

Redefinition of the What is Tomorrow's Weather

During your meteorology unit, your students get to be very savvy at predicting the local weather but a reality of the world is that your students may move to other parts of the country in adulthood or high school. Skills and understanding that topography and prevailing winds have a strong impact on the weather is important.

Pre Lesson Preparations

Asking the forecasters at the television station to speak to all of your students is a lot of commitment of time that they might not have. It is better to reach out to a select group of 10 to 15 forecasters that is different each year.

Lists of Network affiliates

ABC: [https://en.wikipedia.org/wiki/List_of_ABC_television_affiliates_\(by_U.S._state\)](https://en.wikipedia.org/wiki/List_of_ABC_television_affiliates_(by_U.S._state))

CBS: [https://en.wikipedia.org/wiki/List_of_CBS_television_affiliates_\(by_U.S._state\)](https://en.wikipedia.org/wiki/List_of_CBS_television_affiliates_(by_U.S._state))

NBC: [https://en.wikipedia.org/wiki/List_of_NBC_television_affiliates_\(by_U.S._state\)](https://en.wikipedia.org/wiki/List_of_NBC_television_affiliates_(by_U.S._state))

In your introduction letter, make sure to include the request to record the video call and save it for a year. This is a three fold protection, most school districts like records of communications with non-employees, the recording can be used to show students who were absent and working with the city, and it is an artifact that the forecaster can request through the district's public relations person to show their participation in community outreach. Below is an email template that can be used to reach out to the forecasters you selected.

The Introduction Letter

Good morning <Formal name of forecaster>,

My name is <Your name>, I teach 8th grade science in <your city and state>. In a few weeks my students will be starting our Weather and Meteorology unit, and as an overarching project students will be doing next day forecasts for here in <your city> and progressing to several other cities around the country including <forecaster's city>.

I am wondering if you would be interested in video chatting via Google Meet with some students who will be forecasting for your city. I would like to record and save the video call for one year in case students who have your city are absent when we are doing the video call. Alternately, if your schedule is too busy then you could just email back answers to these questions.

What are some unique weather phenomenon for your area? Do you have seasonal weather that is driven by the land or water around your city? Do you have advice for a young forecaster doing forecasts in your city?

If you are not able to do either, please forward this to another member of your weather team. I look forward to hearing back from you.

Thank you,
<Your name>

Preparing the Students

When working with the small group of students in preparation for their video call have them prepare a few questions of their own to ask but it is good to seed the group with a prepared question for each student. Below is a chart of some sample questions you can give to each student.

Student	Seed questions
A	What season do you have the most rain?
B	What direction does most of the wind blow?
C	Could you describe an average winter?
D	Do you have season specific weather patterns?
E	Do you have a large temperature change from day to night?
F	What are your summers like?

Preparing for the Meeting

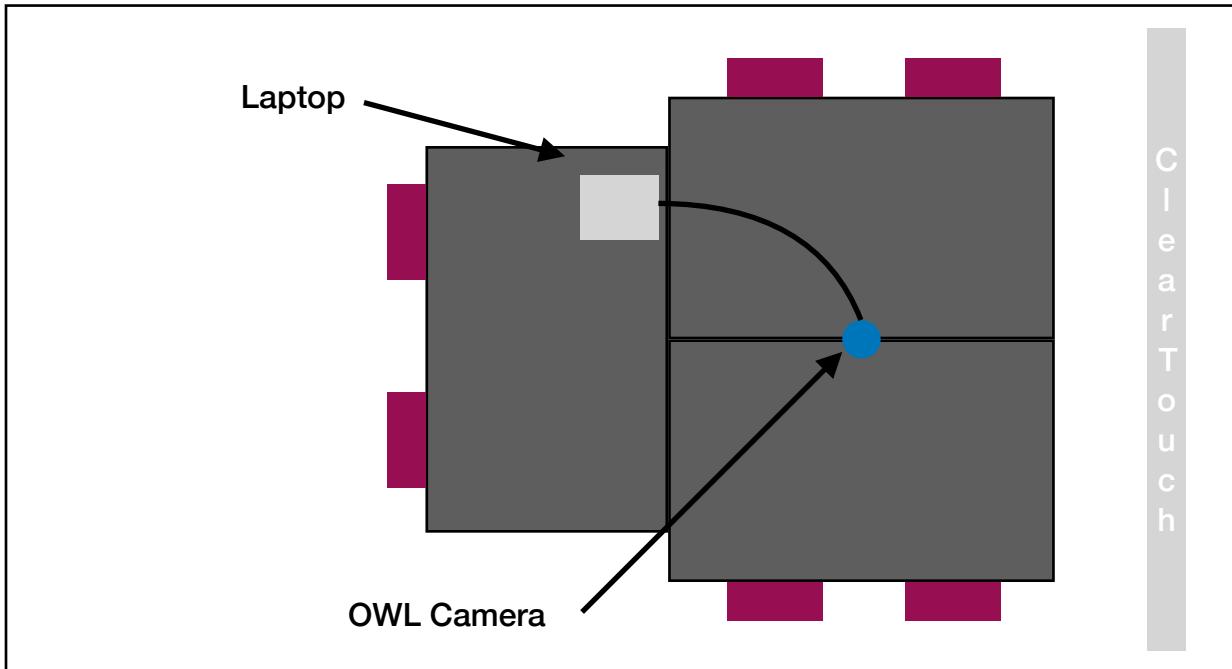
Hardware that is going to be needed for the video call, OWL Meeting Camera, Chromebook, ClearTouch (or similar interactive board), assorted cords and cables. Software is using Google Meet or compatible video conferencing system.



When plugging in your OWL camera, the cords connect in the base. It is easier to plug in the USB first because it is smaller and keyed to only go in one direction. The power plug can be connected second because its barrel connection is more forgiving on being plugged in.

Instead of setting up the video call for the entire class you are only working with a small group of students assigned to that city to meet with the forecaster. To set up your OWL Meeting Camera follow the manufacturer's instructions for set up,

[https://support.owlabs.com/s/knowledge/get-started-with-your-meeting-owl?
language=en_US#start](https://support.owlabs.com/s/knowledge/get-started-with-your-meeting-owl?language=en_US#start)



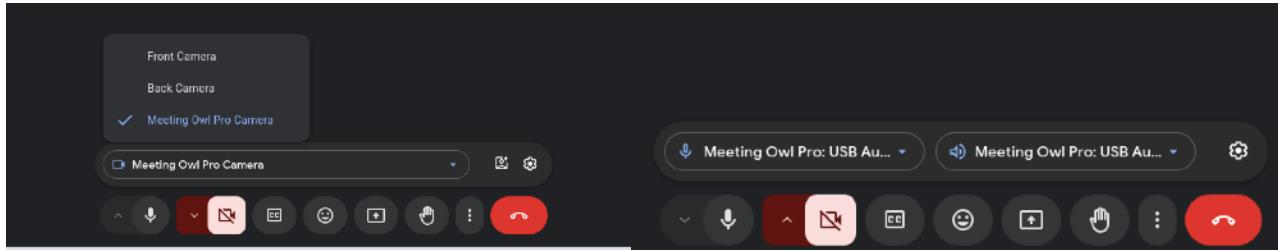
or you can watch this video.

[https://youtu.be/6WT_6r6bGq8?
si=PPKdyJ7XncRwAQXO](https://youtu.be/6WT_6r6bGq8?si=PPKdyJ7XncRwAQXO)

Remember when placing your OWL camera to put it nearly equal distance from all of the students on the call. If it is too close to one or two participants then in the full room ribbon and close up when they talk will just be the heads cut off above the eyebrows. Also, in the OWL Camera app make sure to set a "Ignore" zone in over the ClearTouch in the 360 image or when your guest speaks sometimes the OWL with focus on the screen instead of the participants.

This clip shows how this works [https://
youtu.be/dSeFYjuiAk8?si=jhD9e-
PkbePe2iva&t=280](https://youtu.be/dSeFYjuiAk8?si=jhD9e-PkbePe2iva&t=280)

Within Google Meet, make sure to have the OWL set as your camera, microphone, and speaker. If the forecaster has given permission to record the call, then follow the steps provided by Google (Anon. 2024)



Built-in recording features

1. Join or start a meeting in Google Meet
Click Activities in the bottom right corner
2. Click Recording
3. Select a language to record the meeting captions
4. Click Start recording
5. Click Start in the pop-up screen
6. To stop recording, click Activities > Recording > Stop recording



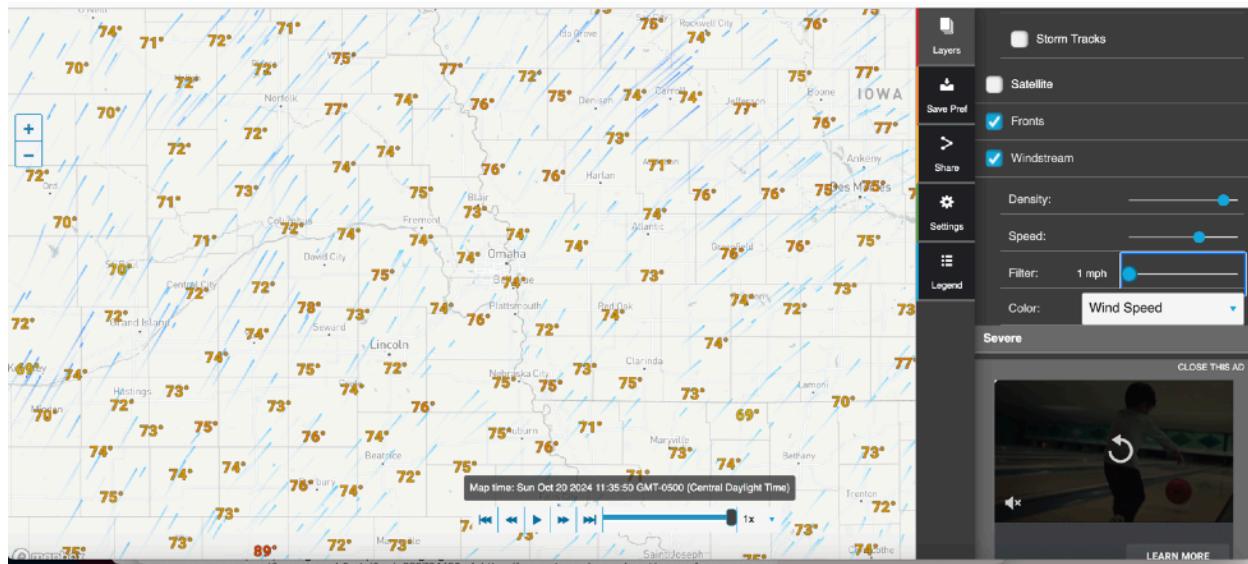
like a conventional video call with the guest speaker as the focus.

The picture to the left is a sample of what the guest speaker can see on their end of the call. The ribbon across the top is a 360 panorama of the room and the lower panes are areas where the up to three most recent speakers are shown. If a person doesn't speak for about 2 minutes will cause their pane to disappear and the remaining panes will resize to fill the screen.

The classroom side of the video looks

During the Lesson

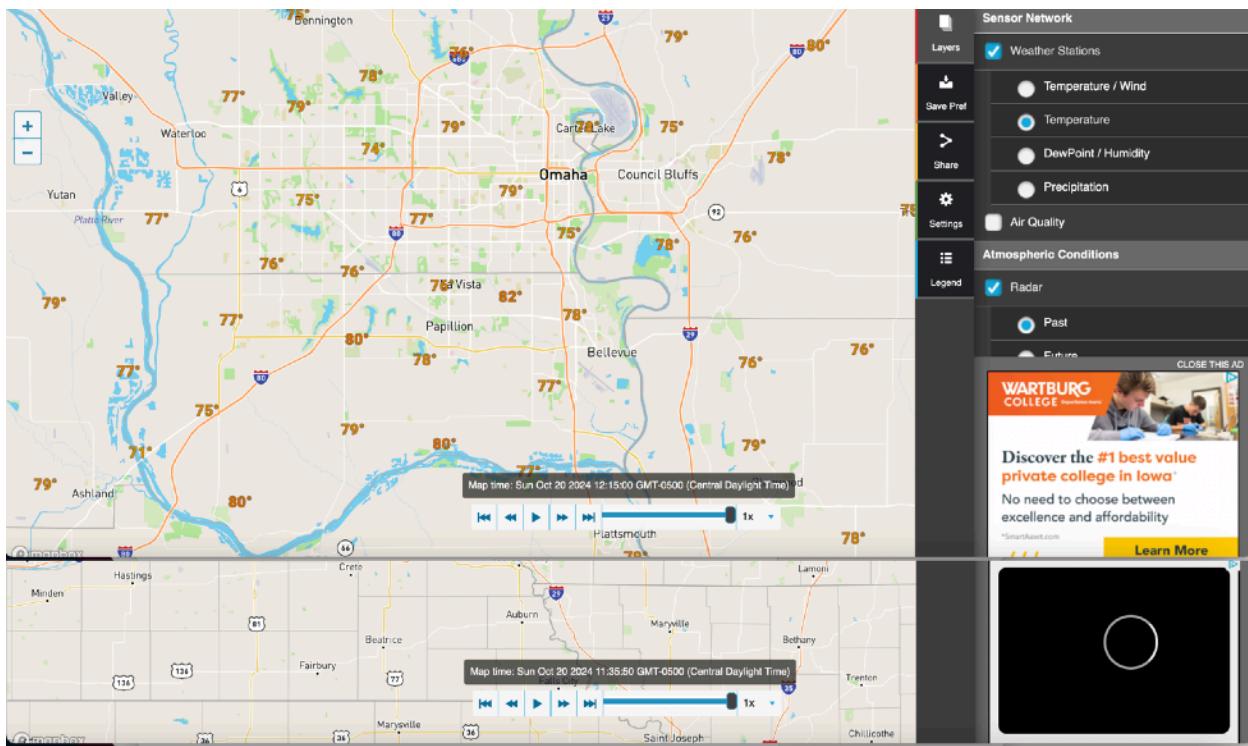
The students will be using WeatherUnderground <https://www.wunderground.com> to collect



the information about their city's next day forecast.

This organizer is useful to help the students collect the key pieces of information that they are going to need in their news broadcast. For students who are struggling in what to say the organizer can be used as sentence starters and notes during their recording.

City:	<NAME OF CITY HERE>		
High Temperature			
Low Temperature			
Wind Speed			
Wind Direction			
Pressure	Decreasing	Steady	Increasing
Precipitation Type			
Precipitation Amount			
Describe the Weather			



Assessment

Using the ClearTouch display instead of a green screen the students will make a 30 second forecast for tomorrow in their assigned city. On the screen open Weather Underground's Wonder Map for their city on the screen.

The student can modify the map as needed to show the information they want shown during their forecast. Below is the same area but showing wind direction and local air temperature. The 30 second forecast is recorded using the Chromebook's built in cameras. For anxious students who struggle with being on camera can do their forecast as a voice over is a successful option, just have the map zoomed in closer on the city.

The following day have the students compare their predictions with what actually happened. Have the students make reflections on what pieces of evidence was best for them making the predictions. Using the information from the forecasters and their new experience have the students make a checklist for how to predict the weather for their city. Look at the results from the students to share back with the forecasters

This is a new application of testing forecasting skills. Using video conferencing as a tool for connecting the students to local experts on forecasting by partnering with television forecasters in the students selected cities. This gives the students a real connection to the city instead of just an name on the map. For ease of use, the OWL camera is a plug and play device for running the video conference and Weather Underground website is set up for introductory use with availability of professional information. The instructor is not responsible for handling the updates on the website and the camera can do automatic updates if it is plugged in overnight.

Sources:

Anon. (2024). Google.com. <https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://support.google.com/meet/answer/9308681%3Fhl%3Den&ved=2ahUKEwi->

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