|  |
| --- |
| **Listening Lesson Plan** |
| **SOLAR COOKING** |

|  |  |  |  |
| --- | --- | --- | --- |
| Instructor:  **Hayley Noh** | Level:  **Intermediate** | Students:  **12** | Length:  **50 Minutes** |

|  |
| --- |
| ***Materials:***   * Video Clip & Projector (3min.10sec.) * 2 pages of Video viewing worksheet (12 copies) * White board, board markers |

|  |
| --- |
| ***Aims:***   * To learn what kind of problems that a lot of people are facing to and the solutions to solve it. * To predict the process of making solar cooker with inexpensive way. * To practice listening to real-life speech of people with various accents. * To be able to pick up details from the fast-paced real-life talk by answering details questions on a worksheet. |

|  |
| --- |
| ***Language Skills:***   * Listening: the speakers’ speeches about how the solar cooking could be the solution to help people who do not have access to fuel or who cannot afford to buy a regular stove. * Speaking: prediction, comparing answers within groups * Writing: details (dictation), figuring out the topic sentence, supporting sentence, and closing sentence from the worksheet. |

|  |
| --- |
| ***Language Systems:***   * Function: Understanding on the information about solar cooker. * Structure: relative clauses, comparatives. * Lexis: synonyms and antonyms |

|  |
| --- |
| ***Assumptions:***  Students already know:   * How the class is set up and run. (there will be 3 groups at each table) * The teacher’s style of teaching and the pace of the course. * All students are middle school students (Age 16 and up) |

|  |
| --- |
| ***Anticipated Errors and Solutions:***   * Students may not be able to follow the instruction easily.   →Follow the task-feedback : let them view the some part where they don’t understand on.   * Students may not be able to pick up details from the video.   →Chunk the video by process (pause-play-pause-play)   * Students may need more time to work on worksheets.   →Give them extra time on it for about 5minutes, and answer-checking by verbally sharing the answers instead of having students write them on the board.   * If time is short,   →Ask students about the eco-friendly invention could be helpful for their life and why or why not. |

|  |
| --- |
| ***References:***   * National Geography Youtube Video https://www.youtube.com/watch?v=Ofn7jqPDTeY |

|  |  |  |
| --- | --- | --- |
| **Lead-In** | | |
| **Materials: Board** | | |
| **Time** | **Set Up** | **Procedure** |
| 3 min | Whole Class | Hello class, how are you all today? I remember we have done midterm on last week, how do you think the result will be? We will have the report card by next week, and don’t worry too much about your marks yet. Everyone did great job on it.  OK, so today, we will watch a video about ‘‘Solar cooking’’. And while you are watching it, please try to select the answer on your worksheet.  *[Hand them the worksheet]* |

|  |  |  |
| --- | --- | --- |
| **Pre-Activity** | | |
| **Materials: Worksheet, Board** | | |
| **Time** | **Set Up** | **Procedure** |
| 12min | Whole Class  /  As Group of 4 | Alright, Before turn on the video, let’s take a look on the worksheet together. How can you imagine this video is going to talk about? What kind of information can we get from this video? Just like the title, can we really cook with the solar cooker? If yes, what kind of food can you make with it?  *[After getting all the answers from each one of the student..]*  Sounds very interesting to hear all of the creative thoughts! Let’s gather as a group of 4. Each group can discuss about the answers together while watching the video. Now, let’s play the video! |

|  |  |  |
| --- | --- | --- |
| **Main Activity** | | |
| **Materials: Worksheet, Board, and Projector with video on** | | |
| **Time** | **Set Up** | **Procedure** |
| 25min | Whole Class | *[Viewing the video for twice will take about 8min]*  I will give you for about five minutes to discuss about the final answers on your worksheet. Before correct the answers on the first part of the worksheet, let’s have look on the text box with the summary in it. What are you expecting to have on the first blank? Yes, Topic sentence comes first. And.. How about the second blank? Let’s talk about this and find it out to talk about it.  *[Go over on the summary part, and make sure that the class all understood about the video.]*  Ok, class! By going through this summary part together, was it helpful for you to understand on the ideas about the solar cooking? Let’s take a look on the number one on the work sheet, even if you have got a wrong answer, share your decisions and the reason why you choose that answer. Everyone might have different way to understand the contents.  *[Go over on the comprehension questions.]* |

|  |  |  |
| --- | --- | --- |
| **Post Activity** | | |
| **Materials: Worksheet, Board** | | |
| **Time** | **Set Up** | **Procedure** |
| 10min | Whole Class | So, class! You have seen this video on solar cooking. How was the solar stove work? Yes, definitely! It is a stove that does not use electricity, gas, or any other kind of fuel. Can any of your group can explain how does the solar cooker works?  [Let the students to talk about it.]  What are the benefits on this solar cooker? If you can improve on the solar cooker, how are you going to change it?  Great job for everyone! For the next class, can you invent something that is useful for your life too? Any kinds of invention will be fine unless there are some explanations on it. We will start next class with presenting your own invention! Thank you all for today! |

**Video Script to Show**

**Solar Cooking https://www.youtube.com/watch?v=Ofn7jqPDTeY**

**Narrator:** It’s a cold day in Borrego Springs, California, but Eleanor Shimeall is cooking outside. But she’s not using electricity, gas, or any of the fuels we normally use in the kitchen.

**Eleanor:** I’m gonna check on this chicken and rice and see whether it’s cooking. Ah, it’s doing a good job.

**Narrator:** Instead, Eleanor is using the sun to make her meal. She has done this almost every day for the last 23 years. With sunshine, solar stoves can be used to cook everything from meat and fish, to bread and vegetables. This method is becoming popular with people who care about the environment. Solar stoves can help save energy at home, and save lives in the developing world.

**Dr. Metcalf:** With sunshine, you have an alternative to fire. And that’s important for two and a half billion people to learn about because they’re running out of traditional fuels.

**Narrator:** Dr. Bob Metcalf is one of the people who started Solar Cookers International, a small group in Sacramento, California. SCI has taught people about solar cooking for the last 15 years, especially in the poor areas of Africa where people cannot afford a normal stove. They hope this innovation will also benefit women.

**Dr. Metcalf:** They have to walk about two to three miles or so to collect wood. And then they have to tend the fire, and the smoke from that fire—it burns their eyes and chokes their lungs.

**Narrator:** According to the World Health Organization, this pollution leads to the deaths of two million women and children each year. With help from other groups, SCI has already trained more than 22,000 families to cook with the sun.

**Woman #1:** Oh, this is good. It’s very good. The consistency is good, the texture is fine— no problem.

**Woman #2:** We’re all amazed that a cardboard box can cook.

**Narrator:** People get their own solar stove to take home after each training. The stove costs about five dollars, lasts almost two years, and works just like the more expensive models.

**Dr. Metcalf:** Shiny things direct the sunshine onto a dark pot that then absorbs the sunshine, and changes that light energy into heat energy. And heat energy doesn’t get out of the clear plastic bag, it doesn’t get out of the window.

**Narrator:** There are also indications that solar cooking can help purify water. About 6,000 people die every day from drinking dirty water. A solar cooker can heat water to a temperature that makes it safe to drink, and so preventing many deaths in developing countries. From Nepal to Nicaragua, there are similar solar projects happening across the world. Some are even using much larger equipment, like this huge pizza cooker in Cuba. But SCI hopes more communities will eventually use solar stoves. These efficient cookers have the power to help two and a half billion people. And maybe such creative yet simple solutions could lead to more devices powered by the sun.

**Woman:** OK, solar cooker!