

Hungarian train by Sinéad McMorro

Age:	Adults
Level:	Intermediate +
Time:	45–60 minutes
Objectives:	To listen to and understand an authentic video on the topic of a solar-powered train
Key skills:	Listening, speaking
Materials:	One copy of the worksheet per student

Preparation

Before the lesson, watch the Reuters video 'Hungarian train shines light on self-contained solar power' (www.youtube.com/watch?v=__bikqRuzN4) and make a note of any important vocabulary that you think will be unfamiliar to your students. You will pre-teach these items of vocabulary to your class during the lesson. Note that *narrow-gauge railway* and *photovoltaic panels* are already defined on the student worksheet.

Procedure

Warmer (optional – for stronger groups)

1. Jumble the headline (*Hungarian train shines light on self-contained solar power*) and get students to put the words in order. Give them time to try this alone before putting them in pairs or small groups to solve the task together.
2. Get all possible answers from the class before revealing the real headline.

Lead-in

1. Show students the headline from the news report – *Hungarian train shines light on self-contained solar power* – and ask them to predict the content of the report. You can write the headline on the board, display it on an IWB or dictate it to the class.
2. Students should speak in pairs or small groups for a couple of minutes (you can set a time limit) before sharing their ideas open class. At this point, accept all possible answers but do not say whether they are right or wrong.

Note: You may need to check the meaning of *shine light on* – to make something clear or easier to understand.

Prediction task

1. Ask students, working alone, to write down ten words they expect to hear in the report. These words can be nouns, verbs, adjectives or adverbs but they cannot be the words from the headline.
2. Students compare their lists in pairs and give reasons for choosing their words. They should also clarify any words that are new to their partner. At this point, students can decide to change their list if they want to, based on their pair discussion. For example, they may want to replace a word with one of their partner's words.
3. Monitor and check everyone has ten words.

Listening 1

1. Students watch the report and tick the words from their list that they hear.
www.youtube.com/watch?v=__bikqRuzN4
2. Give students about half a minute to compare how many words they ticked with a partner.
3. Get class feedback starting with the person with the most ticks. This person will get a point for each word on the list that no other student has got. Go through other students' lists in the same way. This shouldn't take too long since students are only reporting different words that haven't already been mentioned. Praise the student with the most points.

Note: This is a good opportunity for students to peer-teach lexis to the class.

Listening 2

1. Now, hand out the worksheets. Tell students they have half a minute to read the comprehension questions to see if they understand them. Point out the glossary, too.
2. Wait for students to read the questions. Once you have dealt with any queries, pre-teach any important vocabulary from the video that you think will be unfamiliar to your students.

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3. Then, instruct them to make notes of their answers while watching the video again.
4. Once they have finished, put students in pairs to compare their answers.
5. Check the answers with the whole class.

Key (suggested answers):

1. limited range and the need to stop and recharge when the battery is low
2. 100 square feet of photovoltaic panels on the roof of the train convert solar radiation into electricity
3. *collecting solar energy on the train itself for use by electrical engines. Other models use solar panels at the train station. Putting solar panels on a moving vehicle is unique, according to László Lengyel.*
4. The brakes recover and store part of the energy used when braking and use it to propel the train later on – similar to Formula 1 racing cars.
5. There is nothing that produces pollution.
6. high maintenance costs

Follow-up discussion

1. Put students into small groups of three or four to discuss the questions on the worksheet. Set a time limit of five minutes. Monitor while students are speaking and make a note of any good or bad uses of language that you hear. If you notice that a student is not participating in the discussion, encourage them gently.
2. When the time is up, get each group to report back on their discussion and allow other groups to react to their ideas.
3. You can round off the lesson by doing some delayed feedback on the board using the notes you made during the discussion. Get students to identify the incorrect sentences and to correct them

Hungarian train
by Sinéad McMorro**Hungarian train shines light on self-contained solar power****Video**

Read the following questions. Then, watch the video again and answer them.

www.youtube.com/watch?v=__bikqRuzN4

1. What key problem does this prototype overcome?
2. How does the prototype overcome this problem?
3. What's the most special thing about the tram?
4. How is the braking system more efficient than that of other trains?
5. What makes this tram a completely green system?
6. What problems still need to be overcome?

Glossary

narrow-gauge railway – a railway with narrow tracks

photovoltaic panels – panels that convert sunlight into electricity

Discussion

1. Have you heard of this train before?
2. What do you think about it?
3. What are the potential applications of this invention?
4. What are its limitations?.