

True or False Questions

If you want to keep it simple, or do not have enough time to create elaborate questions, I would recommend true or false questions. They are very easy to make since the answer options will only be true and false. Note that when you play a Live Game using true or false questions, do not select *Shuffle answer options*. As you can imagine, it will just make the game unnecessarily confusing (sometimes *true* will be on the top and sometimes on the bottom of students' devices).

Another key to make Quizizz more engaging is to let students play in pairs. When I use Quizizz as a reading activity, I generally have my students get into pairs and play collaboratively. Although they don't have to share their device, compared to playing individually, working in pairs increases their interaction, and this will enhance their engagement.

Conclusion

Quizizz is one of the most engaging online tools for language classrooms because it helps students enjoy classroom activities. From my experience, Quizizz brings fresh energy into the classroom, and my students are always happy to play it. Of course, just having fun is not enough for language learning, but lowering students' affective filters through such an experience should be essential for successful language learning. Hopefully, this encourages you to use this tool in your classrooms and helps your students enjoy your classroom activities.

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[JALT PRAXIS] YOUNGER LEARNERS



Mari Nakamura & Marian Hara

The *Younger Learners* column provides language teachers of children and teenagers with advice and guidance for making the most of their classes. Teachers with an interest in this field are also encouraged to submit articles and ideas to the editor at the address below. We also welcome questions about teaching, and will endeavour to answer them in this column.

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Bringing Climate Education into EFL Classrooms

Chris Kozak with additional material by Marian Hara

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Droughts in India, record high temperatures in Australia, rain bombs covering the entire city of Dallas, scores of animals perishing—it seems that every day there is news of a new extreme caused by the climate crisis. Close to 40,000 protesters from 15 countries gathered in the German city of Aachen on Friday, June 21, 2019 to raise awareness and demand that leaders around the world declare a climate emergency. These 'Fridays for Future' strikes

started due to the brave actions of Swedish teenager Greta Thunberg. We are now in a state of climate crisis, and since students are leading the charge, it should be our role as educators to provide them with the information and skills vital to their understanding of the natural world. The goal of this article is to introduce the science of climate change, suggest some age appropriate approaches and teaching strategies, and give teachers some resources to help them teach about climate change with confidence.

One of the challenges language teachers face is finding resources that allow for the right language and pedagogical methods for our classes. Rather than creating an entirely new climate crisis class, infusing all courses with relevance to the climate crisis is a better way to approach the topic (Henderson, 2019). In the language classroom, many of us have the latitude to design courses in which the necessary language is taught as we introduce concepts and facts.

Let us look at how we can approach the topic at elementary, middle, and high school levels.

Elementary Students

There are two things to keep in mind with elementary (Grades 1-6) learners: tone and vocabulary. Above all, elementary learners should be taught positive, uncomplicated aspects of nature and the environment. Conveying simple, relatable messages about nature nearest to them is the best way to strengthen their relationship to the natural world. For example, talk about a nearby park—the insects, birds, people, and pets that visit the park, and why it's such a great place to be during the day. Finding out what students know is a great way to continually reinforce their innate love for nature (Wilson, 1984). Animals are an excellent way to teach elementary students about our connection to nature. Simply showing photographs of endangered animals can get any class talking about the need to protect their habitats. (WWF, 2019). For example, pass out animal photographs and have groups of three or four students discuss their habitats, such as arctic, rainforest canopy, jungle, or ocean. The issue of plastic, specifically ocean plastic, is another important environmental and cultural issue to tackle. Students can be encouraged to notice the many ways we use plastic and to think about ways to reduce our dependence on it.

Middle School Students

We now know for certain that climate change is happening. The October 2018 Intergovernmental Panel on Climate Change report warned us that we only have twelve years to limit fossil fuel use before exceeding the recommended safe zone of a 1.5°C increase in average global temperatures (IPCC, 2018). Many scientists, activists, religious leaders and philosophers have talked about our moral obligation to act in the face of the climate crisis (Moore & Nelson, 2010).

As the following graph shows, the trend of stable temperature that lasted over one thousand years was followed by a rapid increase caused by greenhouse gas emissions in the 20th century. This visual is an excellent way to let students see at a glance how serious the problem is. Older students could use library books or the Internet to research what humans were doing to cause this rapid increase, with hints and useful vocabulary lists provided as needed. For younger students, it might be easier to use a gapped listening activity, with any difficult words provided and easier words as gaps.

Middle school students need to understand the difference between weather (short term) and climate (long term), not to mention the greenhouse effect. Briefly, because of increased greenhouse gases like CO₂ in the atmosphere, the increasing

“thickness” of the atmosphere traps more heat, thereby causing global warming. National Geographic’s ‘Global Warming 101’ YouTube channel and the relevant section from the documentary film ‘An Inconvenient Truth’ provide excellent visual lessons that explain why the hottest ten years since 1880 have almost all been the last ten years. NASA’s Climate Kids website is a great place to find classroom-suitable graphics. Explain how fossil fuels like natural gas and gasoline create CO₂ and have students brainstorm some common sources such as gas ranges, scooters, cars, trucks, buses, and airplanes.

Greta Thunberg has become a symbol of the climate crisis movement. Focusing on her life and her message is a great way to get students interested in the issues since she is a global role model for direct action in fighting the climate crisis. An information gap activity about her could precede, or follow, watching one of the many videos available online. A list of possible questions and answers is available as an appendix (see the link at the end of this article). The questions can be selected or altered to suit language and ability level, as indicated on the teachers’ notes. Students can also write what they think about Greta and her movement.

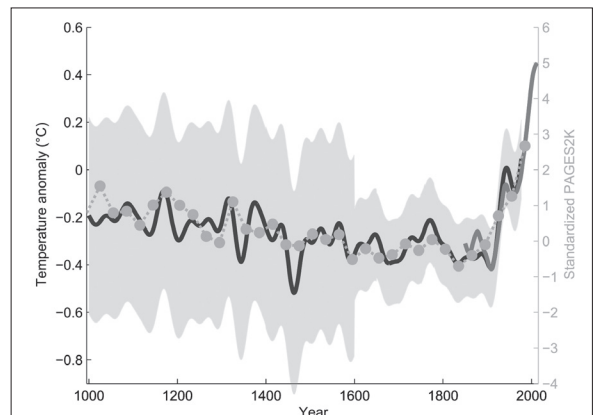


Figure 1. “Hockey Stick” graph (Mann, Bradley & Hughes, 1999).

High School Students

At high school level, we can ask students what they think is causing climate change. One of the main causes being greenhouse gases, the next focus should be the sources of CO₂ and methane (CH₄) caused by the burning of fossil fuels. Our elementary school CO₂ source list can expand to include shipping and construction, and livestock farming. The topic presents some difficult vocabulary, so teachers should ensure that they provide adequate scaffolding before embarking on communicative activities.

Once students understand the causes of climate change, they can start to learn about the solutions, which include solar, hydro, geothermal, and wave energy. The following activity, provided as an online appendix to this article, asks students to guess what percentage of each type of energy would be appropriate for Japan. The poster can be shown to students after completing the activity.

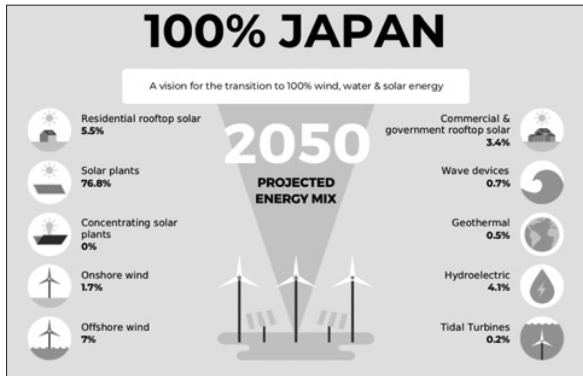


Figure 2. Japan's 100% energy solution by Stanford University (2019).

A good example of a solution close to home for Japanese students is Yokohama city's plan to eliminate all internal combustion engines by 2050. The downloadable PDF (City of Yokohama, 2018) could be printed and read in groups to inspire discussion of civic transportation issues. This also covers how local and national governments can and should lead the way in developing solutions. Students could then find other examples of energy solutions and present them to each other in pairs or groups in class.

At the high school level, it's also important to have a conversation about media literacy. In a time when memes on social media spread disinformation, students need to know how enormous commercial interests finance fake news and create doubt about climate change (Oreskes & Conway, 2012).

Make sure you debate the possibility of participating in a 'Fridays for Future' student strike like the one started by Greta Thunberg, the Swedish protestor who began her activism at age 15. By utilizing YouTube, you can find her three and-a-half minute COP24 speech at Katowice, Poland. Depending on the IT resources available at your school, you can also print out the text of her speech or show it on the class monitor. Students would have to add appropriate punctuation, capitalization, and make decisions on paragraphing. Quizlet.com has a word list and definitions already prepared (search for 'Greta COP24'), so you could bookend the lesson

by introducing the vocabulary and then end with a matching game.

For higher levels, students could consider cultural aspects that make it possible for hundreds of Canadian students to leave class to protest but very difficult for Japanese students to do the same. Let them know that twenty-one students are suing the American government for violating their right to clean air and clean water under the concept of public trust doctrine (*Juliana v U.S.*, 2016).

For even higher levels, there is an excellent 16-page downloadable workshop (WWW, 2019), designed by the World Wildlife Fund in association with the Netflix series *Our Planet*, that could fill two or three class sessions. Some students are assigned as world leaders and have 100 billion "World Dollars" to spend. Others give briefings on energy, food, and health to lobby governments on how to best invest their fund to ensure a positive future for the planet.

The Climate Reality Project

In October this year, Tokyo will host a two-day training of former US Vice President Al Gore's Climate Reality Project. At the training, Mr. Gore will assist participants in gaining the skills, knowledge, and network necessary to solve the climate crisis. This will be a great opportunity for high school students, teachers, and others who are eager to participate and act for climate solutions.

Polls in the U.S. (Ipsos, 2019) show that teachers want climate crisis training and parents want schools to teach it. So, whether it's in the streets or in the park, at the planned global strike on September 20th, or in the classroom on a daily basis, now is the perfect time to muster the courage, information, and support to teach about the climate crisis and its solutions—no matter what courses, ages, or levels you teach. By bookmarking online sources for climate change education, creating age-appropriate lesson plans, and collaborating via social media networks, any teacher can become confident in teaching about the climate crisis.

The appendices are available as downloadable PDF Files from the online version of this article at: <http://jalt-publications.org/tlt/departments/youngerlearners>.

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Chris Kozak has been a passionate music and ESL educator in Japan for over twenty years. He holds a Bachelor of Music degree from the University of Alberta, Canada, and teaching accreditations from a wide range of institutions and associations. He is a volunteer in Al Gore's Climate Reality Leadership Corps and gives the Nobel Peace Prize-winning presentation to explain how to take action against the climate crisis.



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Learning about Greta Thunberg and the Fridays for Future Movement

These questions are designed for Grade 9 level but can be adapted for other grades. Likewise, the answers can be presented with blanks for lower levels or used as a straightforward dictation activity for higher levels. The questions and answers could also be cut up to be used as a matching game or for a “karuta”-style listening activity.

If you prefer fewer questions, combine the first few answers as an introduction that the students read before starting the Q&A session. Some alternatives have been included in brackets.

This can be run as a random mingling-style activity, with one answer per student, pair work with two students taking turns to ask and answer the questions, or a group activity in two stages.

Group Activity

Divide the class into 3 or 4 groups (alternatively 6 or 8 groups with large classes). In this first group, students practice reading all of the questions plus the answers they have been assigned. The teacher(s) should circulate to check and help students with pronunciation, stress, and intonation.

Then form new groups, with one member from each of the initial groups – doubling some students up if the numbers are not even (which is useful if you have some weaker students). In the new groups, the students ask each other and answer the questions in turn, with a gap fill handout if necessary.

A whole-class choral review of all the answers can wrap it up, with further review later as required, leading to formal testing if needed. Students can also quiz each other to review.

Students Making Questions

Another way to use this material is to present it in paragraph form to the students, who then work in groups (or as an individual homework exercise) to create the questions themselves, possibly giving half each to half of the class or dividing among groups.

The questioning can then be done, likewise in pairs or groups, with the students scanning the paragraph to answer their classmates’ questions. The teacher will need to check the students’ questions and proposed answers before the activity is run, so plan the timing accordingly.

Discussion Activity

This could be followed by a whole class or group discussion, with open-ended questions such as “What do you think of Greta’s activity?”, “Would you like to join in this kind of activity?”, or “What can young people in Japan do about the climate crisis?” Survey style questions are also interesting, with Yes/No or Agree/Disagree answers, as well as questions like “Is this a good way to fight against the climate crisis?” and “Do you think it’s OK to miss school for a climate strike?” Sometimes students are more willing to express their ideas in groups and this provides more talking time. The groups can then share some points from their discussion in turn.

Note 1: *Explain any new vocabulary or difficult pronunciation before starting the activity, e.g.*

activity 活動, parliament 議会, movement 運動, climate 気候,
crisis 危機, solve 解決する, ppm100 万分の1, strike ストライク

giving the Japanese equivalent.

Note 2: *Please select the questions you want to use or add other details from your own reading Adjust the wording and length of answers to suit the student level and grade.*

Greta Thunberg and the Climate Crisis

1. Where does Greta Thunberg come from? She comes from Sweden.
2. How old is she? She is 16 (years old).
3. When did she start her activity? She started when she was 15.
4. What did she do then? She started a school strike outside the Swedish government building. (parliament)
5. Why did she do that? She wanted to send a message that adults must do something about global warming.
6. Did Greta start her movement with friends? No, she sat outside the building by herself, holding a poster.
7. Did she really go on strike from school? Yes, but not every day, only on Fridays.
8. What did she call her movement? She called it "Fridays for Future".
9. Did she get into trouble at school? No. Her teachers want her to study but they understand her message.
10. What did her parents think? They worried about her, but they supported her ideas.
11. How did Greta get this idea? When she was younger, she learned about global warming. She couldn't understand why adults are doing nothing to solve this problem.
12. What did other people think about her actions? A newspaper wrote about her and then other students joined her.
13. Is she very famous? Yes, she has met many world leaders and some people want her to get the Nobel Prize.
14. Is this movement only in Sweden? No, it has spread all over the world. Many young people are angry.
15. What does Greta want adults to do? She wants them to listen to scientists who say we must stop global warming.
16. What does she say about global warming? She says it is getting worse and it's now a "climate crisis".
17. How is global warming getting worse? The CO₂ levels are rising. The level is now 415 ppm.
18. What is a safe level of CO₂? Scientists say we should cut CO₂ to 350 ppm.
19. Has Greta changed anything? Yes, in Sweden many people have stopped flying because it causes more CO₂.
20. Does Greta fly in airplanes? No, she always uses trains and buses. Her parents follow her idea too.
21. What else can we do to cut CO₂ levels? We can use less oil and coal (fossil fuels) and plant more trees.
22. Are students in Japan striking too? Yes, students in Tokyo and Kyoto held marches from February this year.
23. What do Japanese schools think about this (students striking)? Japanese schools are strict about students not going to school.
24. Is it hard for Japanese students to strike? Yes, but the last march in Tokyo was held from 4:30 so many students could join.

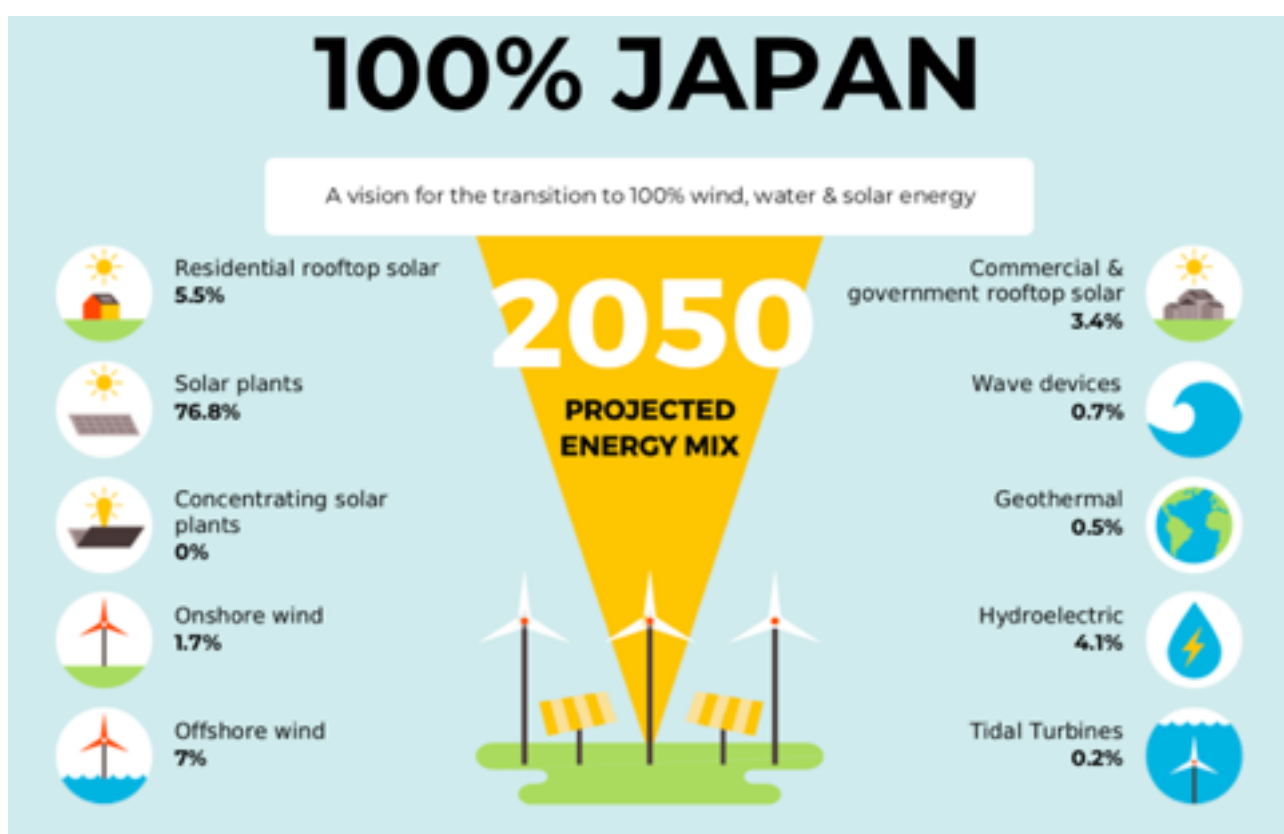
Making use of infographics

Charts and illustrations can help effectively communicate important information and ideas effectively. For this example, one idea is to have the students work in groups or pairs to match the definitions in Japanese with the types of energy listed on the worksheet below. Marking each other's answers is time-saving and fun.

Pre-teach important vocabulary so the students can pronounce each word correctly, and review their pronunciation at the start of the following lesson. Having students read the definitions aloud at the start is recommended. You can review in the next lesson by asking, "What does ___ mean?" and having the students read the definition aloud, "It means ___", or ask each other in turn.

Next, have students guess the range of percentages recommended for Japan to move to a 100% sustainable energy mix. The team that gets the most correct answers from among the percentages listed on the worksheet can be presented with an 'eco-scientist' award. It's fun to give a great looking certificate to the winning team(s). Then you can spend time discussing details and deal with any questions. Don't forget to give students a copy of the infographic or display the poster in the classroom.

With more time to spend and/or stronger students, you might ask pairs or groups to conduct research online to find the benefits and drawbacks of each method. The same could also be done with coal, oil, methane, LNG, and nuclear depending on the overall length of time you are spending on this activity. High level students might be able to handle a discussion or debate on whether nuclear power is sustainable or not, considering the risks and costs of things like decommissioning and waste storage.



A 100% Sustainable Energy Plan for Japan

Experts produced a plan for Japan to change its energy balance.

Let's try to read their minds! This is a team challenge to win today's **"Eco-scientist Award"**!

Make sure you know these words before starting:

electricity 電気 energy エネルギー power 電力 public 公的 collect 集める
heat 熱 panel パネル produce 作る・生み出す turbine タービン(回転する原動機)

Part 1: What do we call these types of energy? Choose a-j from the box below.

1. *collecting and converting solar energy to electricity with panels on top of houses*
2. *placing many solar panels on the ground over a large area of land*
3. *using mirrors to focus the sun's heat on one place and produce energy*
4. *collecting wind on the land using windmills of many sizes*
5. *using large windmills in the sea to collect energy*
6. *using large company and public buildings to collect the sun's energy.*
7. *using the movement on top of the sea to produce energy*
8. *making energy from the heat deep in the land*
9. *using the movement of flowing water to produce energy by moving a turbine*
10. *using the movement of the water deep in the sea to produce electricity*

a. Commercial & government rooftop solar b. Concentrating solar plants
c. Geothermal d. Hydroelectric e. Offshore wind f. Onshore wind
g. Residential rooftop solar h. Solar plants i. Tidal turbines j. Wave devices

Check your answers to find your score for Part 1. Change papers with another team & write the score.

Our Part 1 score: / 10

Part 2: Now try to think like expert scientists.

What percentage did the scientists recommend for each kind of energy? Match the percentages:

0%, 0.2%, 0.5%, 0.7%, 1.7%, 3.4%, 4.1%, 5.5%, 7%, 76.8%

Now change your papers again to learn your total score. Let's find the winning team or teams!

Our Total score: / 20

Name: _____