone 11, which will start at \$699, and the iPhone 11 Pro and the iPhone 11 Pro Max, starting at \$999 and \$1,099, respectively. All three phones **14. will feature** **15. improved** cameras and higher video capabilities.

Along with the new streaming service, Tuesday's announcements, which included a \$4.99 monthly cost for the new Apple Arcade gaming service, **16. represent** a continuing shift in the importance of services to Apple's bottom line.

For years, the iPhone **17. represented** the majority of Apple's sales, but the company **18. has seen** its numbers drop. In Apple's fiscal third quarter, which ended June 29, iPhone sales made up less than half of Apple's revenues — down from 63% four years ago. China isn't just where iPhones are made; it's also one of the top markets for the device. But amid China's economic slowdown, Apple's sales in China, Taiwan and Hong Kong fell 19% in Apple's third quarter from a year earlier.

## Task 14

### Hurricane Dorian Unearths Civil War Cannonballs at South Carolina Beach

Meilan Solly, Smithsonian.com, Sept. 10, 2019

<https://www.smithsonianmag.com/smart-news/hurricane-dorian-unearths-civil-war-cannonballs-south-carolina-beach-180973095/>

In recent years, hurricanes **1. have unearthed** an array of unexpected finds: among others, a dugout canoe **2. believed 3. to be** more than 100 years old, the remains of a 19th-century historic fort and a World War II-era gun mount. Now, Hurricane Dorian has added another discovery to the list. As Lillian Donahue **4. reports** for local news station WCSC, a couple **5. exploring** the shores of South Carolina’s Folly Beach in the aftermath of last week’s destructive storm **6. chanced upon** a pair of Civil War cannonballs **7. buried** near a pile of brush.

“At first, we just thought it was a rock,” Aaron Lattin, a South Carolinian who found the artillery with his girlfriend Alba, explains to WCSC. “[But] the more we **8. got to 9. looking**, we realized it was something more than a rock.”

According to Donahue, the duo visited the beach in search of artifacts **10. washed** ashore during the hurricane. Lattin originally hoped to scour the area with a metal detector, but they discovered the 8-inch cannonball and a smaller 3-inch shell without the aid of any treasure-hunting tools: “We actually just got lucky with no equipment,” he adds, “just **11. spending** a day at the beach.”

Andrew Gilreath, head of the Folly Beach Department of Public Safety, **12. tells** CNN’s David Williams that authorities **13. blocked off** the area where the objects **14. were found** until explosive ordnance disposal experts from the Charleston County Sheriff’s Office and the U.S. Air Force **15. arrived 16. to assess** the situation. Although the team deemed the cannonballs safe, Gilreath says the experts **17. will** probably **destroy** them to avoid the possibility of future accidents.

As Laura Geggel **18. reported** for *Live Science* in 2016, centuries-old cannonballs still **19. pose** a significant safety threat. Some are simply large steel projectiles, but others are live explosives liable **20. to detonate** if **21. handled**. In 2008, for example, hobbyist Sam White, 53, **22. was restoring** a 75-pound cannonball when it **23. exploded, 24. killing** him and **25. sending** shrapnel **26. flying** into his neighbor’s porch.

Lattin's find actually **27. represents** the second set of Civil War cannonballs **28. found** at Folly Beach over the past several years. In October 2016, Hurricane Matthew unearthed a trove of 16 cannonballs at the South Carolina site; as Gilreath told Geggel at the time, authorities' hopes of displaying the weapons **29. were thwarted** by the realization that a "large number of them were explosive cannonballs, and thus contained old and very unstable gunpowder." Ultimately, explosive experts **30. destroyed** the majority of the artifacts.

According to the City of Folly Beach website, Union soldiers **31. seized** control of the island in 1863, **32. building** roads, forts, an artillery battery and a supply depot sizable enough **33. to support** 13,000 troops.

Given the region's close ties to the Civil War, Gilreath says the cannonball finds are not wholly uncommon.

"This is something that **34. has happened** every couple of years since I **35. have been** here, at least," Gilreath tells CNN's Williams. "We **36. will have** some erosion on the beach, and something **37. will get uncovered.**"

### **Task 15**

#### **New Evidence That Grandmothers Were Crucial for Human Evolution**

Joseph Stromberg, Smithsonian.com, Oct. 23, 2012

<https://www.smithsonianmag.com/science-nature/new-evidence-that-grandmothers-were-crucial-for-human-evolution-88972191/>

For years, anthropologists and evolutionary biologists **1. have struggled 2. to explain** the existence of menopause, a life stage that humans do not share with our primate relatives. Why **3. would it be** beneficial for females to stop **4. being able to** have children with decades still left **5. to live?**

According to a study **6. published** today in the journal *Proceedings of the Royal Society B*, the answer is grandmothers. "Grandmothering was the initial step toward **7. making** us who we **8. are,**" **9. says** senior author Kristen Hawkes, an anthropologist at the University of Utah. In 1997 Hawkes proposed the "grandmother hypothesis," a theory that **10. explains** menopause by **11. citing** the under-appreciated evolutionary value of grandmothering. Hawkes says that grandmothering **12. helped** us to develop "a whole array of social capacities that **13. are** then the foundation for the evolution of other distinctly human traits, including pair bonding, bigger brains, learning new skills and our tendency for cooperation."

The new study, which Hawkes **14. conducted** with mathematical biologist Peter Kim of the University of Sydney and Utah anthropologist James Coxworth, **15. uses** computer simulations to provide mathematical evidence for the grandmother hypothesis. **16. To test** the strength of the idea, the researchers simulated what **17. would happen** to the lifespan of a hypothetical primate species if they **18. introduced** menopause and grandmothers as part of the social structure.

In the real world, female chimpanzees typically **19. live** about 35 to 45 years in the wild and rarely **20. survive** past their child-bearing years. In the simulation, the researchers replicated this, but they gave 1 percent of the female population a genetic predisposition for human-like life spans and menopause. Over the course of some 60,000 years, the hypothetical primate species **21. evolved** the ability **22. to live** decades past their child-bearing years, surviving into their sixties and seventies, and eventually 43 percent of the adult female population were grandmothers.

How **23. would** grandmothers **help** us live longer? According to the hypothesis, grandmothers **24. can help collect** food and feed children before they are able to feed themselves, enabling mothers **25. to have** more children. Without grandmothers present, if a mother **26. gives birth** and already **27. has** a two-year-old child, the odds of that child surviving **28. are** much lower, because unlike other primates, humans aren't able to feed and take care of themselves immediately after weaning. The mother **29. must devote** her time and attention to the new infant at the expense of the older child. But grandmothers **30. can solve** this problem by acting as supplementary caregivers.

In the hypothesis—and in the computer simulation—the few ancestral females who **31. were** initially **able to live** to postmenopausal ages increased the odds of their grandchildren surviving. As a result, these longer-lived females were disproportionately likely to pass on their genes that **32. favored** longevity, so over the course of thousands of generations, the species as a whole evolved longer lifespans.

But why **33. would** females **evolve 34. to** only **ovulate** for 40 or so years into these longer lives? Hawkes and other advocates of the hypothesis note that, without menopause, older women **35. would** simply **continue** to mother children, instead of acting as grandmothers. All children **36. would** still **be** entirely dependent on their mothers for survival, so once older mothers **37. died**, many young offspring **38. would** likely **die** too. From an evolutionary perspective, it **39. makes** more sense for older females to increase the group's overall offspring survival rate instead of spending more energy on producing their own.

Hawkes goes one step further, arguing that the social relations that go along with grandmothering **40. could have contributed** to the larger brains and other traits that **41. distinguish** humans. “If you are a chimpanzee, gorilla or orangutan baby, your mom **42. is thinking** about nothing but you,” she says. “But if you are a human baby, your mom has other kids she **43. is worrying** about, and that **44. means** now there is selection on you—which was not on any other apes—to much more actively engage her: ‘Mom! Pay attention to me!’”

As a result, she says, “Grandmothering gave us the kind of upbringing that made us more dependent on each other socially and prone to engage each other’s attention.” This trend, Hawkes says, drove the increase in brain size, along with longer lifespans and menopause.

The theory is by no means definitive, but the new mathematical evidence serves as another crucial piece of support for it. This **45. could help** anthropologists better understand human evolution—and should give you another reason **46. to go** thank your grandmother.

### **Task 16**

#### **Prehistoric Farmers’ Teeth Show Humans Were Drinking Animal Milk 6,000 Years Ago**

Meilan Solly, Smithsonian.com, Sept. 11, 2019

<https://www.smithsonianmag.com/smart-news/prehistoric-farmers-teeth-show-humans-were-drinking-animal-milk-6000-years-ago-180973101/>

A new analysis of Neolithic farmers’ dental plaque **1. suggests** milk **2. has been** a staple in humans’ diets for millennia. As researchers **3. led** by Sophy Charlton of England’s University of York **4. report** in the journal *Archaeological and Anthropological Sciences*, traces of beta lactoglobulin—a protein present in cow, sheep and goat milk—**5. entombed** in prehistoric Britons’ plaque **6. represent** the earliest direct evidence of milk consumption **7. found** to date.

According to *Atlas Obscura*’s Anne Ewbank, Charlton and her colleagues tested ten sets of teeth **8. unearthed** at three Neolithic sites across southern England: Hambledon Hill, Hazleton North and Banbury Lane. Using mass spectrometry analysis, the team identified peptides from the beta lactoglobulin protein in seven of these individuals’ calcified plaque. Although the exact type of milk consumed at each settlement remains unclear, certain peptides point toward Hambledon Hill’s predilection for goat milk and Hazleton North’s preference for cow or sheep milk. According to the study, however, zooarchaeological evidence **9. recovered** at the sites remains “most consistent” with cattle milk.

“The fact that we found this protein in the dental calculus of individuals from three different Neolithic sites **10. may suggest** that dairy consumption was a widespread dietary practice in the past,” Charlton **11. says** in a press release.

Crucially, Paul Rincon **12. writes** for *BBC News*, the majority of Neolithic Europeans—including the British farmers **13. featured** in the study—were lactose intolerant, **14. making** it difficult for them to drink milk without **15. experiencing** unpleasant side effects. The ability to break down lactose sugar in milk is a relatively modern one: As the study **16. notes**, just 5 to 10 percent of Europeans **17. possessed** the genetic mutation responsible for this process by the Bronze Age, which lasted from around 3,000 to 1,000 B.C. (In Britain, the preceding Neolithic period **18. ran** from 4,000 to 2,400 B.C. and saw the rise of such practices as farming, animal domestication and monument building.)

To cope with their lactose intolerance, early Britons **19. may have imbibed** small amounts of milk at a time or, in a more plausible scenario, **20. (processed** the drink to reduce its lactose content. “If you **21. process** [milk] into a cheese, or a fermented milk product, or a yogurt, then it **22. Does decrease** the lactose content so you [can] more easily digest it,” Charlton tells *BBC News*.

Dairy fats and milk residue **23. discovered** in Neolithic pottery across the European continent **24. support** this theory, offering evidence of heating and other forms of milk product processing. At Hambledon Hill specifically, the archaeologists **25 write** in the study, more than a quarter of pottery fragments **26. recovered 27. held** traces of milk lipids.

Prior research **28. has (pinpointed** the origins of milk consumption to thousands of years before these British farmers arrived on the scene. In 2016, for example, a study published in the *Proceedings of the National Academy of Sciences* **29. drew on** prehistoric pottery **30. discovered** in the northern Mediterranean **31. to posit** that the practice started as early as 9,000 years ago. Still, *Atlas Obscura’s* Ewbank **32. explains**, the new analysis is the first **33. To draw on** human remains **34. to directly date** milk consumption to the Neolithic period.

Moving forward, the researchers **35. hope** to assess whether members of prehistoric societies “consumed differential amounts of dairy products or dairy from different animals” on the basis of sex, gender, age or social standing. Additionally, Charlton says in the statement, “Identifying more ancient individuals with evidence of [the milk protein] in the future may ... increase our understanding of how genetics and culture **36. have interacted** to produce lactase persistence.”

## Task 17

### A Brief History of the Waffle Iron

David Kindy, Smithsonian.com, Aug. 23, 2019

<https://www.smithsonianmag.com/innovation/brief-history-waffle-iron-180972980/>

There's no waffling about waffles: people love them! **1. Covered** in syrup, **2. filled** with fruit, **3. piled** high with ice cream or **4. served** with fried chicken, Americans love waffles. The Waffle House alone, founded in 1955, **5. sells** approximately 145 waffles every minute of every day at its 2,100 restaurants in 25 states.

**6. Thank** goodness for the waffle iron. The modern version of this ancient kitchen utensil **7. was invented** by Cornelius Swartwout 150 years ago. He created a stove-top version of the waffle iron that was easy to turn and less likely to burn the hand of the cook.

In fact, we **8. celebrate** Swartwout's invention every August 24 on National Waffle Day, a commemoration that **9. coincides** with the date his patent **10. was issued** by the U.S. Patent and Trademark Office in 1869.

Waffle irons **11. have been around** for a long time. The ancient Greeks had a version that they used to make wafers similar to today's waffles. Medieval Europeans also used them to cook early waffles. However, these devices mostly consisted of two iron plates with wooden handles. Users **12. held** them over an open fire or on the hearth and **13. tried** not to burn the waffles—or themselves.

Yve Colby, a museum technician at the Smithsonian's National Museum of American History, researched the product for nearly two years while working on the Domestic Life Collection, which **14. has** at least 50 waffle irons **15. dating** back more than 300 years.

"It's a complicated history," Colby says. "Waffle irons date back a long way. Our collection includes wafer irons from the early 18th century to an electric waffle iron made in 1984."

In the early days of waffle irons, the plates often included delicate designs, almost like etchings, that left imprints on the waffle. As time progressed, and people began to include tasty toppings, the waffle iron began to take on more of the grid shape we know today, which **16. left** gaps in the cooked product to hold syrup, fruit and other stomach-pleasing treats.

Trouble was, the old waffle irons were hard to handle. They were heavy and cumbersome, and the user often **17. got burned**. The wooden handles tended to **18. get scorched**, as **19. did** the waffle since it **20. couldn't really be checked** to see if it **21. was** cooked.

That's when Swartwout saved the day. He developed the first waffle iron that **22. would sit** easily on a wood stove and included a useful handle for **23. opening, 24. closing and 25. turning** the device without **26. getting burned**. Described as an "Improvement in Waffle-Irons," his invention received U.S. Patent No. 94,043, which **27. was assigned** to himself, Joseph Foxell, Thomas Jones and Edward W. Millard, all of Troy, New York.

In the patent, Swartwout provided the following description:

*"The nature of my invention **28. consists in**<sup>2</sup> providing a handle, **29. connected** with and **30. forming** part of a waffle-iron, by means of which the same **31. may be** readily **turned over** without danger of **32. slipping**, and without the possibility of burning the hand.*

*It also consists in **33. providing** a device, by means of which the upper or covering portion of a waffle-iron **34. may be raised**, so as **35. to expose** the interior, for **36. filling** or for **37. removing** the waffle when **38. done**, without danger of the cover slipping back, and without burning the hand."*

Obviously, Swartwout wanted to minimize the chances of singeing the skin. The inventor's ancestry was Dutch, which was one of the formative cultures in the 14th century that **39. kicked off** the early waffle craze. More than likely, he witnessed family members **40. getting burned** as they tried to cook waffles with the old iron plates.

Swartwout's device became quite popular and **41. spread** quickly around the country. Websites today are loaded with antique waffle irons, dating from 1869 through the early 20th century, when electric models were first introduced. General Electric actually developed a prototype of the first electric waffle iron in 1911, but didn't begin production until seven years later.

The waffle iron **42. has been** a source of gastronomic pleasure for multiple generations. From sweet and syrupy to sumptuous and savory, this invention **43. has sated** appetites for breakfast, lunch, dinner and even midnight snacks.

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<sup>2</sup> Editor's note from Kirsten Dyck: while some people still use the phrase "to consist in," this is mostly an archaic literary construction now. In contemporary English usage, especially in North America, "to consist of" is a more common way to express the idea that something contains several specific parts.



It was also responsible for another innovative concept that left an important footprint on modern culture: the athletic shoe. In 1972, University of Oregon track coach Bill Bowerman applied for a patent for a new kind of sports footwear that featured shaped rubber studs on the sole to provide better traction. The inventor used his wife's waffle iron to create the patterned grips on the bottom of the shoe. Bowerman, who later founded Nike, was off and running.

"We actually have the original Nike Waffle Shoe on display at the National Museum of American History," Colby says.

Visitors can ooh and aah over the trainers—part of the museum's "American Enterprise" exhibition. But, for this product, **44. hold** the syrup.

### **Task 18**

#### **Why Killer Whales Belong in the Ocean, Not SeaWorld**

Jerry Adler, *Smithsonian Magazine*, March 2015

<https://www.smithsonianmag.com/arts-culture/why-killer-whales-belong-in-the-ocean-not-seaworld-180954333/>

He **1. is** a whistle-blower who **2. carried** an actual whistle, which he wore around his neck during his 12 years as a trainer of killer whales at SeaWorld theme parks. The whistle, **3. intended** to get the attention of the 8,000-pound animals **4. swimming** around in the tank, saved his life on occasion, but it easily **5. could have cost** him his life if a whale **6. had grabbed** it to pull him into the water. As a precaution, John Hargrove writes in a new book, *Beneath the Surface*, the lanyard had a breakaway ring—and thus served as a “kind of rosary, a subtle reminder of how suddenly the hour of death **7. may come** upon you when working with orcas.”

Hargrove was one of the first voices **8. heard** in *Blackfish*, the 2013 documentary that **9. raised** questions about SeaWorld's practices; it **10. was released** three years after the death of a SeaWorld trainer named Dawn Brancheau, who **11. was attacked** by an orca during a performance. Hargrove's book **12. elaborates** on some of the documentary's claims but also testifies to the thrill of standing athwart four tons of muscle rushing through the water at 30 miles an hour. And, equally, the nearly mystical experience of bonding with an intelligence eerily similar to our own, yet ultimately unfathomable—and uncontrollable.

Hargrove, who quit SeaWorld in 2012, suffered numerous broken bones and nearly destroyed his sinuses. It was a risk he ran with his eyes open, and one that, in the end, he **13. seems** to feel **14. was** almost worth it. “I **15. owe** those whales,” he **16. says** in an interview. “They gave

me so much in my life and my career.” But the whales’ physical and emotional well-being, he grew to believe, was incompatible with captivity. Confined to unnatural social groups for the convenience of their owners, bored and restless, forced to perform tricks for food that trainers withheld as punishment, they occasionally **17. slipped**, he writes, “into the dark side.”

SeaWorld **18. won’t discuss** Hargrove’s book before it appears, but vice president of communications Fred Jacobs writes in an email that “John Hargrove joined ranks with animal rights extremists after leaving SeaWorld and **19. has** eagerly **embraced** their habit of misleading the public to advance an agenda.” The company **20. disputes** most of the assertions in *Blackfish*, but it **21. has outfitted** some pools with fast-rising floors, so that a person who **22. falls** into the water with a whale **23. can be** quickly **lifted** to the surface. (After Brancheau’s death, the Occupational Safety and Health Administration prohibited trainers from performing in the water with orcas.) Trainers **24. have begun** **25. carrying** emergency compressed air. And the San Diego park **26. plans** to begin construction this year on a new orca habitat, called Blue World, that **27. will** more than **double** the swimming space.

Hargrove, living now in New York City, **28. has adopted** a pet of his own: Beowulf, a 98-pound pit bull-Dalmatian cross. She is, he says, as close as you can get to a killer whale in dog form.

### **Task 19**

#### **Unique Salt Coating Helped Preserve 25-Foot-Long Dead Sea Scroll**

Jason Daley, Smithsonian.com, Sept. 9, 2019

<https://www.smithsonianmag.com/smart-news/unique-salt-coating-helped-preserve-25-foot-long-dead-sea-scroll-180973074/>

How **1. did** the Dead Sea Scrolls—documents **2. written** on parchment, papyrus and bronze—**survive** almost 2,000 years in caves near the Dead Sea? Researchers **3. have been intrigued**, in particular, by one document called the Temple Scroll, a 25-foot-long parchment that still **4. maintains** a bright white surface. Now, a new study of the scroll **5. is elucidating** some of the methods that **6. kept** it intact for millennia.

Back in 1947, a Bedouin shepherd **7. searching** for a lost sheep found a series of caves in the limestone cliffs above the Dead Sea near Qumran. Inside, he **8. came across** clay jars in which a handful of scrolls **9. had been stuffed**. In the following decades, further excavations in the area uncovered around 900 scrolls written in Hebrew, Aramaic and Greek, dating from the 3rd century B.C. to the 1st century A.D. Some scrolls contained content from the Bible while others were non-biblical religious texts. It **10. is believed** the scrolls **11. were hidden** in the caves by a

sect called the Essenes, **12. to protect** the texts from destruction by the Roman Empire, though that theory **13. has** recently **come** under scrutiny.

To understand how the Temple Scroll survived all those years, a research team **14. was given** access to a 1-inch fragment of the parchment—itsself just 1/250th of an inch thick—from The Shrine of the Book, a museum in Jerusalem that **15. holds** the scroll. Besides **16. being** super long, the scroll is unusual in several ways, Nicola Davis at *The Guardian* reports: The text **17. is written** on the flesh side of the skin, which is uncommon. The thin parchment may be an animal skin that **18. has been split** in two. And the text is written on a thick layer **19. containing** lots of inorganic minerals **20. pressed** into the collagen.

The team tested the parchment's chemical composition and mapped it in high resolution using specialized techniques. "These methods **21. allow** us to maintain the materials of interest under more environmentally friendly conditions, while we collect hundreds of thousands of different elemental and chemical spectra across the surface of the sample, **22. mapping** out its compositional variability in extreme detail," coauthor James Weaver of the Wyss Institute at Harvard University explains in a press release.

What they found were some unexpected chemicals, in particular salts that **23. do not come from** the Dead Sea region. The paper appears in the journal *Science Advances*.

In ancient times, parchment **24. was made** from animal hide that **25. had** the hair and tissue **removed** through enzymatic treatments before it was scraped down and stretched. After it dried, the hide was sometimes prepped further using salts. While other scrolls from the region were prepared with salt derived from the Dead Sea, the proportion of sulfur, sodium, and calcium on the Temple Scroll don't match salt from the area, **26. meaning** the salt came from elsewhere, though the team does not yet know where. Maria Temming at Science News **27. reports** that the scroll also **28. contains** gypsum, glauberite and thenardite, which aren't found in the area either. "Sometimes you find a lot of inorganic components on these scrolls or fragments, and they probably came from the caves," says coauthor Admir Masic, an MIT research scientist. In this case, however, the minerals were not present in the caverns.

Co-author Ira Rabin of Hamburg University in Germany tells Davis that while the mineral coating is unusual, it's consistent with the western tradition of parchment preparation in which parchments are untanned or lightly tanned. In the eastern tradition, parchment hides are completely tanned. Temming reports that a similar coating was found on a few other Dead Sea Scrolls as well, meaning that it's possible that the prepared parchment **29. was being imported** into the area.

**30. Figuring out** how the parchment was made **31. will** not only **shed** some light on the Temple Scroll; it **32. could** also **help** document researchers of all sorts **spot** forgeries and aid in document conservation. “This study has far-reaching implications beyond the Dead Sea Scrolls. For example, it shows that at the dawn of parchment making in the Middle East, several techniques were in use, which is in stark contrast to the single technique used in the Middle Ages,” Rabin says in the press release. “The study also shows how to identify the initial treatments, thus providing historians and conservators with a new set of analytical tools for classification of the Dead Sea Scrolls and other ancient parchments.”

The most important finding to come out of the study, however, is the confirmation that the mineral coatings on the parchment are hygroscopic, meaning that they easily **33. absorb** moisture from the air. That moisture **34. can degrade** the underlying parchment, meaning conservators need to pay special attention to humidity levels, since even small fluctuations **35. could cause** a scroll that **36. survived** the last 2,000 years of history in a forgotten jar **37. to** finally **crumble** inside a high-tech museum.

## **Task 20**

### **A Warming Climate Threatens Archaeological Sites in Greenland**

Lucas Joel, Smithsonian.com, Aug. 30, 2019

<https://www.smithsonianmag.com/science-nature/warming-climate-threatens-archaeological-sites-greenland-180973021/>

In Norse mythology, there are many myths that once known, **1. are** now **lost**. But the Norse, of course, left behind more than their tales. They also left behind their things and, in places like Anavik, on the western coast of Greenland, their dead.

And long before Vikings came to Greenland, the indigenous Inuit people left behind mummies, as well as hair with intact DNA.

Elsewhere in the Arctic, on an icy island called Spitsbergen, there’s a place called the Corpse Headlands, where there are graves **2. filled** with the bodies of 17th and 18th century whalers. When archeologists excavated the site in the 1970s, they found down-filled pillows, mittens, and pants **3. sewn** together from pieces of other pants.

The Arctic’s ice **4. helps preserve** these snippets of human history. But snippets of organic material **5. rot** when it’s hot, and new research **6. is finding** that as the world warms, remains

like those at Anavik and Corpse Headlands **7. will decompose** before archaeologists are ever able to unearth them.

“The microbial degradation of the organic carbon **8. is** really temperature dependent,” said Jørgen Hollesen, a geographer at the National Museum of Denmark in Copenhagen.

To get a clearer picture of the warming, Hollesen and his team installed weather stations at five sites in western Greenland, where they measured soil temperature and water content. Inland sites, they found, get less rain overall than coastal sites, and they also tend to be hotter. Such dryness and hotness, Hollesen said, create ripe conditions for decomposition because bacteria that **9. decompose** organic matter have more air **10. to breathe**.

The team then modeled, under different greenhouse gas emissions scenarios, just how much decomposition they **11. might expect 12. to see** in the next century.

They found that instead of Arctic archaeological remains **13. taking** at least a century or more **14. to fully decompose**, up to 70 percent **15. will likely vanish** in the next 80 years. In Greenland alone, there are over 6,000 registered archaeological sites. This number includes both Norse and Inuit sites.

“We cannot afford the luxury of thinking that heritage sites preserved underground **16. are preserved**,” said Vibeke Vandrup Martens, an archaeologist with the Norwegian Institute for Cultural Heritage Research who **17. was not involved** in the new *Scientific Reports* study.

Vandrup Martens **18. studies** remains on Svalbard that **19. stand** a good chance of **20. decomposing** at a rapid pace over the coming years, and she hopes this new research will help archaeologists like her when it **21. comes to 22. prioritizing** which of those sites they need **23. to work 24. to preserve**. “It’s a question of choosing, or just accepting **25. having lost** it,” she **26. said**.

It’s still not possible to say what kinds of remains, **27. be** they bones or clothes or wood, **28. will decompose** first. But **29. finding** that **out 30. is** what Hollesen **31. wants 32. to do** next by **33. keeping** an eye on what kinds of remains **34. appear to be decomposing** the fastest.

“We don’t know which ones contain something that could be fantastic,” he said. “You don’t know what you **35. haven’t found** yet.”



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