University of Maryland

Grand Challenges Grant

Maryland Agriculture and Climate Change

Citizen Science Competition

Welcome to the UMD Grand Challenge's Citizen Science Competition! This is an opportunity for students of the Department of Geographical Sciences to learn about and gain experience in field data collection, while also being able to earn extra credit, certificates, and other rewards.

The data you collect will be used to train models and validate crop type and cropland extent mapping throughout the state of Maryland for climate impact analyses to inform stakeholders and enhance decision-making.

How to play:

Earn points by collecting either:

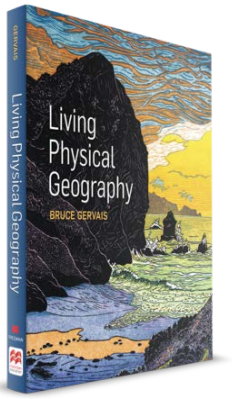
1) Field Observations	2) Field Boundaries
Collect points around the state of Maryland using the HarvestNow or Survey123 surveys.	Use the web tool to delineate field boundaries that other students have submitted through the mobile application.

The more you collect or interpret, the more points you earn, and you will rise up the leaderboard!

Thresholds for prizes:

Score	Reward
100	A certificate from the Department of Geographical Sciences
100 (up to 500 max)	1% extra credit in your participating class(es) up to 5% max

The top scorers each month will also receive additional prizes that will be announced on the leadership dashboard. The prizes for March are $25 gift cards to the University of Maryland Book Center, to be used towards an item of your choice.



The top three scorers of the semester will be recognized at the Department of Geography Awards Banquet in May and receive an additional prize.

Course-specific Prizes

Maximum Extra Credit	**Courses**
5%	GEOG156, GEOG301, GEOG306, GEOG373, GEOG417, GEOG473
3%	GEOG376
0%	GEOG140, GEOG172, GEOG201,

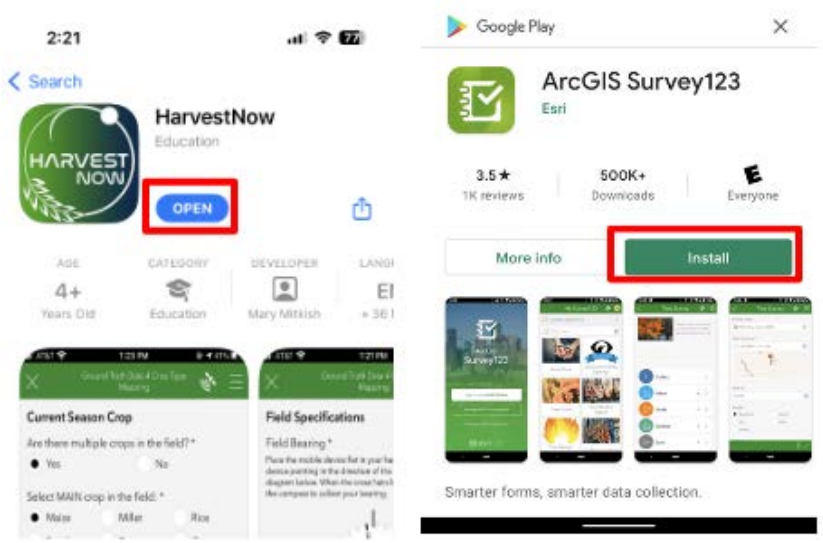
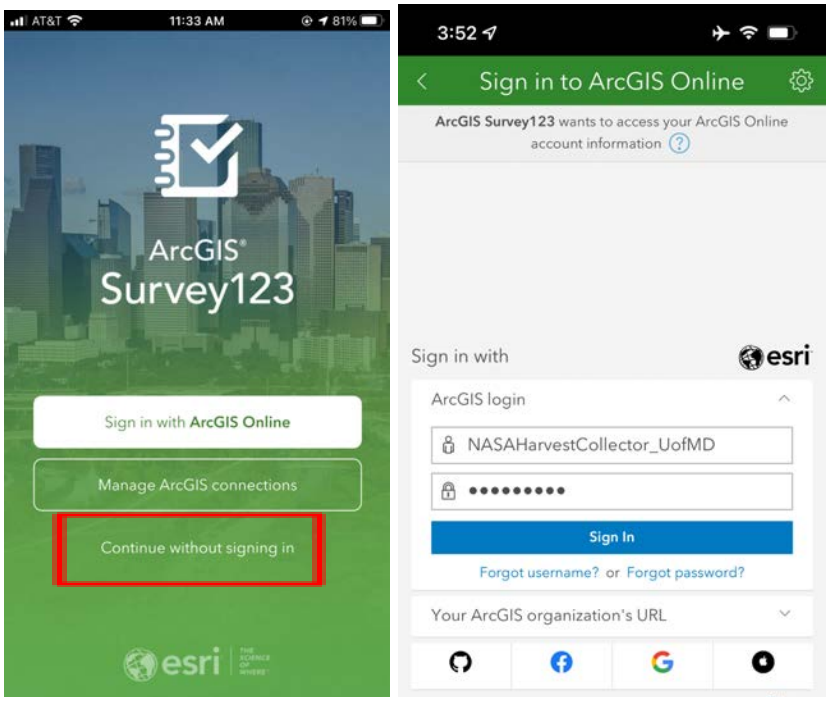
	GEOG212, GEOG331, GEOG333, GEOG398E, GEOG416, GEOG442, GEOG430, GEOG441, GEOG472
TBD	GEOG470

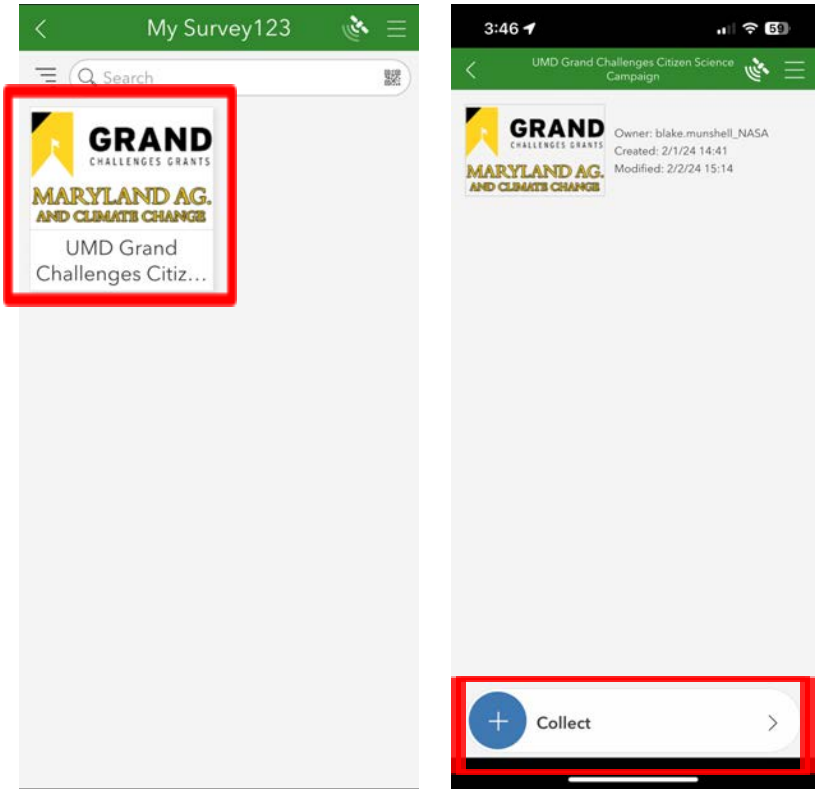
Disclaimer: The Department of Geography maintains the right to disqualify any students caught attempting to game the system from winning any of the prizes.

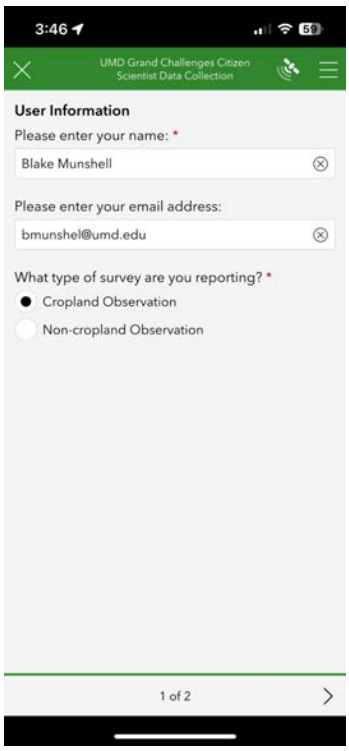
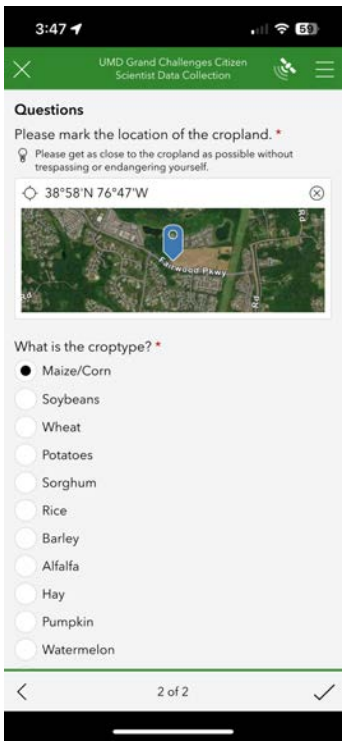
Instructions

For the video form of the instructions, watch this video:
https://youtu.be/dqawyQMI5Rw

Instructions for Option 1) Field Observations:

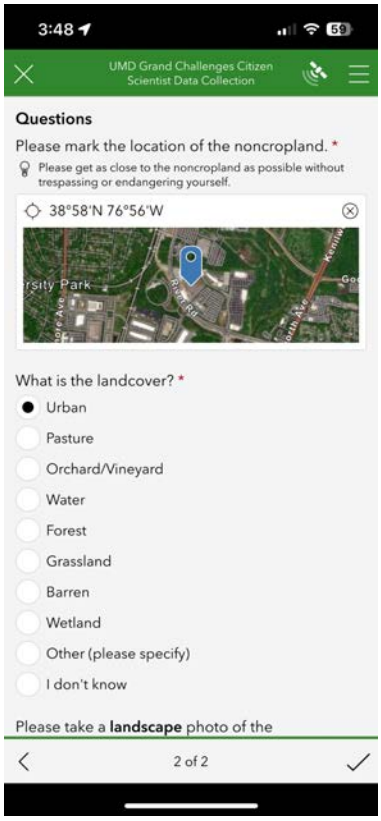
On the Apple Store or the Google Play Store, search for "HarvestNow" or "ArcGIS Survey123" (there is no difference). Download the application.	
Either sign in with your ArcGIS Online account or select "Continue without signing in".	

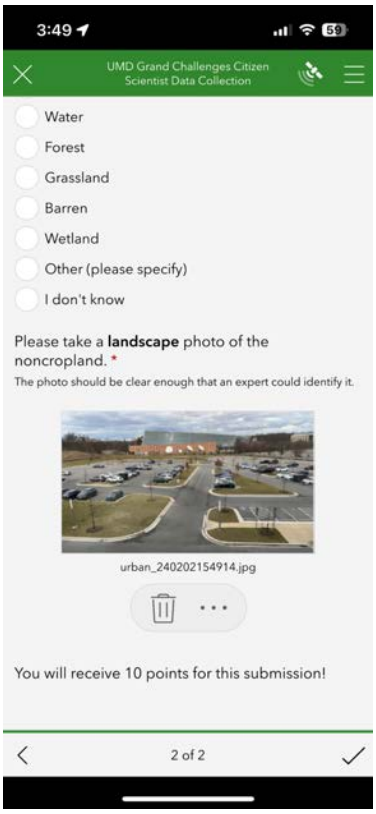
Once you are in the application, use the QR code option in the search bar and scan this code. OR Use this link: https://survey123.arcgis.app?itemID=cda785413ec849b3bebb6301d557461f	
Once you have the survey downloaded, click on the survey and then “Collect”.	

Once the survey is opened, fill out your name and email. You must spell your name and email the same, otherwise your score may not be tallied correctly. Also, indicate if you are making a cropland or a non-cropland observation. Cropland observations are more valuable, but it is important to get a mix.	
First, record your location by clicing on the target symbol ( ). You may see red or blue circles on the location preview. This indicates whether your score for that point will be negatively (red) or positively (blue) weighted. This is because we gain little information if the same field is visited twice in 2 days, but we gain lots of information if the same field is visited one month later. If you indicate a cropland observation, you will be asked to mark the croptype and take a landscape photo.	 

If you indicate a non-cropland observation, you will be asked to mark the landcover and take a landscape photo.

For both types of observation, you have the option to say you don't know. This is fine, but you will receive fewer points.

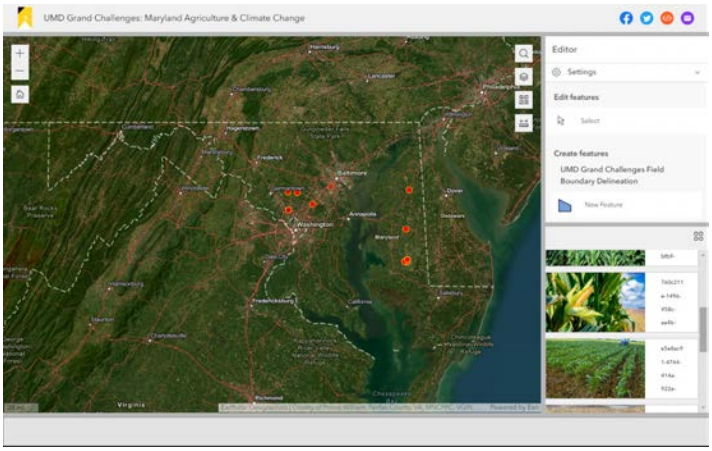
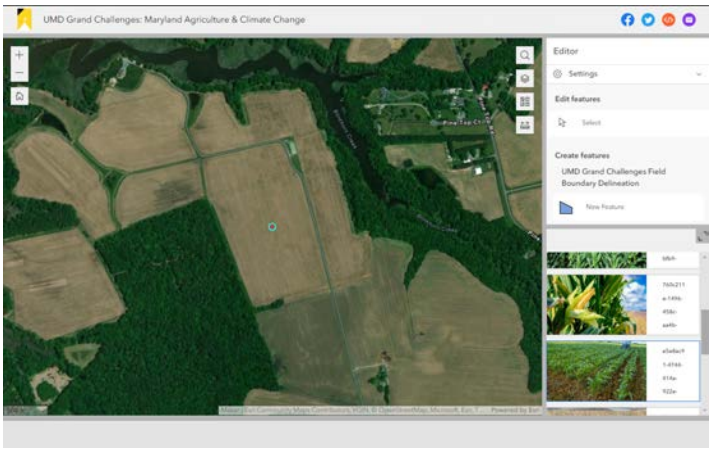


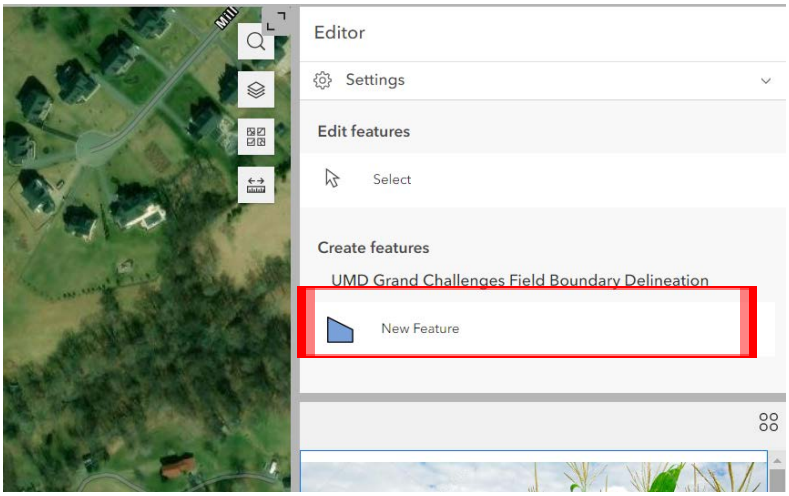
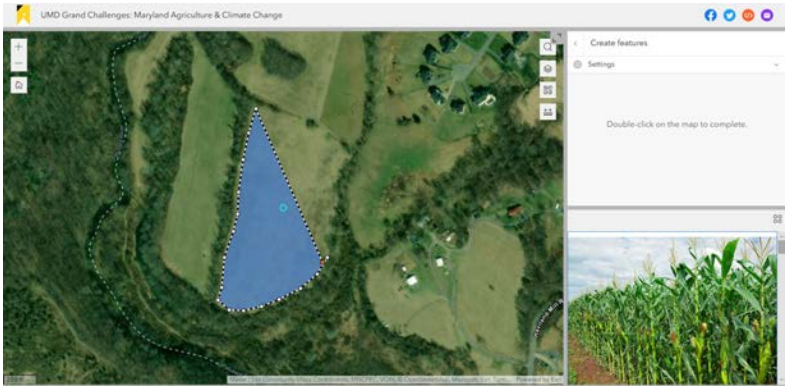


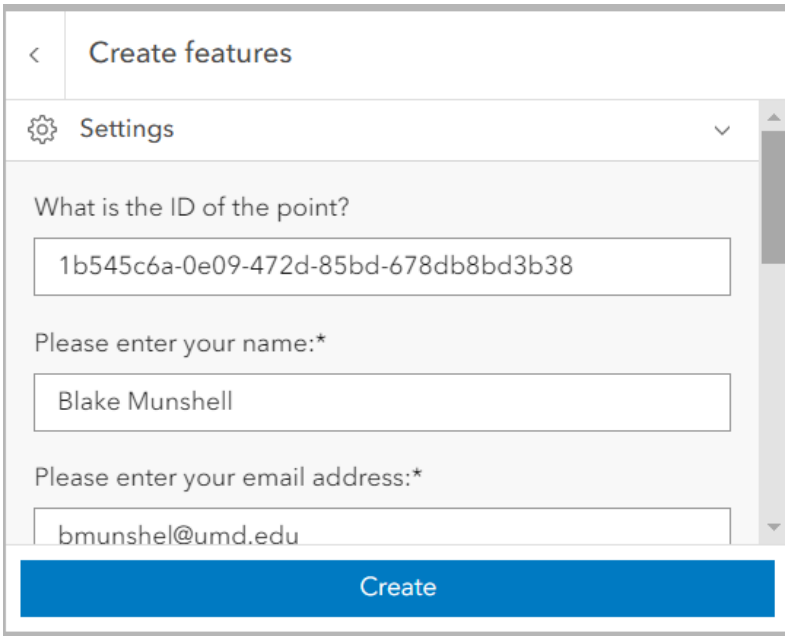
Click the check in the bottom corner and the "Send Now" option to submit your survey!

Points are calculated every night at 11:55 and are reflected in the leaderboard dashboard:

Instructions for Option 2) Field Boundaries:

Navigate to: https://experience.arcgis.com/experience/372c7a91e4c943c6a94257c6b2f849e6/ You will see the state of Maryland and the points that have been observed so far.	
Click on the images that your classmates have submitted on the right-hand side to zoom and pan to that location. If there is already a field boundary drawn, please select another image and point.	
Once you have selected a photo, double-click the string in the bottom left and copy it to the keyboard. You will paste this as the “point_id” when drawing the field boundary.	

Now that you have the point ID and are zoomed into your selected point, choose “New Feature” in the upper right.	
Click along the field boundary to add vertices. You should try to be as close to the edge as possible, and take your time. All of these will be checked for quality assurance, and points may be nullified if boundaries are rushed.	
First, paste the point ID into the first field. Then, fill out the rest of the information. Please do not attempt to guess if you are not sure.	What is the ID of the point? 1b545c6a-0e09-472d-85bd-678db8bd3b38 Please enter your name:* Blake Munshell Please enter your email address:* bmunshel@umd.edu What is the landcover?* Cropland What is the croptype?* Maize/Corn

Complete your drawing by selecting “Create” at the bottom.	

You can see the current standings, prizes, and weights on this dashboard.