

PlantingScience Liaison Manual - 2024



Liaison Manual

Last Updated: Jun 25, 2025 by JAB Hartley



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PlantingScience Overview

Plants are the planet's heartbeat. Their ability to capture energy from the sun and make it available as food is fundamental to supporting life on Earth. We also depend on them for medicines, textiles, building materials, and so much more! As we seek ways to address challenges from food shortages to combating global climate change, a solid understanding of how plants work and their needs is crucial to ensure a healthy, sustainable future.

Unfortunately, studies show that awareness of and appreciation for plants is vanishing for most of the public. Where previous generations engaged with plants regularly through casual play, gardening, and simply spending time outdoors, modern conveniences and sources of entertainment have enabled and encouraged an indoor-focused lifestyle. As a result, the phenomenon of 'plant awareness disparity', or PAD, has become a serious concern (Wandersee & Schussler, 1999; and Parsley, 2020). Plant-focused career sectors facing increased demand for workers are finding that the pool of eligible candidates is shrinking at an alarming rate (Sidoti et al., 2023).

For these reasons, promoting plant science literacy and careers with K-12 students must be prioritized. However, we know that doing so can be difficult. Popular K-12 curricula, resources, and training often lack plant-focused examples and activities (Uno, 1994; Stroud et al., 2022). Showcasing science careers in class encourages students to consider similar career paths (Blotnick et al., 2018), but access to this information can also be challenging. Finally, giving students opportunities to communicate directly with actual scientists is also an impactful way to help students see past limiting stereotypes about what sorts of people may choose science as a career (Sheffield et al., 2021), but finding scientists able and willing to engage with middle- and high-school students can also be problematic.

With these challenges in mind, the Botanical Society of America and its partners collaborated to create the PlantingScience program. By inviting plant scientists to mentor students, PlantingScience enables teachers to use plants to illustrate life science phenomena without necessarily needing to be plant experts themselves. This program combines plant-focused resources, lesson plans, and online conversations with real plant scientists. The program provides 6th-12th grade and undergraduate classrooms the opportunity to engage with plants and better understand who plant scientists are and what they do.

Purpose

The PlantingScience program was introduced in 2005 to allow scientists to engage with teachers and students. Since then, the program has expanded to embrace four primary goals:

- 1. Increase student motivation toward learning about plants.**

PlantingScience curriculum materials leverage plant phenomena to capture students' attention and promote curiosity.

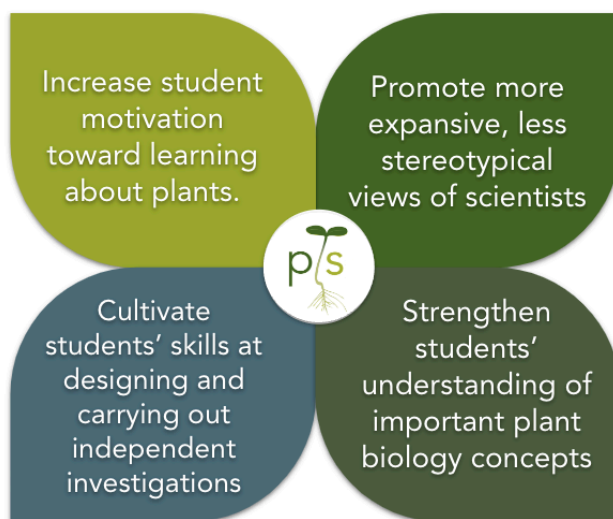
- 2. Strengthen students' understanding of important plant biology concepts.**

Each investigation theme addresses critical life science concepts to align with and support the curriculum teachers already use.

- 3. Cultivate students' skills in designing and carrying out independent investigations.**

Each investigation theme is designed around a guided inquiry model. A relevant concept or topic is introduced through class activities and demonstrations, and then students lead by designing and carrying out investigations that delve deeper into the concept. During this process, they emulate scientists' practices and strategies to expand our knowledge and understanding.

- 4. Promote more expansive, less stereotypical views of scientists.** As students develop and carry out their investigations, they will communicate with a Scientist Mentor with whom they will discuss their plans and progress. The mentor will provide guidance and share their own experiences with students.



The program was intentionally designed to equip teachers to bring more plant-based content into their classrooms, even with limited experience. Our program will enable teachers to bring plant science into focus in their classrooms in an inexpensive and accessible way and encourage students to notice the plants that live in their environment and the ways that we depend on plants every day. Our participating scientists appreciate the opportunity to share their work and potentially grow their field by encouraging students to consider pursuing their own science careers.

How it works

PlantingScience is a STSP, or Student-Teacher-Scientist partnership. The teacher and students work in the classroom while interacting online with a scientist who mentors the students.

PlantingScience mentoring takes place online through the PlantingScience website. Two mentoring sessions are held each year:

- The **Fall session** runs from the second week of September through the end of November.
- The **Spring session** runs from the second week of February through the end of April.



In the months before each session, 6th-12th grade teachers and undergraduate/community college instructors apply to have their students participate. In this application, they specify which investigation theme they will be using (see the following section for more information).

Selected teacher applicants will be given a 'Group' on the PlantingScience platform that facilitates communication between them and scientist mentors. Each group includes 'Project' pages where scientist mentors can communicate with their assigned team of students. Teachers and scientists communicate through a Group 'forum' (similar to a message board) while students and scientists communicate through their project 'Update Feed' (similar to a social media feed).

The mentoring takes place online and asynchronously. Students write messages to their mentors to provide updates and ask questions about the activities they are doing in the classroom. Scientist mentors respond with messages that offer encouragement, guidance, and glimpses into professional science work/research and career paths. To comply with student privacy laws, students are known only by their first names, and no private/direct messaging options are available.

Student projects may be nominated for Star Project consideration at the end of the session. The PS staff judges the nominated projects, and winners are featured on the PlantingScience website as exemplars for future participants. Each student in the winning projects receives prizes from PlantingScience.

Investigation Themes

Investigation Themes are mini-units comprising introductory activities and inquiry-based explorations around a given concept or topic. The following table lists themes available at the time of writing:¹

Theme	Topics Explored	Grades
Agronomy Feeds the World	food production, human impacts, natural resources	6-12+
Celery Challenge	osmosis, diffusion, transpiration, cells/tissues	6-12+
C-Fern in the Open	sexual reproduction, alternation of generations, life cycles	9-12+
Foundations of Genetics	traits, inheritance, environmental impacts on genetic expression	9-12+
Plants Get Sick, Too!	pathology, disease, microbial interactions with plants	9-12+
Pollen Investigations	symbiosis, ecological relationships, reproduction	6-12+
The Power of Sunlight	photosynthesis, cellular respiration, energy capture, and use	9-12+
The Wonder of Seeds	germination, cells and tissues, environmental impacts on growth	6-12+
Tree-Mendous Benefits of Trees	ecological services, human impacts on the environment, and natural resources	6-12+

The documentation for each theme includes information about aligning with state science learning standards² and guidance information for mentors.

¹ Themes may vary based on available resources. The most up-to-date list of Investigation Themes can be found by logging into the platform, clicking on 'Resources' in the top menu and then selecting 'Investigation Themes' from the dropdown.

² Many states use the [Next Generation Science Standards](#) or a modified version of them.

Investigation Theme Structure

PlantingScience's Investigation Themes are based on a **guided inquiry** model. This model balances top-down instruction on a topic with student-led learning.

Each Investigation Theme begins with a set of engagement activities that introduce students to foundational concepts, spark student interest, and generate testable questions around the topic of the Investigation Theme.



The students then work in 'project teams' of 3-5 to create their own investigation. Each team selects a testable question and proposes and carries out an investigation to answer it. **This is when Scientist Mentors' input and guidance are most beneficial, so students should reach out to their mentors frequently as they work.** During this phase, the teacher also shifts to a 'facilitator' role, providing guidance, materials, and support instead of direct instruction.

When the investigations are complete, the whole class reconvenes as each team prepares to communicate their findings. The teacher may have students create a presentation, write a report, or put together a poster. Students present what they learned to the rest of the class, and the teacher leads a synthesis discussion to connect students' discoveries to the central topic of the Theme.

Scheduling

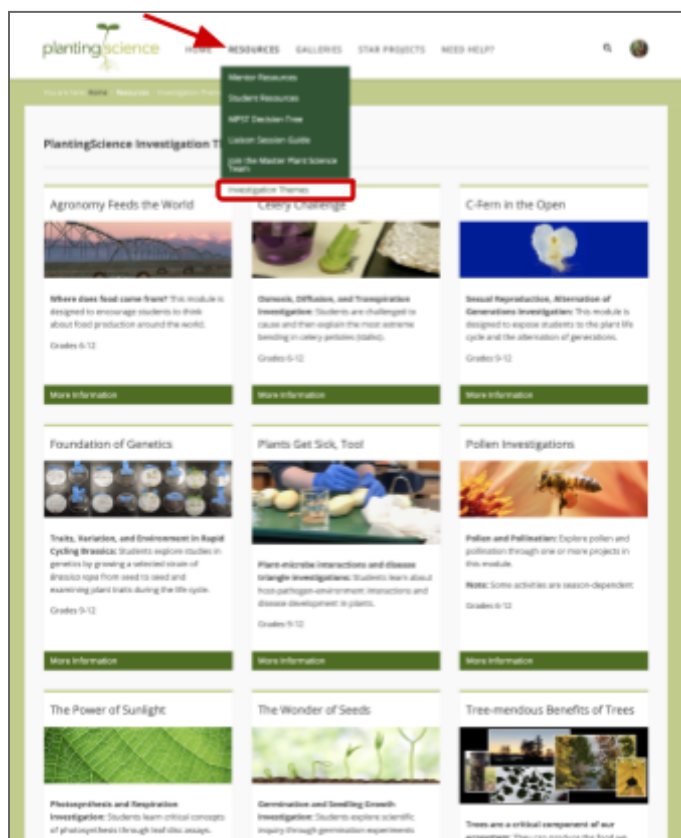
The amount of class time teachers spend on a given Investigation Theme can vary. Depending on the topic, some student investigations may take several weeks, especially if their project focus involves seed germination or phenomena tracked over time. Investigation themes are also, by design, flexible; teachers may add, remove, rearrange, or change activities as needed to address the needs of their students and schedule.

Where to Find Theme Materials

All materials and resources for each Investigation Theme can be accessed on the PlantingScience platform by logging in, clicking on 'Resources' in the top menu from the user dashboard, and selecting 'Investigation Themes' from the dropdown menu.

Click on the 'card' for each theme to learn more about it and download the resources provided to teachers. Most themes include:

- **A teacher guide** that describes the activities in detail.
- **A student guide** that includes any suggested handouts and readings students may need during the activities.
- **A mentor 'tip sheet'** that provides an at-a-glance overview of the Theme and coaches mentors regarding what to expect.
- **Additional resources** (video links, websites, etc.) as appropriate.

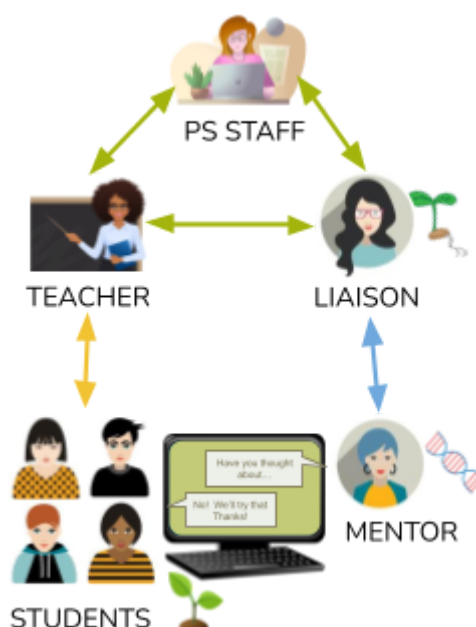


All PlantingScience curriculum materials and resources are available to our teachers and scientists under a [Creative Commons BY-NC-SA 4.0 license](https://creativecommons.org/licenses/by-nc-sa/4.0/).

What is a Liaison?

The 'liaison' role is an administrative role that supports the teacher and PS staff and facilitates communication between them and the Scientist mentors. Liaisons may be members of the PlantingScience Master Plant Science Team (MPST), members of the PlantingScience staff, or early career scientists participating as 'PlantingScience Fellows' in a research initiative.

Liaisons are assigned to 1-2 teachers per session. Their permissions level is the same as the teacher's, so they have the same capabilities concerning project setup, mentor management, monitoring mentor-student communications, and recommending projects for recognition that a teacher has. This enables a liaison to provide valuable support and oversight to keep conversations between mentors and students moving effectively.



Typically, a liaison will fulfill the following responsibilities:

- **Connecting with the teacher before the session** to get a sense of the teacher's planned instruction schedule, what the teacher hopes students will gain from the mentoring experience, and any special considerations that should be considered.
- **Inviting mentors and assigning them to student teams.**
- **Monitoring project feeds** once conversations are active,
- **Communicating with mentors** via the group forum or email to ensure conversations run smoothly.
- **Subbing in for mentors who have to step away** while students are active.
- **Submitting a weekly report to the PlantingScience staff** to update them on project progress and potential issues.
- **Nominating student teams for Star Project consideration** when projects are complete.



Because the time commitment for a liaison is greater than that of a Scientist Mentor, MPST members are sponsored by our partner organizations and receive perks related to their sponsor. Research fellows may receive stipends.

Scientists who serve groups as Liaisons are also welcome to serve as Scientist Mentors while performing liaison duties if their schedules allow. However, remember that you may need to step in and support student teams if their Scientist Mentor has to step away or goes quiet. Therefore, take care to budget your time and availability in case this becomes necessary.

Using the PlantingScience Platform

About the Platform

The PlantingScience platform was developed in 2016 using the HubZero content management system (CMS). This platform was designed to serve as a social media platform to support collaboration in science research, and you will still find some features of the platform that served this original purpose. However, with the help of the HubZero team, we have adapted the original CMS into a platform that allows our mentors to communicate easily with students without compromising student privacy and safety.

Navigating the Platform

The user interface of the PlantingScience platform is organized into three key areas, each of which provides various essential functions during a PlantingScience session.

The User Dashboard

Once logged in, you can access your user 'dashboard' from anywhere on the site by clicking on your icon in the upper right corner of the screen. This screen will also be your landing page when you log in.

The **top menu** provides access to resources, tools, and content that apply generally to users like you.

The **side menu** gives you access to your account and information specific to you:

- **Profile** - Here, you can update your user profile, including uploading a photo. Completing these fields helps teachers and students get to know you better.
- **Account** - Update/change your password here.
- **Collections**—This area allows you to store files, sample post text, and other information you may want to use during multiple sessions.
- **Groups** - You can find current and past sessions' groups and projects here.

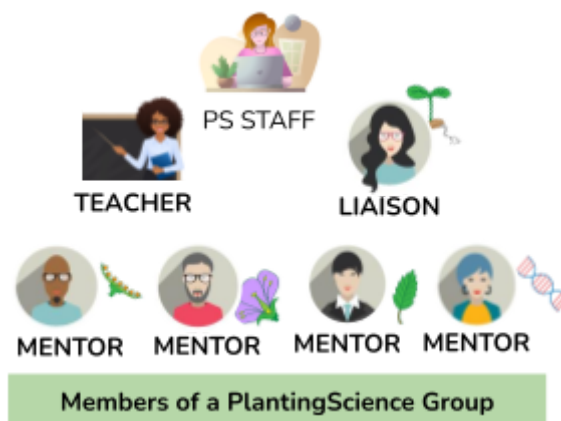


The central panel is divided into module boxes. The middle ‘News’ row will be updated periodically with announcements and important updates.

The bottom boxes provide convenient access to **active groups and projects** during a given session and give an overview of project activity.

The Group Page

A ‘Group’ in PlantingScience comprises the Teacher, Liaison, Scientist Mentors, and PS staff members working with students using a specific Investigation Theme. A Group will support all of a given teacher’s student teams using the same Investigation Theme, even if the students in those teams happen to be in different class periods. All group members can access a Group Page on the PlantingScience platform.



The Group Page displays an overview of the classes participating in the session. This information comes from the teacher’s session application and can be adjusted or changed.



The side menu of the Group page includes a member list, communication tools, access to student projects, and activity reports.

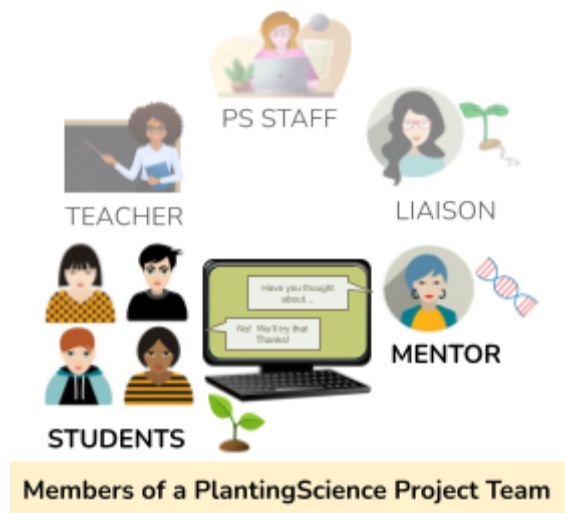
These will be discussed in more detail later in the manual.

Note that students are NOT members of the Group. This restricts students' interactions on the platform to project pages (see below). As a result, **the information, messages, and files that are accessible on the Group page are not accessible to students.**

The Project Page

Student teams will each be assigned to a **'Project'** on the PlantingScience platform. Each team will include the students, their Scientist Mentor, the Teacher, the Liaison, and the PS staff.

The Project page is where the mentoring activity takes place. Fields are provided where students can report the progress of their investigation, and an **'Updates'** area is provided to allow students to exchange messages with their mentor in a feed.



As a Liaison, you can access all projects in your Group. You can also interact with and monitor all projects. **Students and Scientist Mentors can only see the projects to which they are assigned.** The Project page will also be discussed in more depth later in this manual.

Other Key Parts of the Platform

The other areas of the site with which you may want to familiarize yourself include:

- **The Home Page** -- the public-facing page of the PlantingScience platform.
- **Galleries**—PlantingScience galleries are available from the top menu and showcase lists of our participants and past work.
- **Need Help?** -- The help page provides means of seeking help from the PlantingScience staff if you get stuck. Please feel free to email us, text us, or arrange a time to meet via Zoom if you think it would be helpful! We are happy to guide you and answer any questions you have.

Getting Started

Approximately two weeks before the start of the session, you will receive an email from the PlantingScience team for each teacher you'll be working with. This email will contain:

1. The name and contact information for your assigned Teacher.
2. The Investigation Theme they will be using in the classroom.
3. A link to the "Group Page" for that Teacher.

The Group will also appear under 'My Groups' on your user dashboard on the PlantingScience platform.

Connecting with your Teacher(s)

You will want to contact your partner teacher(s) as soon as possible, either by responding to the introductory message using 'Reply All' or by reaching out directly to the teacher email address provided. (The teacher may also reach out to you.)

Depending on availability, you may discuss the teacher's plans via Email, phone, or a video conference³. Since Teachers and Liaisons share the responsibilities inherent with setting up the platform and working with the Scientist Mentors, you and your partner Teacher will want to talk through the following:

- The teacher's planned instruction schedule, especially when they plan to bring students online.
- How often will students post once they begin their independent investigations?
- What setup tasks will the teacher perform, and which will you perform?

The following document can be a good guide for your initial conversation: [PlantingScience Presession T/L Discussion](#).

Please read through the [Investigation Theme](#) materials and information in the following section before the discussion.

Platform Preparations

These tasks should be completed before students log into the platform for the first time. Teachers and Liaisons have the same level of access to complete these actions, though, as noted below, certain tasks fall more comfortably under one role than the other.

³ If you would like PlantingScience to set up a Zoom meeting for you, let us know at psteam@plantingscience.org.

Updating the Group Page

The 'Group page' is the landing page that enables teachers to coordinate class activities on the platform. A detailed video walkthrough of this page can be found on our YouTube channel (<https://www.youtube.com/@plantingscience>), but the diagram below explains the features with which you will want to become most familiar:



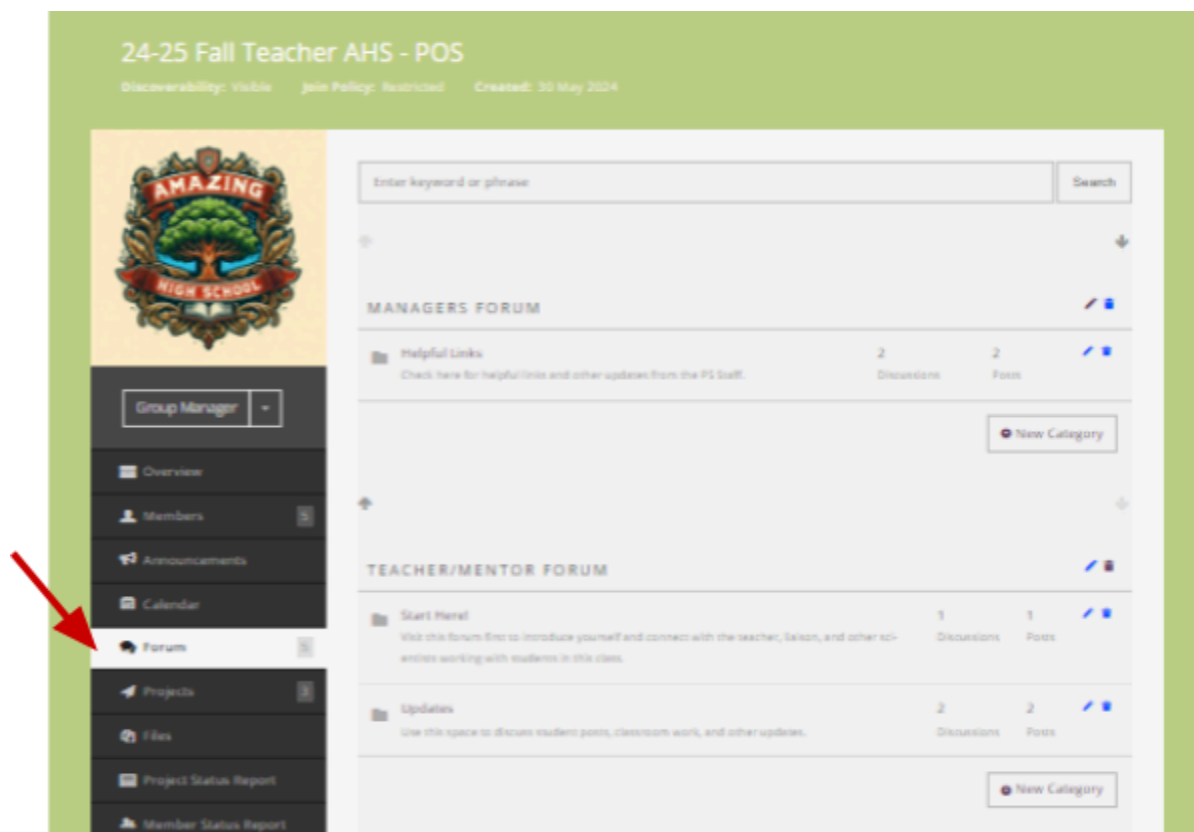
The information on the main Overview page was preloaded based on the information the teacher provided in their application. Scientist mentors reference this information so that they know when to be available to students, what the class is studying, and what aspects of the content they should emphasize in particular.

Please make sure that the 'Planning to Start' date reflects when students are expected to log in for the first time (as opposed to when the teacher intends to start using content materials in class). As circumstances in a typical middle- or high-school classroom can be unpredictable, this information may change as the class nears the point where they will begin. If this or any other information listed here needs to be changed at any moment, click on the **'Group Manager' dropdown menu under your class image** in the upper right and select **'Edit Group Settings'** as shown on the right.

This will take you to the edit page. Once you have made the changes you wish to make, **scroll to the bottom of the page and click SAVE CHANGES.**

Preparing the Group Forum

This message board is provided to facilitate communication with Scientist Mentors. It can be accessed from the Group page by clicking **'Forum'** in the side menu.



The Group Forum is organized into a hierarchy as follows:

- Section
 - Category
 - Discussion
 - Posts

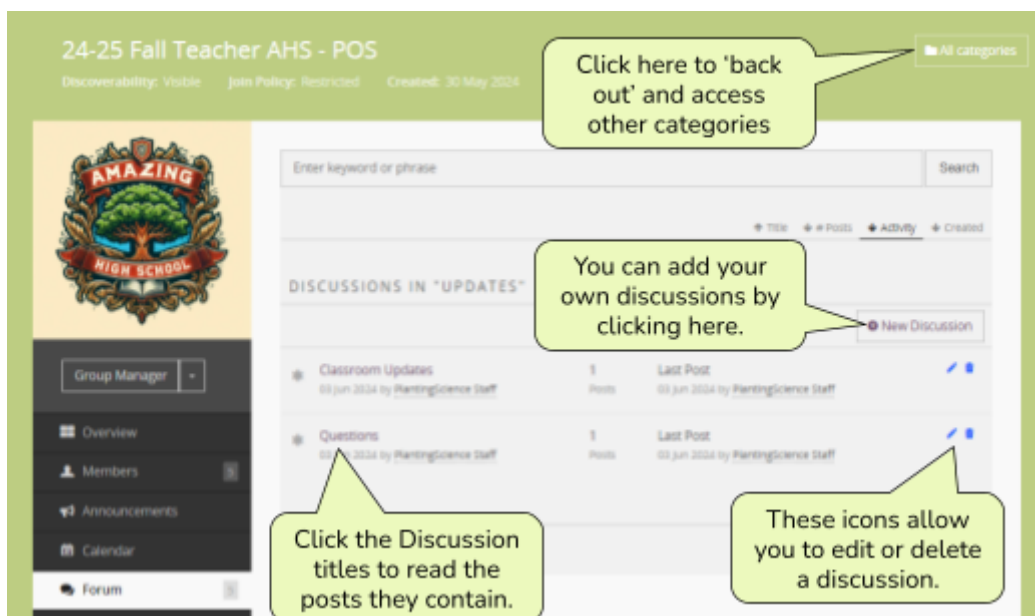
When you receive your Group page link from the PS Team, you will find that a basic set of Sections, Categories, and Discussions have already been created for you. These may vary but typically include:

- A discussion titled **'Start Here!'** prompting users to introduce themselves.

- A discussion of **Classroom Updates**.
- A discussion for **Questions**
- One or more discussions posted by the PS Staff providing **Helpful Links**.

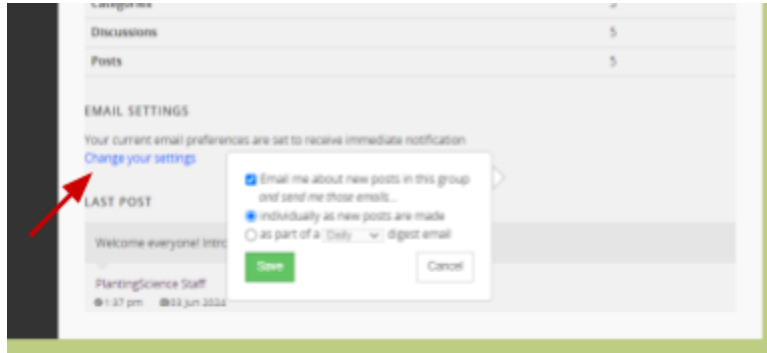
Click the category and discussion titles at each level to read the posts they contain. To 'back out' to a higher level of the hierarchy, look for the 'All Discussions'/'All Categories' button in the top right corner of the site. As a Liaison, you can add new discussion topics, edit or delete existing discussions, etc.

A critical feature of the Forum is that **every message posted here is emailed to every Group member**. Any communication intended for a limited audience (e.g., concerns about a specific Scientist Mentor) should not be posted here.



The Forum will generate quite a bit of email for the team throughout the session. If this is a cause for concern, you can adjust your forum email settings at the bottom of the main forum page. Clicking on 'Change your settings' will offer to shut off forum messages entirely or ask the system to send them to you in digest form⁴.

⁴ Please note - these settings ONLY apply to Forum messages, and do not affect emailed alerts sent by other parts of the platform.



Before the session begins, make sure the following information is posted to the forum:

- **Under 'Start Here!'**

- **Your introduction**

This sets the introduction discussion in motion and gives your incoming Scientist Mentors a model to follow. Use this opportunity to explain your role and what Mentors can expect from you. [Sample text](#) is provided in the appendix.

- **Under 'Classroom Updates'**

- **Schedule**

This post should provide an overview of the planned instruction schedule, including when students will complete the introductory activities, log in for the first time, start their projects, and expect to be finished.

- **Available Resources**

The teacher is best positioned to share this information; you may be asked to post on their behalf. Some critical information to provide includes:

- How much time do students have to conduct their investigations? (e.g., when is your 'hard stop'?)
- What, if any, plants or seeds are available?
- A list of the consumable materials students may use, including limits. (e.g., every team is limited to three plastic cups.)
- What space and equipment are available, including lights, thermometers, test tubes, etc?

- **Under 'Questions'**

- **Need to step away?**

This post gives Scientist Mentors who know they have upcoming trips or obligations that may keep them from posting a way to to let you know ahead of

time. Feel free to use the sample text provided below and customize it as appropriate:

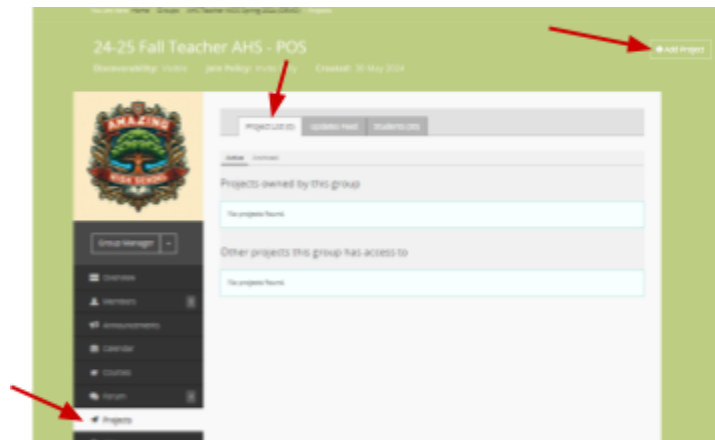
Hi Mentors! As the Liaison for [Group], I can post messages to your student teams if you need to step away for any reason. Just let me know when you will be unavailable by posting a message below. I will make sure your students are mentored while you're away. Let me know how else I can help!

Creating Projects

Each 'team' of 3-5 students will be assigned to a Project on the platform where they will interact with their Scientist Mentor and report their progress on their classroom investigations.

Creating Projects is a task that typically falls to the TEACHER, but Liaisons may complete these steps as well.

To create the Project pages, log into the PlantingScience platform, navigate to your Group page, and click '**Projects**' in the side menu. This will bring you to the Projects pane, which will look similar to the image below. Ensure you are on the "**Project List**" tab and look for the '**Add Project**' button in the upper right corner as shown.

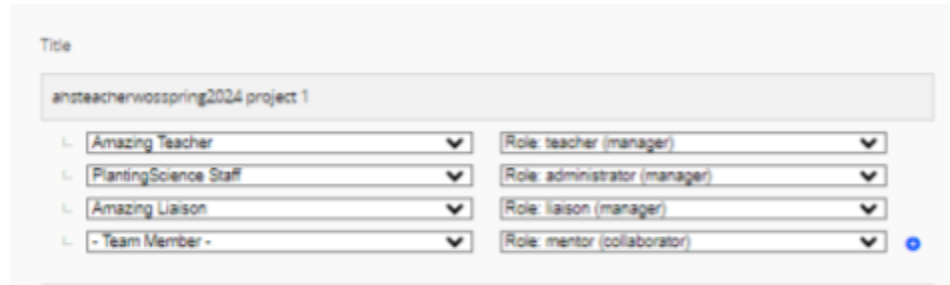


Clicking 'Add Projects' will bring you to the screen below. **Enter the TOTAL number of projects** you will need for all classes participating in the selected investigation theme, then click **Add**.



This will 'draft' the projects, but **they will not be created yet**.

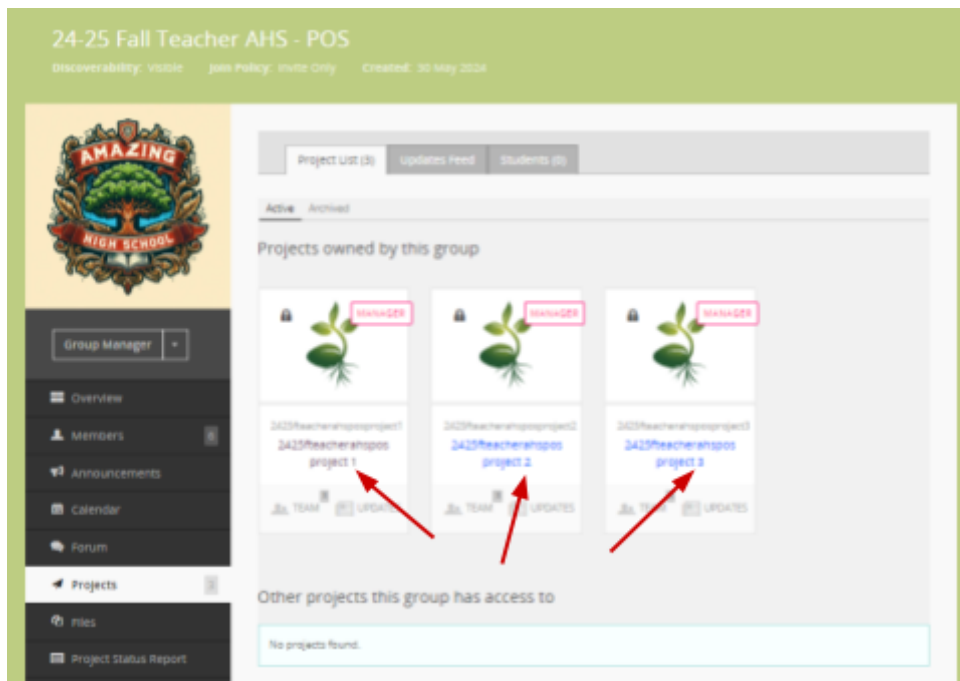
Specific roles—the Teacher, Administrator, and Liaison—will be automatically assigned to the appropriate members of your group. If you have already lined up Scientist Mentors (which is rare at this stage), you can select a mentor for the team in the dropdown provided. If not, just leave the role unassigned for now.



The screenshot shows a form titled 'Title' with a text input field containing 'ahsteacherwospring2024 project 1'. Below this are four rows of dropdown menus for assigning roles to team members. The first row is 'Amazing Teacher' with a role of 'teacher (manager)'. The second row is 'PlantingScience Staff' with a role of 'administrator (manager)'. The third row is 'Amazing Liaison' with a role of 'liaison (manager)'. The fourth row is '- Team Member -' with a role of 'mentor (collaborator)'. A green plus icon is visible at the bottom right of the form.

When you have finished making changes (if any) to the project list, **click the green 'Create' button at the bottom of the page**. This will create the project pages for each team.

NOTE: You can add more projects later if needed, but you cannot delete extras. If you end up with projects you don't need, simply contact the staff at Psteam@plantingscience.org, and we'll be happy to remove them for you.



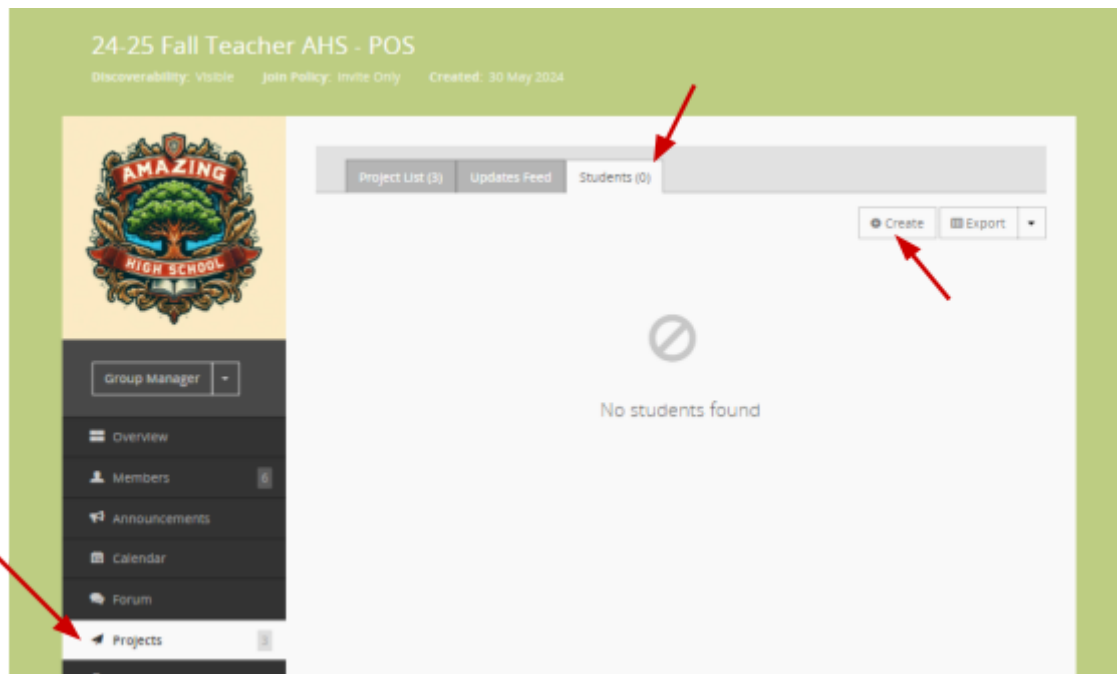
The projects will appear on the 'Project List' tab as 'cards'. Click on the project card to access the project page.

Creating Student Accounts

Once your projects are created, student accounts can be created. As you might expect, **this task typically falls to the TEACHER, but the instructions are provided here so the Liaison can help as needed.**

From the Projects screen, **click on the Students tab at the top of the pane.** This tab is where you can add or edit student accounts throughout the session.

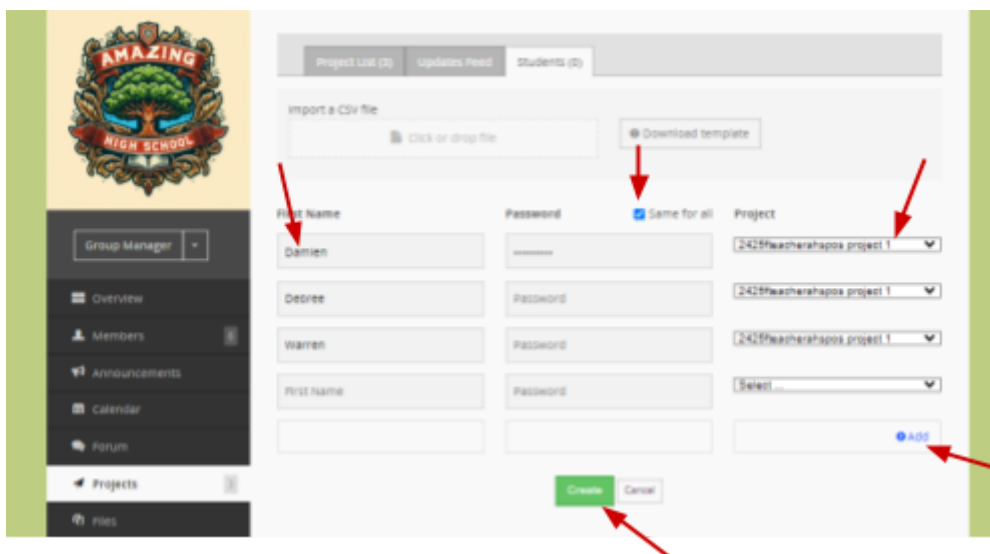
Look for the **'Create'** button in the upper right corner of the pane. This will take you to the student account creation pane.



Some tips to keep in mind while creating student accounts:

- **We recommend entering the same password for all students.** Your teacher will have a much easier time helping students log in for the first time if they use the same password. Students will be prompted to change their passwords after they log in for the first time.
- **Make sure no two students have the same "first name."** To protect [student privacy](#), use only students' first names when creating their accounts. (Nicknames may be used if preferred.) Each student must have a unique name.

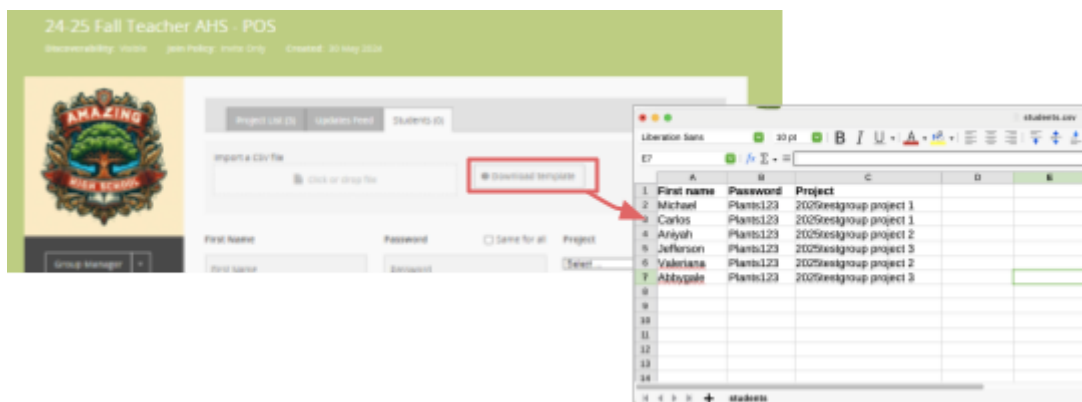
Adding students individually



If the class comprises fewer than 15 students, you can add students by entering their first name, entering a password of your choice, and selecting the team to which they should be assigned. Click 'Add' to create more rows as needed, and click 'Create' when finished.

Adding students in a batch upload

If you have many students, creating student accounts by uploading a CSV file may be easier. Click the 'Download Template' button at the top of the pane to download a simple spreadsheet. Enter each student's first name and password, as well as **the name of the project** to which you want them to be assigned, and then save the file as a .csv file.



Upload the file to the platform by clicking the 'Click or Drop File' area and navigating to your saved .csv file. Once the file is uploaded, the student accounts will appear in draft form below. Click 'Create' at the bottom of the page to create the accounts.

Working with Scientist Mentors

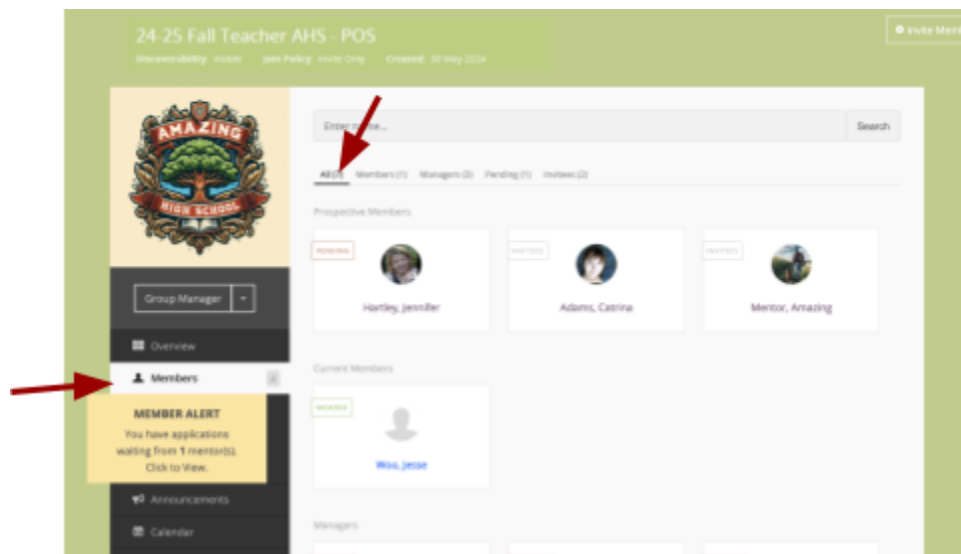
Scientist Mentors must be members of the Group before they can be assigned to student projects. By default, all Groups in PlantingScience are set with a 'join policy' of 'Invite-Only.' Scientist Mentors can only join if they have received and accepted an invitation.

The LIAISON is usually responsible for identifying appropriate mentors and sending invitations. However, the Teacher may request to handle this setup aspect if they are experienced with PlantingScience and have specific mentors in mind.

IMPORTANT: For best results, begin inviting mentors 2-3 weeks before you expect students to log in for the first time. This will allow enough time for mentors to respond to invitations and additional invitations to be sent if needed but will avoid making mentors wait long before students begin posting.

Group Members

You can see what mentors are currently a part of your Group by logging in, navigating to the Group page, and clicking on '**Members**' in the side menu.

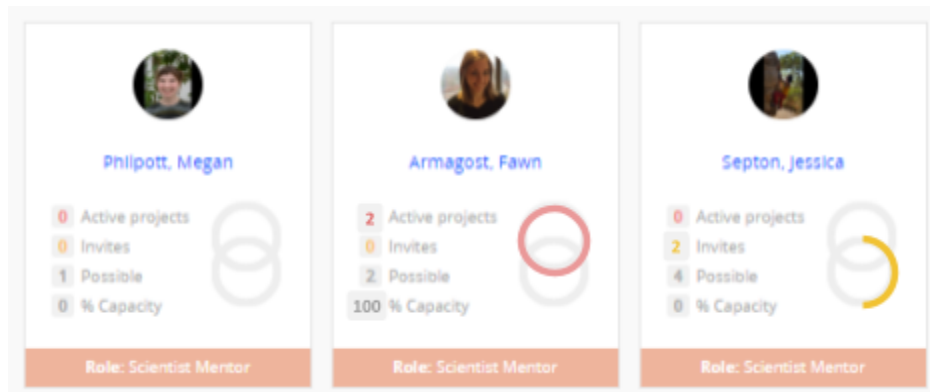


The 'All' tab provides an at-a-glance view of your group's membership. **Prospective members** are listed in the top section. Scientist Mentors who have successfully joined appear in the '**Current Members**' section, and the **Managers** (Teacher, Liaison, and PlantingScience staff members) will appear at the bottom.

These groups are broken out across the remaining tabs. Each will be useful at different points in the setup process.

Lining Up Scientist Mentors

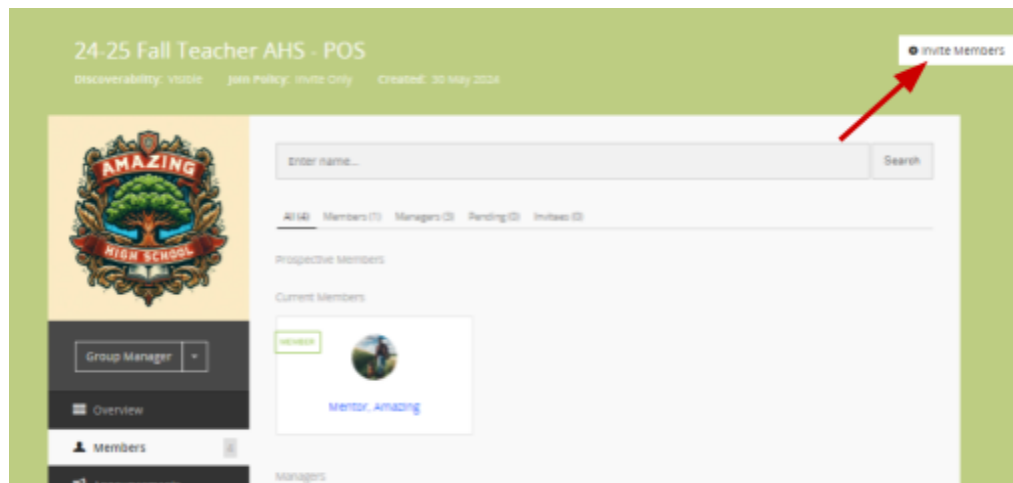
Lining up mentors is typically the LIAISON'S responsibility. Prospective Scientist Mentors are displayed in the Scientist Gallery, which can be found under 'Galleries' in the top menu. Each will appear as a 'card' like those shown below. You can click on the scientists' names to view their profiles.



The circles at the bottom of each card are designed to give you an at-a-glance indication of the scientist's current availability. The **red ring** at the top indicates how many active projects the mentor has committed to as a percentage of their total capacity. The **yellow ring** below shows how many invitations have been sent to them and are awaiting a response.

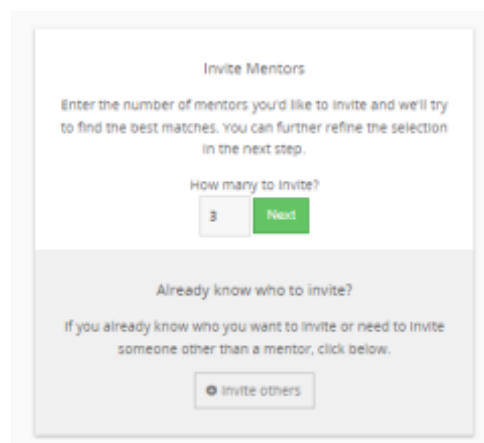
Using the Invitation Wizard

The easiest way to find and invite mentors is to click the 'Invite Members' button at the top right corner of the Members page.

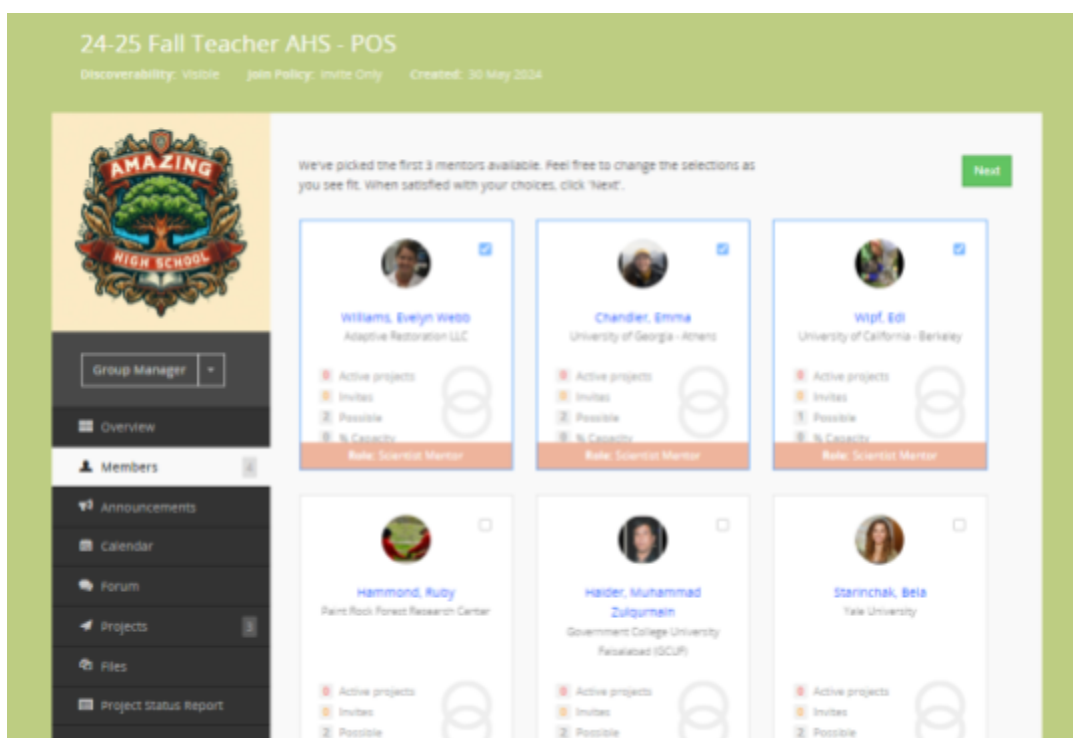


This will bring you to the Invitation Wizard, which will prompt you for the total number of mentors you need to invite.

We recommend inviting **only as many Scientist Mentors as you have project teams**. While inviting more than you need may seem wise in case your invitations are declined or remain unanswered, doing this will require you to pay careful attention to your Group membership so that you can quickly cancel any extra invitations when you have successfully recruited the mentors you need. (While the PlantingScience team can work with you to direct extra mentors to other groups, being reassigned is often frustrating for mentors, and we try to avoid this as much as possible.)



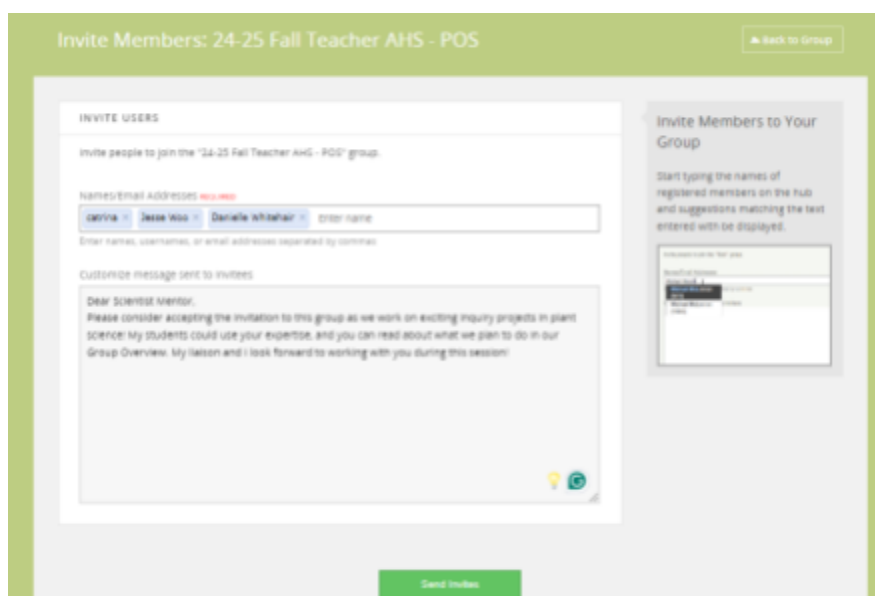
Clicking 'Next' will bring you to a modified version of the Scientist Mentor Gallery:



This gallery is filtered so that the only mentors who appear have indicated they are available, comfortable with the Investigation Theme, and willing to mentor students at your grade level. In addition, the list is sorted so that the mentors who have most recently received invitations are at the bottom, making those at the top the most likely to accept.

The system will have marked the top candidates for you by checking the boxes in the upper right corner of each mentor's card. You are welcome to proceed with these mentors or to browse the gallery and select others if you wish. Click on the mentor's name to see their profile and read about their research interests and background. Click the checkbox on their card to add or remove mentors from your invitation list.

When you have selected the mentors you wish to invite, click '**Next**' in the upper right corner to proceed. You will be taken to the Invite Members screen with the selected mentors' addresses preloaded into the 'Names/Email Addresses' field:



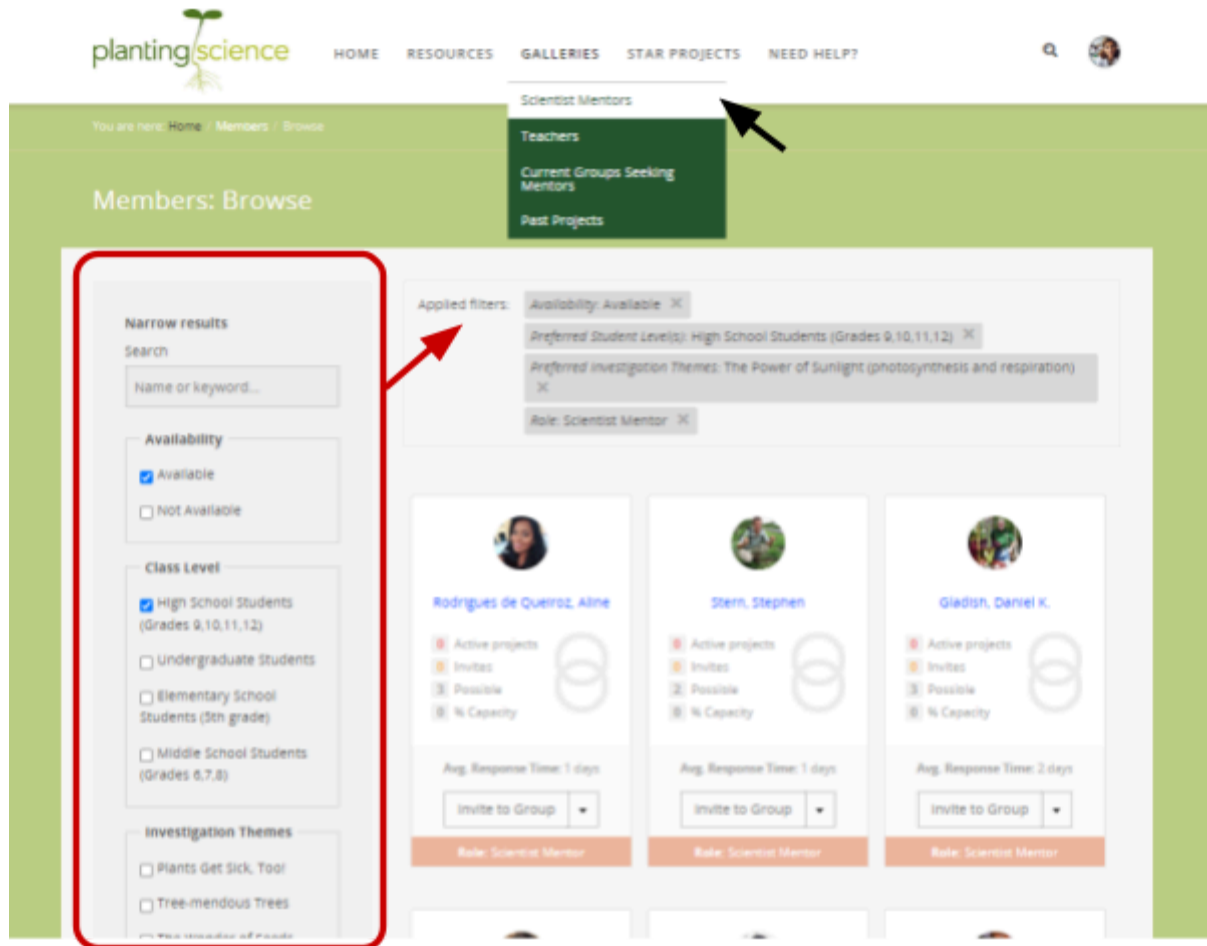
The message in the box below the addresses can be sent as-is or customized according to your preference. When you are ready, click '**Send Invites**'.

Inviting through the Scientist Mentor Gallery

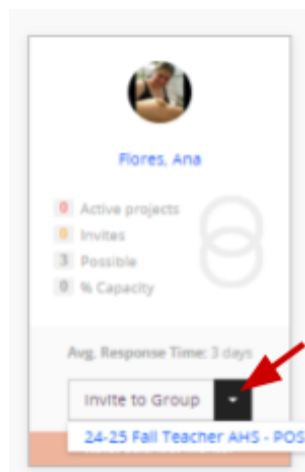
You can also invite mentors individually through the Scientist Mentor gallery. This method is more time-consuming but will allow you more options for filtering and sorting the scientists to find mentors who meet students' needs.

Click '**Galleries**' in the top menu and select '**Scientist Mentors**' from the dropdown:

The left side of this gallery lists filtering criteria that include not only the mentors' comfort level with various content and student grade levels but also their career stage, command of various languages, and comfort level working with groups with special needs. As before, you can also click a scientist's name to view their profile and read more about their work and background.

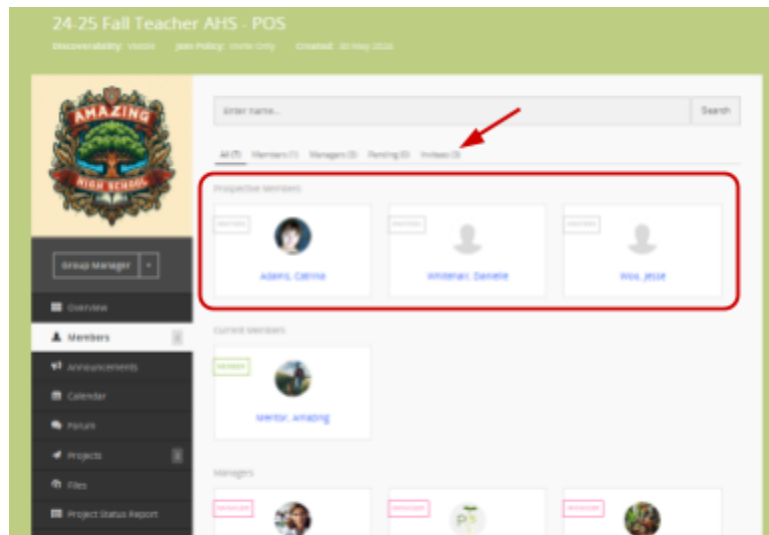


When you identify a mentor you want to invite to mentor your students, click the **'Invite to Group'** dropdown at the bottom of their card. The names of all of your active Groups will appear. **Click on the group name** to which you want to invite the mentor. The invitation dialogue will appear, allowing you to customize the text if desired. Click **'Send Invite'** to send the invitation.

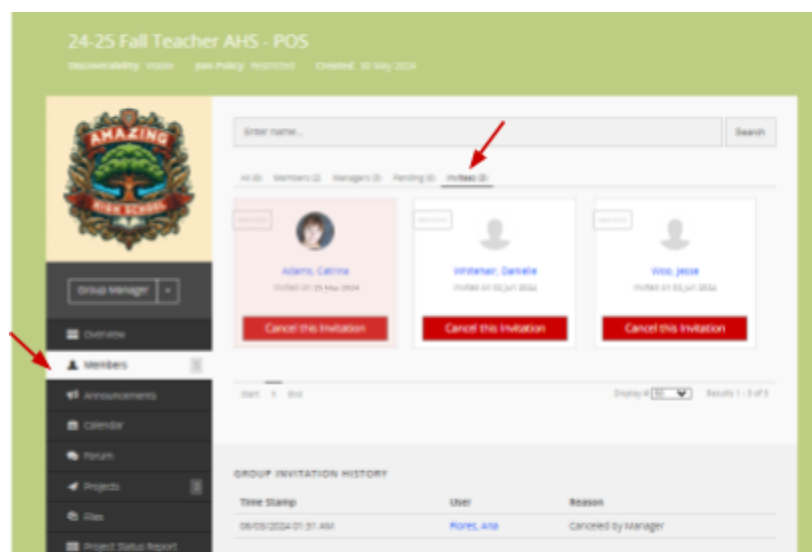


Managing Invitations

The invitations will be sent both through the platform and by email. Until they respond, the mentors you have invited will appear in the 'Prospective Members' section of the 'All' tab of the Members page and on the Invitees tab.



You should check in on your PlantingScience group daily to see how many mentors have responded to invitations. Go to the Group page and click **Members** in the side menu, then on the **'Invitees'** tab:



Invitations that turn **pink**, like the one in the example, have ‘gone stale’—they have not received a response within five days. This can happen for many reasons, but to ensure that enough Scientist Mentors are available to work with your teams, **we advise that you cancel any stale invitations and invite other mentors instead.**

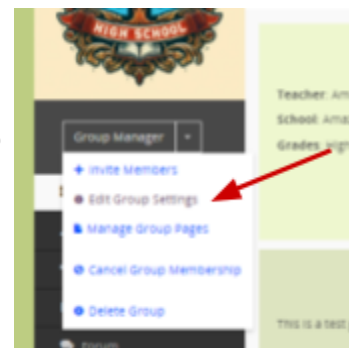
Click ‘**Cancel this Invitation.**’ A message dialog will appear with a tactful cancellation message that you may edit. Click ‘**Submit**’ at the bottom to cancel the invitation and send the message.

Opening Your Group to Mentor Applications

One option that can help you locate student mentors is allowing **scientists to apply to join.**

Every Group on PlantingScience is created with its ‘Join Policy’ set to ‘Invite Only.’ However, as a Liaison, you can **edit your Group settings** from the **Group Manager dropdown.**

Scroll down to the ‘**Membership Settings/Join Policy**’ box, which will appear below the Logo box, just over halfway down the Group settings page.



MEMBERSHIP SETTINGS/JOIN POLICY

if you want to restrict access to this group, explain how the membership is restricted and what credentials (project number, principal investigator, etc.) new users should include to identify themselves. New applicants will be prompted for this information.

Who can join? Required

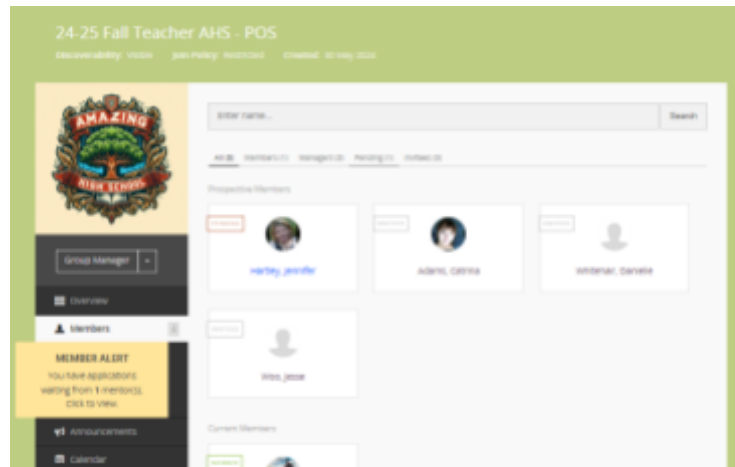
☐ Open/Anyone
Membership requests are automatically accepted (no pending status)
☒ **Restricted**
Membership requests are pending and must be approved/edited by a manager.
Credentials (presented to user when requesting access to group) (optional)
☐ Invite Only
Membership can only be gained through an invite.
☐ Closed
Membership cannot be requested.

If you select ‘**Restricted**’ in this box, your group will appear under ‘**Current Groups Seeking Mentors**’ under ‘Galleries’ in the top menu. You can include a note in the ‘Credentials’ box to explain what, if any, qualifications you are seeking in mentors. (e.g., “willing to videoconference”, “has some experience with hydroponics”, or “able to communicate in Spanish.”)

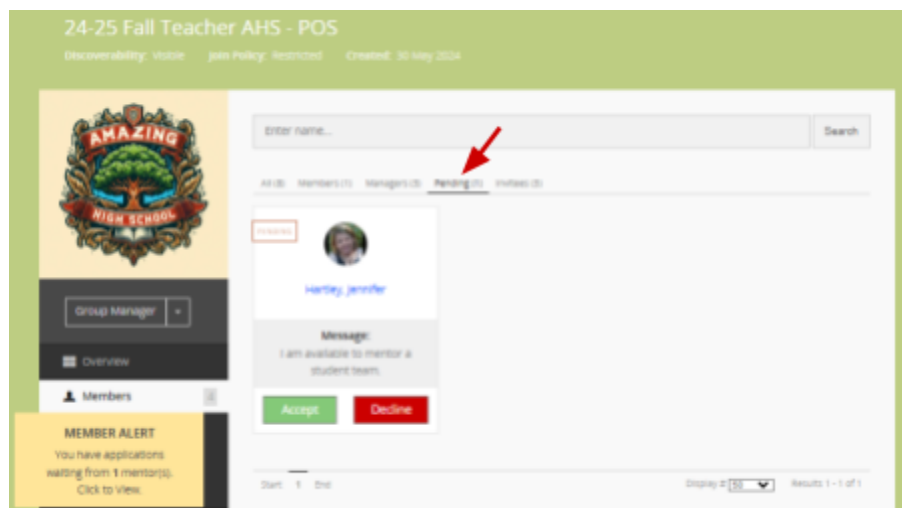
NOTE: Please DO NOT select 'Open/Anyone.' This setting will allow scientists to join your group without requiring approval.

Remember to scroll down to the bottom of the Group Settings page and click **'Save'** to save your changes.

Scientists looking for groups to mentor will browse the **'Current Groups Seeking Mentors'** gallery and then apply to mentor. You will receive an email notification when an application is submitted, and an alert will appear on your Group page as shown:



Click the **'Pending'** tab at the top of the Members view to respond to the application. You can view the scientist's profile by clicking on their name. Simply click **'Accept'** if you feel the scientist would fit your students well or **'Decline'** if not. (The system will provide you with a diplomatic 'Decline' message that you can edit to make it more personal.)



We haven't found enough Mentors and our students need to start!

This does happen sometimes, especially during large sessions or groups with later-season start dates. A couple of strategies are recommended in this case:

- **Reach out to the PlantingScience staff and let them know.** They may know of mentors who are looking for placement, or be able to recommend good candidates to invite.
- **Post a message to the Group Forum asking existing mentors if any would mind taking on two student teams.** Often mentors find mentoring a second team for the same group to be a low lift, since they are checking in with the class anyway. They may even enjoy seeing the class' work from a second perspective.
- **Consider mentoring 1-2 teams yourself.** Make this your last resort, as you may wind up having to take over mentorship for other teams if mentors drop out later in the session, but this is certainly an option.

We have enough Mentors! Now what?

Once enough mentors have joined your group that you have one for each of your student teams you will want to make sure you do the following:

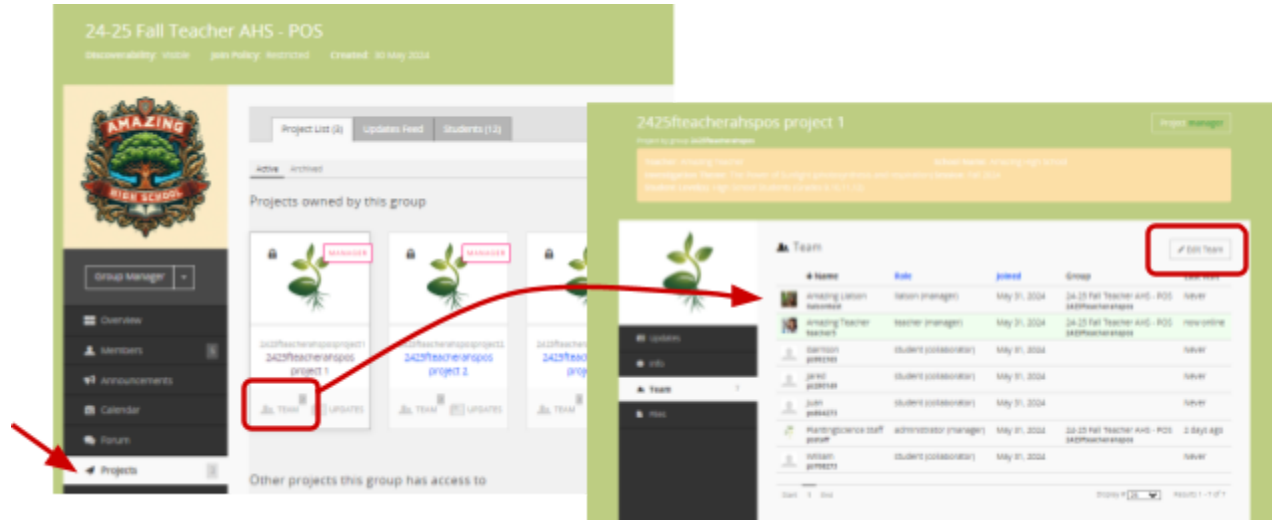
- ☐ **Cancel any remaining invitations** on the Invitees tab of your Members page.
- ☐ **Decline any remaining applications** on your Members page's 'Pending' tab.
- ☐ **Edit your 'Join Policy' back to 'Invite Only'** (if applicable) in the Group Settings under the 'Group Manager' dropdown.

These steps will ensure you only bring in the Scientist Mentors you need. This is helpful to other groups who may also be seeking mentors, and considerate of Scientist Mentors' time and attention.

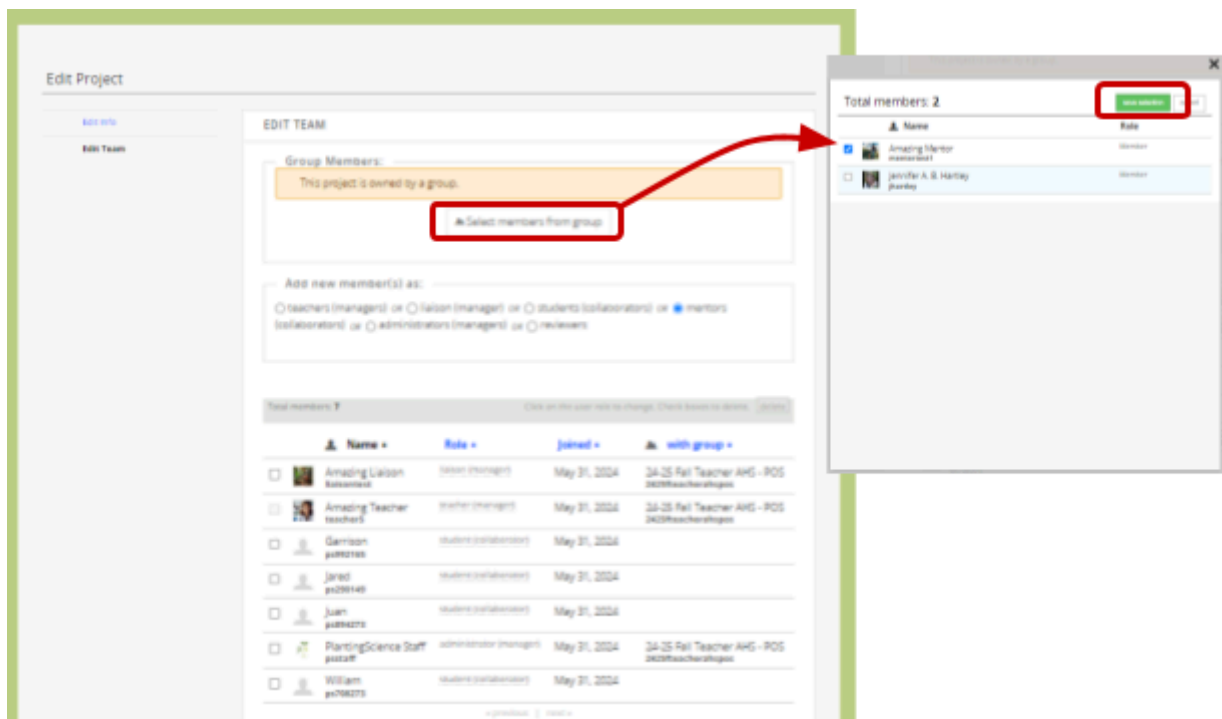
Assigning Scientist Mentors to Projects

This task typically falls to the LIAISON but may be done by the teacher if needed.

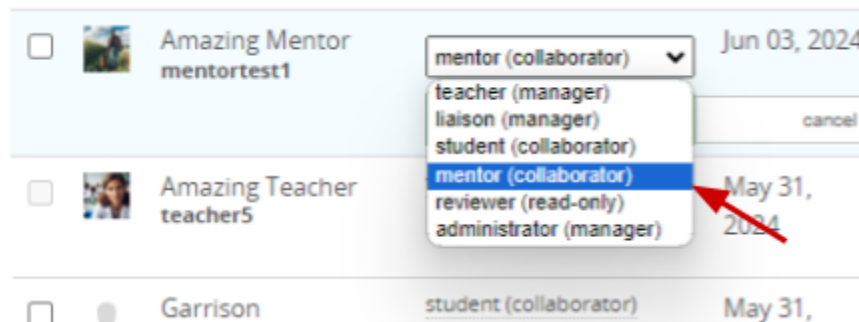
To assign a Scientist Mentor to a project, go to the Group page and click '**Projects**' in the side menu. Find the 'card' of the project needing a mentor and click the '**Team**' icon in the lower left corner. This will open the list of users currently assigned to the project, their role in the project team, and the last time each logged in.



Click **'Edit Team'** in the upper right corner of the pane. Here you can add and remove team members, edit their roles, etc. Click **'Select Members from Group'** to call up a list of current group members. Check the box beside the Scientist Mentor you want to assign and click **'Save Selection'** in the upper right corner.

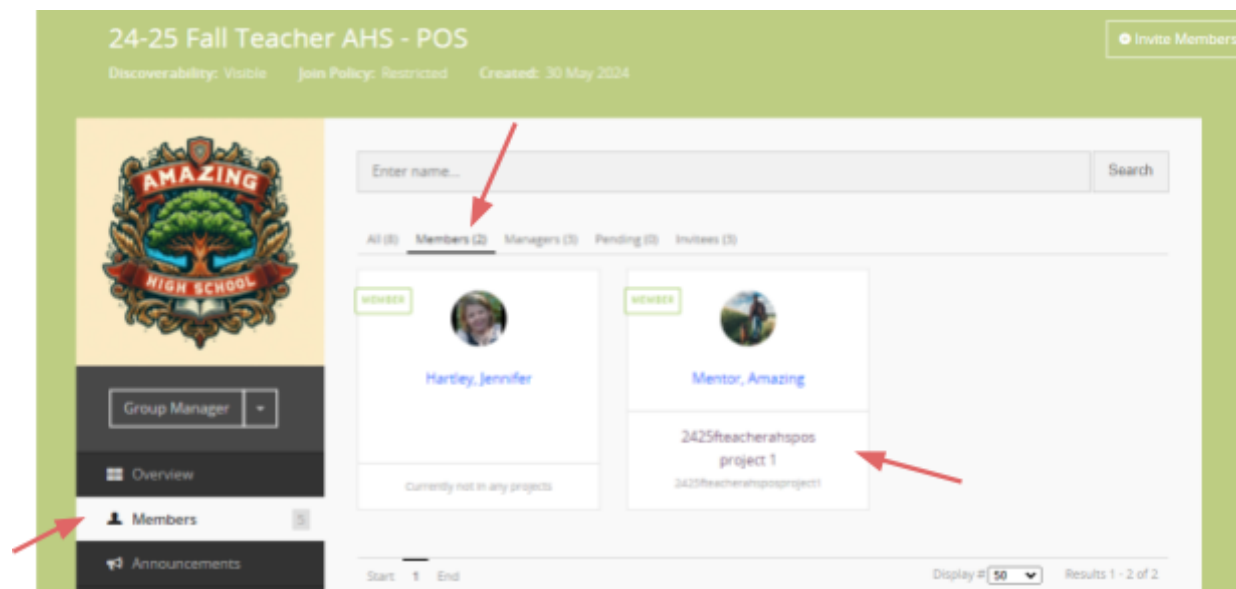


The new member will appear in the list and should show the role of **'Mentor (collaborator).'** If not, click on the role, and a dropdown will appear that allows you to select the Mentor role for that member. Click **'Save'** to save the new role.



The Members Tab

You can check which Scientist Mentors are assigned and which still need teams by returning to the Group page and clicking on **'Members'** in the side menu. (NOTE: While viewing Project pages, you can find a link to the Group page under the project's name at the top.) Click on the **'Members'** tab at the top of the Members pane.



The cards for Scientist Mentors who have already been assigned to a project will now display a link to their assigned project's page. Those Scientist Mentors still waiting to be assigned will show a message that says, **'Currently not in any projects.'**



What if I have extra Scientist Mentors?

This can happen if you send more invitations than needed or open your group to applications and then accept too many mentor applicants.

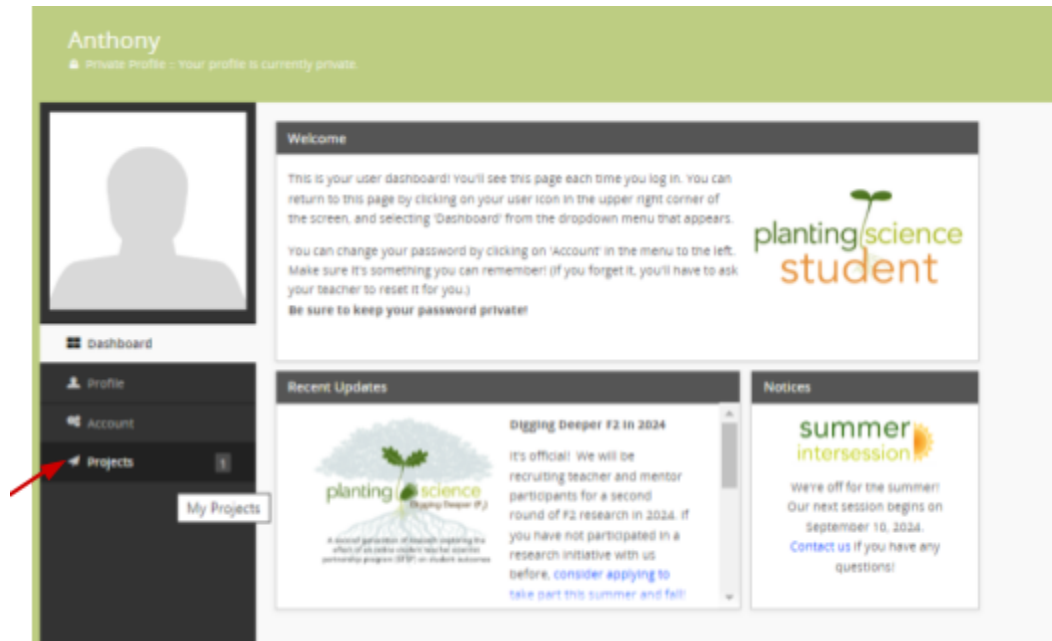
PLEASE DO NOT ASSIGN MORE THAN ONE SCIENTIST MENTOR TO A PROJECT TEAM.

This depletes our mentor pool and makes it difficult for other groups to line up the Scientist Mentors needed for their students. Instead, contact the PlantingScience team at psteam@plantingscience.org. We will work with your extra mentors to find alternate placements for them.

Bringing Students Online

Student Dashboard

Students will see a limited dashboard when they log in. They will access their project page by clicking on 'Projects' in the side menu. Here is an example of what students see:



They will also have access to a small set of resources. These resources are also available to teachers under 'Resources' in the top menu from your user dashboard.

Student Resources

Getting Started



Not sure where to start? Click here for a step-by-step guide that explains how to set up your team page and how to use it!

[More Information](#)

Student Roadmap to Inquiry



What are the steps through a scientific Investigation? Learn more about each step of the process here!

[More information](#)

Plant Investigation Toolkit



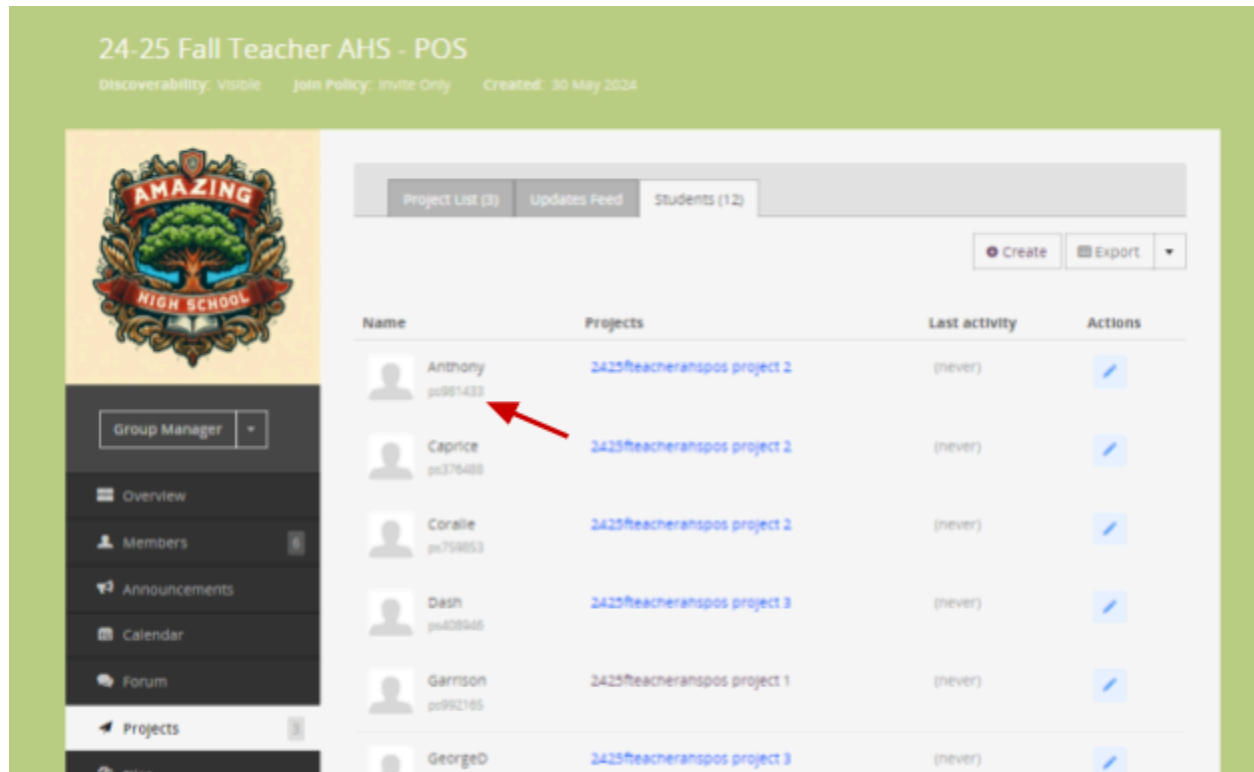
Do you need some basic plant biology research information? These resources range from basic plant care to simple analytical techniques.

[More Information](#)

Questions? Email PlantingScience staff: psteam@plantingscience.org

Logging on

Each student will be given a PlantingScience username that comprises the letters 'ps' followed by 4-5 numbers (e.g., 'ps981433'). These usernames are listed under student names on the Students tab of the Project area of your Group page:



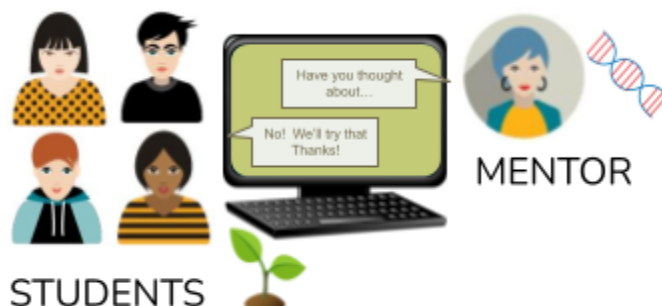
Teachers typically assign all students the same password when they are created and then have students change their passwords when they log in.

Because student accounts are not connected to real email addresses, **students cannot use the 'Forgot your password?' function at the login screen.** If a student forgets their password, the Teacher must come to the Students pane, find the student's account in the list, and click the 'crayon' icon to change it. As Liaisons also have this ability, your teacher may ask you for assistance.

During the Session

How PlantingScience Mentoring Works

As noted, students and their Scientist Mentor interact through the Project Team page, using the provided Updates Feed to communicate. Typically, students will log in to introduce themselves and then post sporadically while completing the introductory activities in class to share what they are learning. However, once



they begin their team projects, they typically post each day they work on their investigations in class. Their posting schedule may change throughout the session, especially if the students' projects require time to develop (e.g., waiting for seeds to germinate).

As a Liaison, you should consider the benefits and potential pitfalls of online

communication as you interact with members of your Group. On the one hand, students today are familiar and comfortable with exchanging text messages online, and the asynchronous nature of this kind of dialogue eliminates the need to schedule mentoring sessions around scientists', teachers', and students' busy schedules. The message board can also be conveniently accessed from any internet-enabled device, and the conversation history is automatically retained for future reference.

On the other hand, text-based communication can be tricky. The lack of vocal tone and body language might lead to confusion regarding a message's intent. Students may skim or skip reading if their Scientist Mentor posts long or detailed messages or uses hard-to-understand terminology. **Most concerning, the asynchronous nature of this interaction makes it more likely that Scientist Mentors may forget to post at all**, giving students the impression that their Mentor is intentionally ignoring or avoiding them.

In this section, we'll explain what students see and do on the platform and then explore how the Liaison role was designed to ensure students receive the greatest possible benefit from their experience.

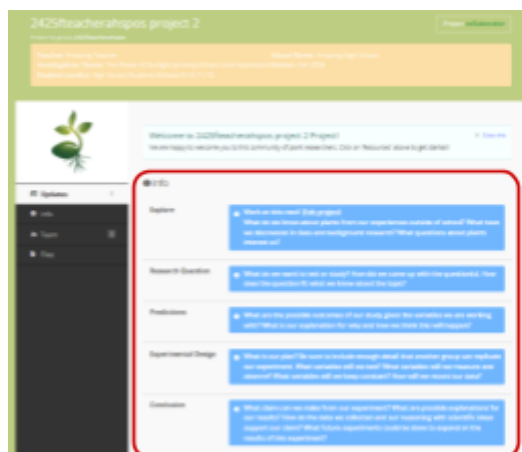
Using the Project Page

Once students have started working on their investigations, they will have two primary responsibilities on the PlantingScience platform: editing their Project information and posting updates to their Scientist Mentors.

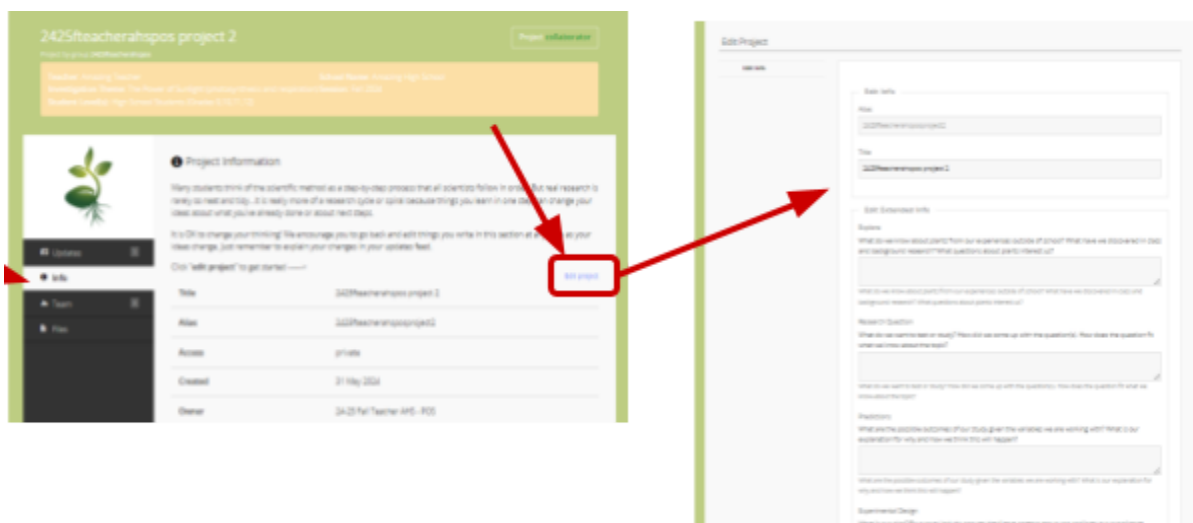
Editing the Project Info

The top of the Project page comprises the 'Project Info' section, which includes fields for students to complete as they progress in their investigation. When empty, the field will be blue and contain prompting questions to help students understand what information should be included.

These fields are similar to the sections in a science fair poster or project board, though there is no field for observations and data. Students should report this information in the Updates feed and, if desired, in the Files.



To edit these fields, click 'Info' in the side menu. This view will show all text currently entered into the fields. Students should look for the words '**Edit Project**' on the right side of the pane.



On this page, students can **give their team a new name** (they cannot edit the alias), **add or edit all of the Info fields**, and even **upload a team image**.

They must click **Save Changes** at the bottom of this screen to save their updates before leaving the page.

Posting Updates to Mentors

The bottom of the Project page shows the Updates Feed, where students and Scientist Mentors converse. Like most social media feeds, the messages are sorted into reverse chronological order, with the most recent messages at the top. The only exception is a 'comment' (reply), which appears indented below the post to which it is replying.

The messages posted here are visible to the students, the Scientist Mentor, the Teacher, the Liaison, and the PS staff. No private communication exists, but other mentors and students cannot see these messages.



Students can compose their messages in a document and copy and paste the text into the message field if it is easier. However, pasting from Google Docs and Word often causes the text to appear bold because of the document tags these platforms use. Students can avoid this by pasting using 'Control-Shift-V' instead of 'Control-V.' They can also right-click in the top left corner of the message field to call up a 'Paste' window that strips out these document tags.

You may need to remind students that their posts should NOT include:

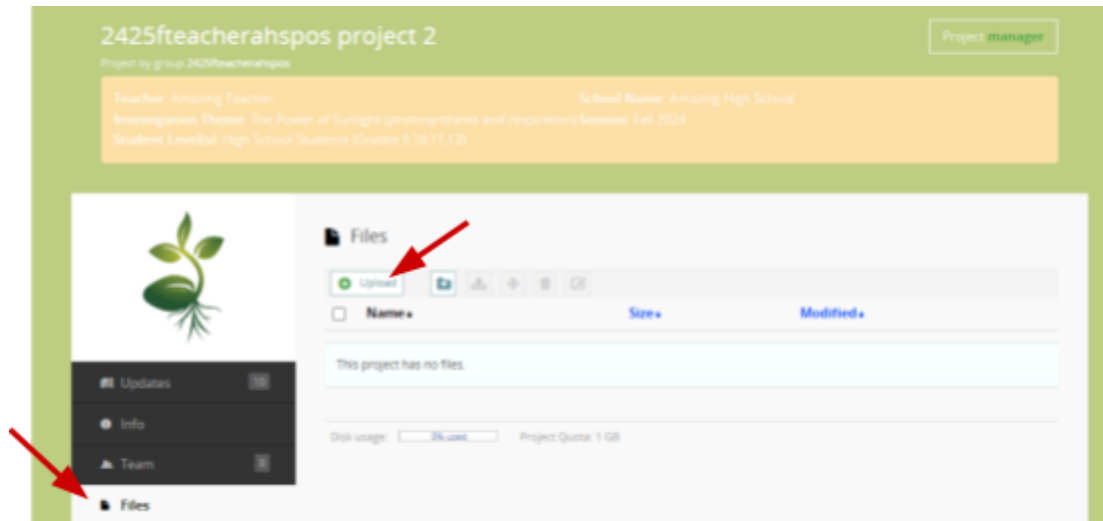
- **Any student's full name.**
- **Email addresses or phone numbers.**
- **Document links (e.g., Google Docs, Dropbox links, etc.)**

Document links are forbidden because the 'document info' provided by Drive and Dropbox usually includes the author's full name and email address, so including them would violate student privacy.

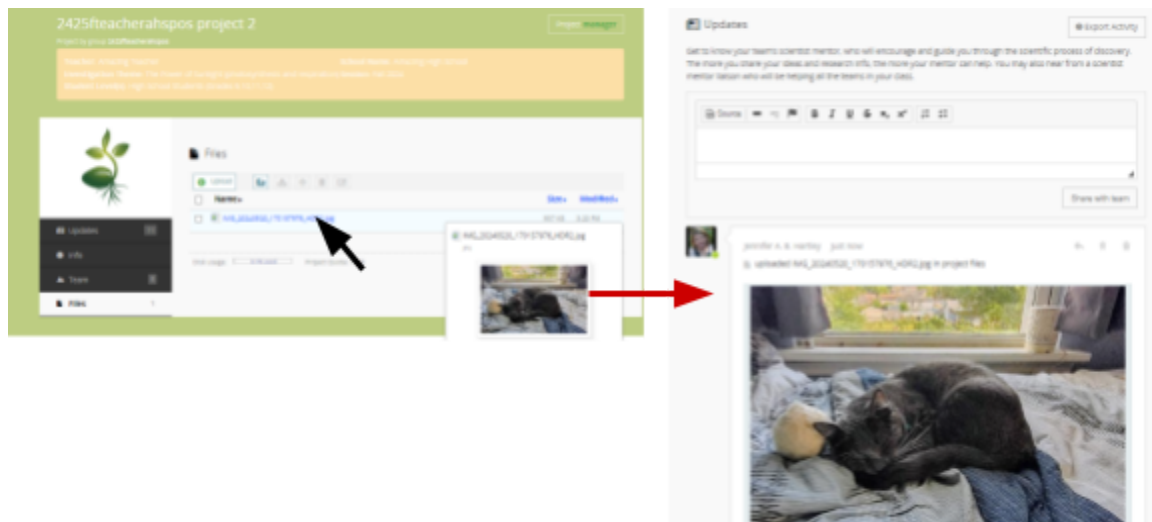
Students may post links to other relevant, school-appropriate websites and resources.

Photos and Files

Students wishing to share documents or photos with their Scientist Mentor should use the 'Files' option in the side menu of their Project page:



Clicking 'Upload' will allow the student to drag-and-drop or browse and select a file to upload to the project. The uploaded file will appear in the Updates feed.



As a Liaison, you may need to remind students to:

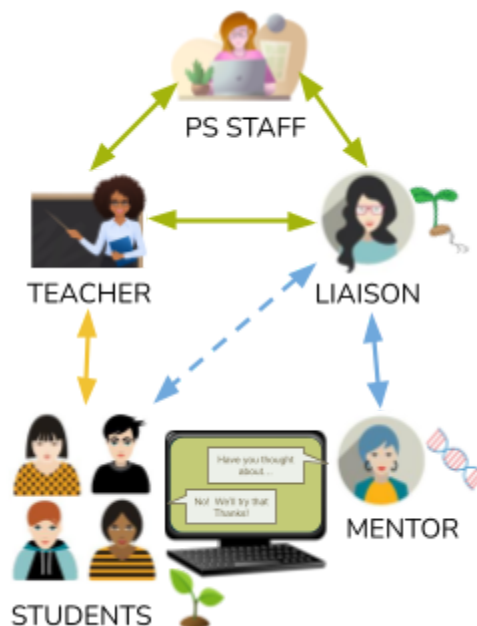
- **Ensure uploaded files have different names from those already in the project.**
Uploading a different file of the same name will overwrite the first file.
- **Ensure files and images do not include students' last names or email addresses.**

What Liaisons Do

While teams are working on their projects, the Teacher and Liaison work together to facilitate the conversation between the students and their Scientist Mentor.

The Teacher does this by:

- Communicating regularly with the Group to provide classroom updates and let Scientist Mentors know when students will be logging on.
- Providing opportunities during class for students to log on and read and post messages.
- Guiding students regarding what to write in their posts, such as providing prompts or guidelines to help them communicate effectively.
- Helping students interpret their Scientist Mentor's messages if they find a post confusing.



The Liaison contributes by:

- Ensuring that the Teacher's classroom updates are made available to Mentors.
- Moderating the projects' Update Feeds to identify any concerns in Student/Mentor conversations.
- Ensuring all student teams have messages waiting when they log in, posting to the team if needed.
- Recognizing Teams' work by nominating posts to be featured and projects for Star Project consideration.

Liaison Communications

With the Teacher

Most communication with the Teacher will take place via email. In your initial conversation, you should establish the best way to contact each other and how often you and the Teacher will communicate throughout the session.



If the Teacher feels comfortable enough with the PlantingScience platform, they may prefer to post weekly updates directly on the Group Forum. Otherwise, you should check in with the Teacher each week and then post the updates on the Group Forum. Weekly updates should include:

- The planned schedule for the week, especially when student teams check-in.
- Any changes to the class schedule that may have arisen due to vacation days or school events.
- Any comments or concerns students have expressed in the classroom.

Remember that all Group Forum posts are emailed to all members of the Group. Therefore, DO NOT use the Forum to communicate with your Teacher, especially if your conversations concern specific students or Scientist Mentors

You should email the Teacher directly if:

- You are concerned about messages posted by a student.
- One or more groups of students fail to post updates, but the others are active.
- Mentors post questions to the Group Forum that require the Teacher's attention, but the Teacher has not replied within 2-3 days.

Please be attentive and respond promptly to any emails the Teacher sends you. The Teacher may have concerns about a Scientist Mentor or questions about the platform, Investigation Theme, or schedule. If the teacher sends you a question you do not feel you can answer, forward the message to psteam@plantingscience.org and we will help!

Finally, if your teacher is not responding to your emails, please inform the PlantingScience team immediately. We will contact the teacher and advise you about how best to proceed.

With Scientist Mentors

Communicating with Scientist Mentors is a core function of the Liaison role and should be a top priority while students work on their investigations in the classroom. Several avenues are available to make communicating with them convenient:

Group Forum

The best way to communicate with all Scientist Mentors is by using the [Group Forum](#). The most important communications that may take place here include:

- **Classroom Updates**

Updates should be posted at least weekly with [information](#) regarding what is going on in the classroom. As discussed above, the Teacher may elect to handle this, or they may ask you to post on their behalf.

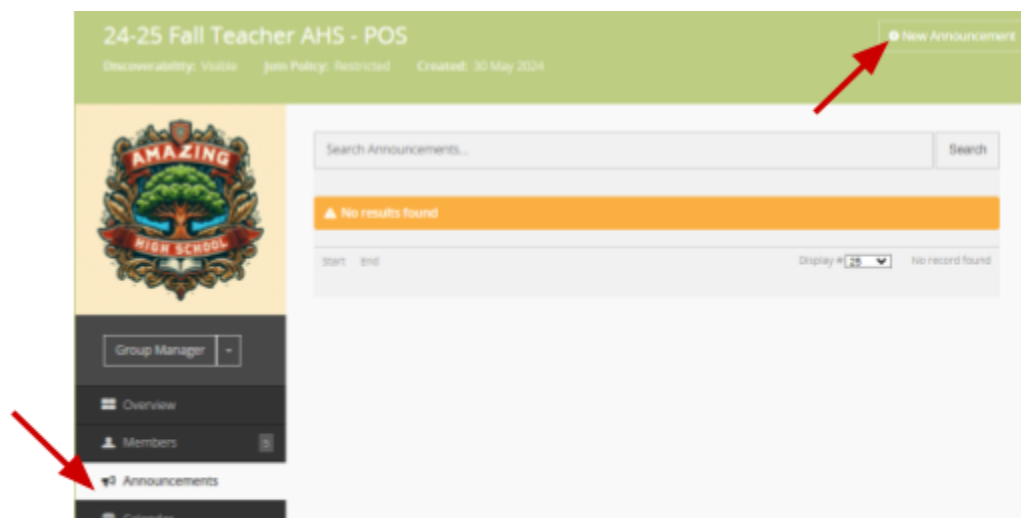
- **Questions**

Check the **Questions** category regularly and respond to any posts left by Scientist Mentors there. If you have learned about mentors' questions through other channels, consider posting them and providing the answers.



Announcements

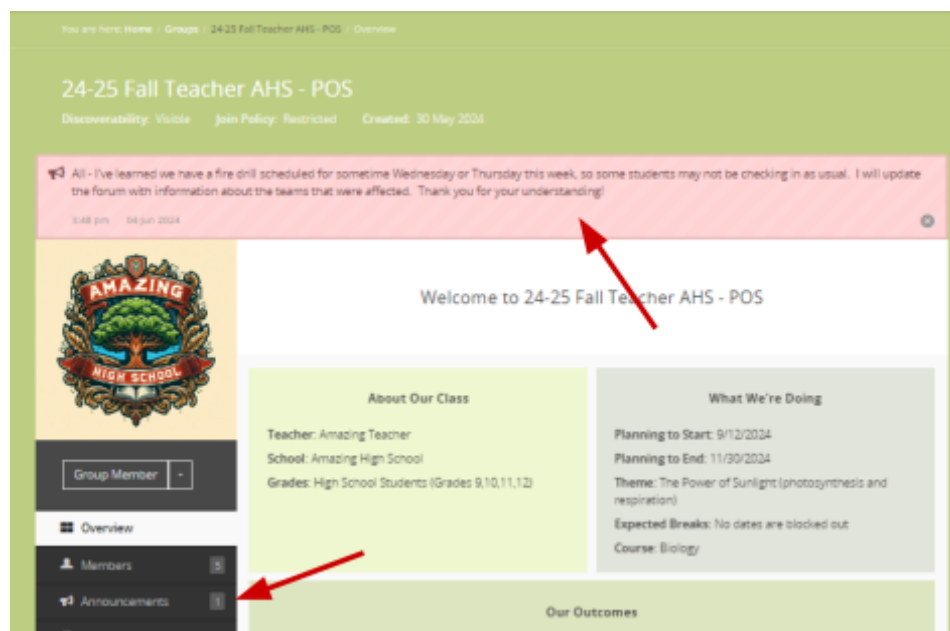
Because the Forum allows users to adjust their email settings, it can be a less effective tool for communicating quickly with Scientist Mentors, such as when the schedule changes due to unexpected circumstances. The Announcements board is designed to be used in these situations.



Click on **'Announcements'** in the side menu on your Group page, and then on **'New Announcement'** in the upper right corner. This will open the Announcement editor, where you can compose the text of your message.



Note that the scheduling fields are optional. Leaving the 'Start' field blank will publish your announcement immediately. Consider setting an End date for the message so it disappears when it is no longer relevant.



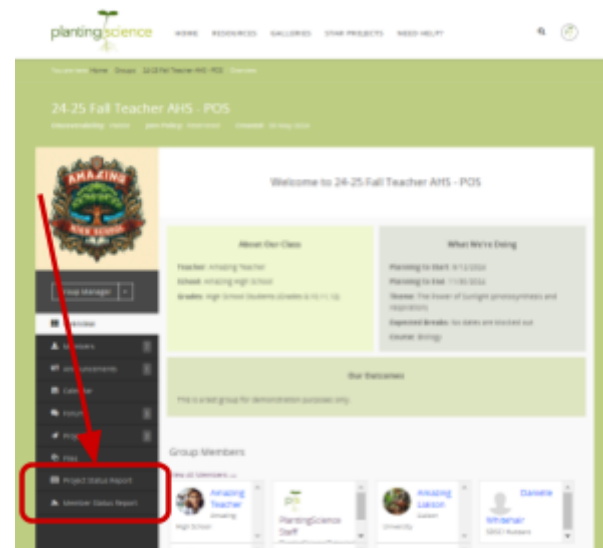
Once published, your announcement will appear as a banner at the top of the PlantingScience group page. Scientist mentors will receive a copy via email regardless of their forum email settings.

NOTE: Be careful not to overuse announcements. While they can be an effective way to communicate timely information, posting many announcements frustrates Scientist Mentors. Try to post no more than one announcement per week.

Email

You can communicate directly with individual Scientist Mentors via email using the Activity Reports, which include the **Project Status Report** and the **Member Status Report**. These reports will be explained in more detail later, but each can be used in different ways to connect with Scientist Mentors by email.

Activity reports can be accessed at the bottom of the side menu of your Group Page. Depending on the situation, one or both of these reports will be helpful:



The Member Status Report is most useful when you want to nudge an inactive Scientist Mentor and remind them to post a response to their student team. Simply locate the Mentor in the list of users and scroll to the right until you find the Email column.

You are here: Home / Groups / 24-25 Fall Teacher AHS - POS / Project Member Status

24-25 Fall Teacher AHS - POS

Discoverability: Visible Join Policy: Restricted Created: 30 May 2024

AMAZING HIGH SCHOOL

Group Manager

Overview

Members 7

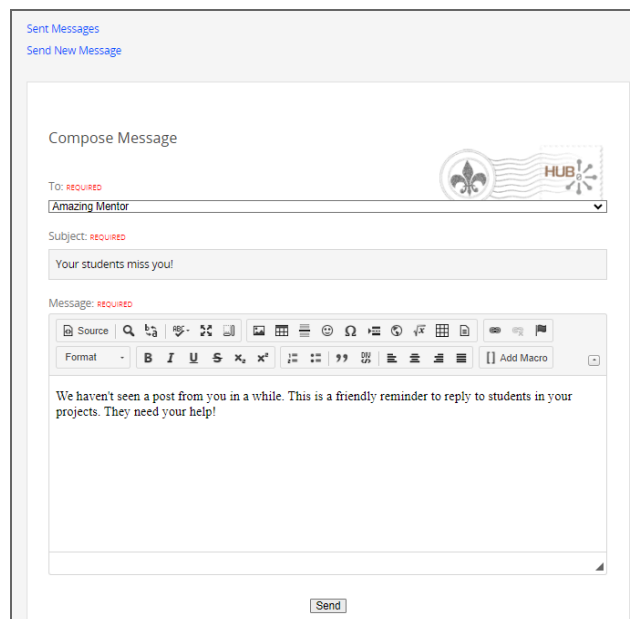
Not active within 5 days Not active

Export Data

Project	Activity Count	Email	Latest Blog Post	Notes
teacherahspos project 1	1	Message amentor@plantingscience.org	Hi Team!! I am Amazing Mentor, and I study wheat. Most of the wheat we eat is from wheat. Looking forward to hearing from you!	
teacherahspos project 2	1	Message jhartley@botany.org	uploaded IMG_20240520_170157976_HDR2.jpg in project files	

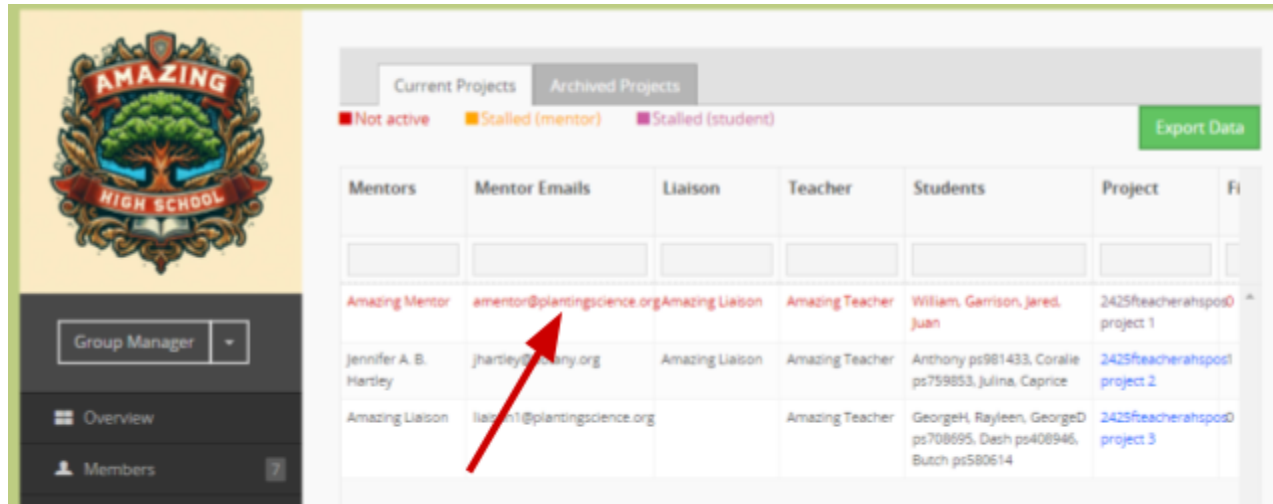
Clicking the 'Message' button creates a 'nudge' email that will be sent from the PlantingScience support email address.

If desired, you may customize the message, but remember that any responses will go to a no-reply message box. Therefore, **this method should only be used for communications that do not require a reply.**



If you have questions for a Scientist Mentor that require a response, you can use the Email address shown on this report to contact them.

Mentors' email addresses are also available (and are more convenient to locate) on the **Project Status Report**:



Mentors	Mentor Emails	Liaison	Teacher	Students	Project	Fi
Amazing Mentor	amentor@plantingscience.org	Amazing Liaison	Amazing Teacher	William, Garrison, Jared, Juan	2425feacherahsp0 project 1	
Jennifer A. B. Hartley	jhartley@ny.org	Amazing Liaison	Amazing Teacher	Anthony ps981433, Coralie ps759853, Juliana, Caprice	2425feacherahsp0 project 2	
Amazing Liaison	liaison1@plantingscience.org		Amazing Teacher	GeorgeH, Rayleen, GeorgeD ps708695, Diah ps408946, Butch ps580614	2425feacherahsp0 project 3	

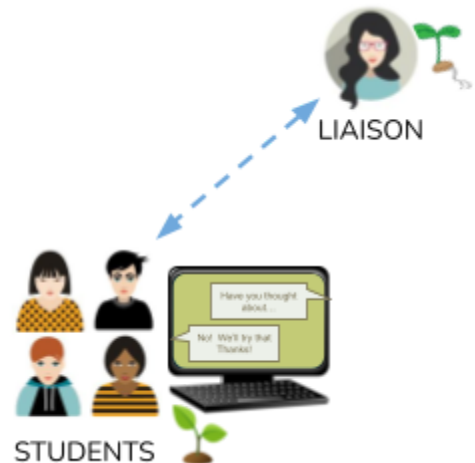
This report is organized by project. You'll find the Mentors' emails in the second column.

IMPORTANT: Please DO NOT share this information with students!

With Students

Usually, the Teacher and the Scientist Mentor will communicate with students regularly, while the Liaison may not.

However, **Liaisons should still introduce themselves to students and explain their role.** This will make students aware of who the Liaison is and what they are doing and will make stepping in easier if the Scientist Mentor stops posting or needs to step away for a few days. In addition, students will learn about another scientist's work and interests



You can post one message to all teams at the same time using the [Update Feeds tab of the Group's Project page](#).

[Sample language for this introduction](#) is provided in the appendix.

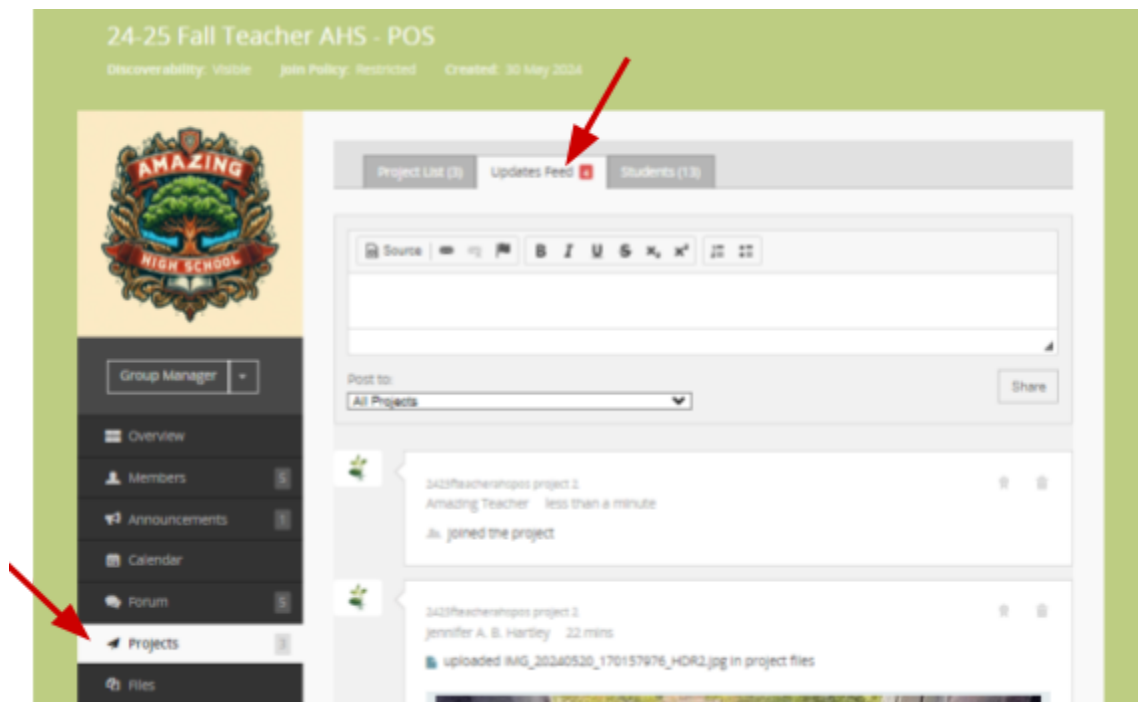
Moderating Project Feeds

You should check in on team progress frequently while students actively work on their investigations in class. This will enable you to address any miscommunications as they arise and identify project teams that may need support. You can do this by **visiting each Project's page at least weekly** while students are active.

The platform also provides tools that allow you to conveniently see and address any hiccups that may have occurred in between checks.

The Project Updates Feed Tab

You can see all recent group activity at a glance by clicking on '**Projects**' in the side menu of the Group Overview, and then on the '**Updates Feed**' tab at the top of the pane.

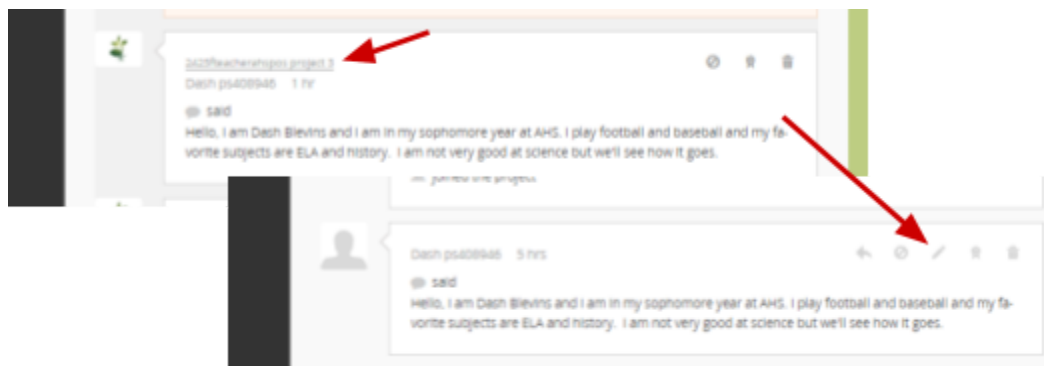


This feed shows all messages posted across ALL projects in the order they were submitted. While this means the posts are not organized into a readable order, you can use this view to scan the posts for:

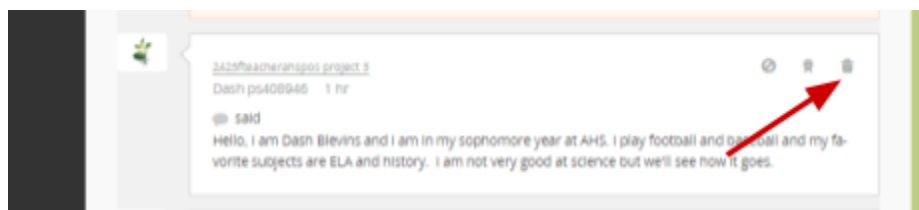
- Student last names.
- Document links.
- Inappropriate language or tone.

As a Liaison, the following tools allow you to manage posted messages.

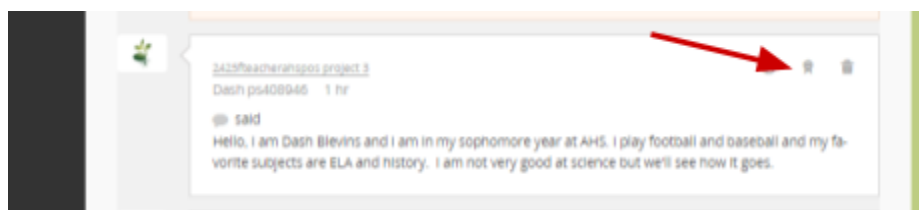
- **You can edit a message** (e.g., to remove a student's last name) by clicking on the project name at the top of the message. Find the message in the Updates feed at the bottom of the page and click the **crayon icon**.



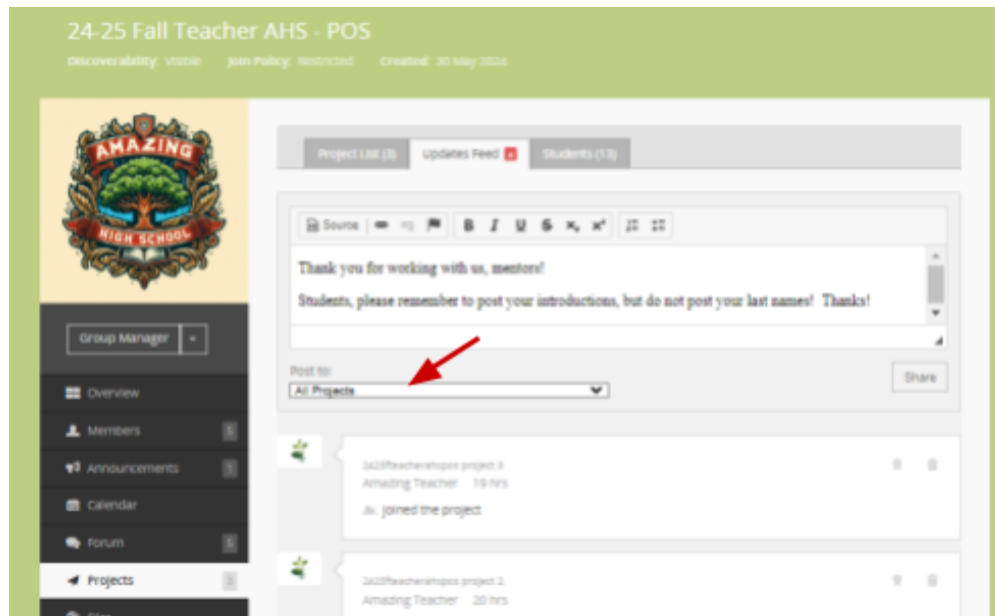
- **You can delete a message** by clicking on the **trash can icon** from the Update Feeds tab. (Note that deleting the message will remove it from the Project's Update feed but not the Updates Feed tab.) You should delete messages that contain inappropriate or abusive language.



- **You can nominate a message for recognition** by clicking on the 'ribbon' icon. Nominating a posted message will alert PS staff that the message may be worth displaying in the 'Featured Messages' section of the PlantingScience Homepage. (NOTE: this section cannot show posts that contain files or photos.)



This tab also provides a handy way to post messages to project feeds. **Type a message** in the box at the top, **use the dropdown at the bottom** to select where you want it posted, then click 'Share.'



Activity Reports

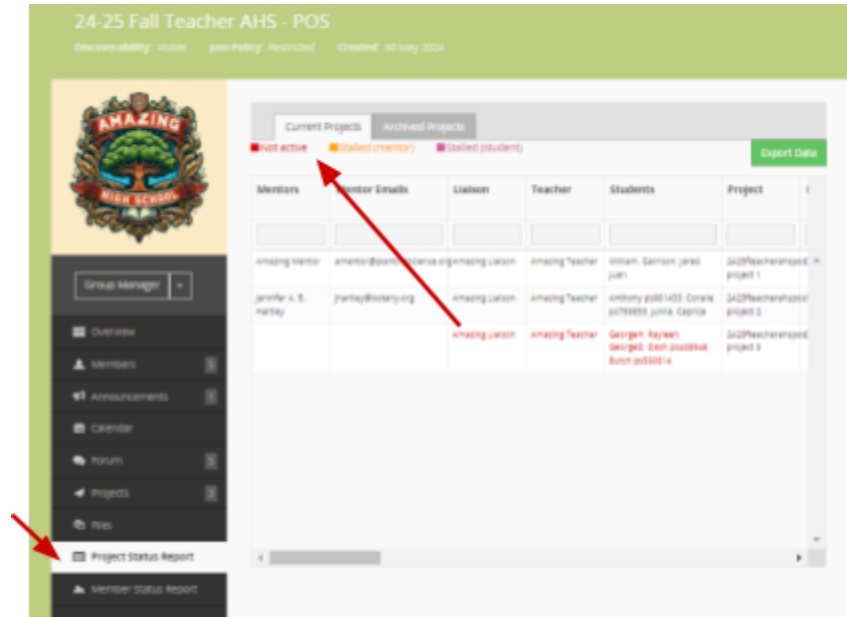
At the bottom of the side menu on the Group page, you will find two reports: the **Project Status Report** and the **Member Status Report**. These reports provide a dashboard for Teachers and Liaisons that showcases what is happening in the projects in one place. They are only viewable by the Teacher, Liaison, and PlantingScience staff.

The Project Status Report

These reports are spreadsheets that display key information about each project, including the team members, their last login, their last posted messages, etc. The key at the top explains why some team rows may appear in a different color.

- If the team appears in **black text**, the conversation is moving along as expected. A quick check is probably all that is needed.
- If the team appears in **gold text**, the conversation has stalled, and students are waiting for a response from the Scientist Mentor. The Liaison should post a message to the feed and contact the mentor to nudge them to log on.
- If the team appears in **purple text**, the conversation has stalled, and the Scientist Mentor is waiting for a response from the students. The Liaison should reach out to the Teacher and let them know.

- If the team appears in **red text**, neither the students nor the Scientist Mentor have posted in at least a week. This may be due to a long weekend or other circumstances in the classroom. Touch base with the Teacher if you are unsure why projects have stalled.



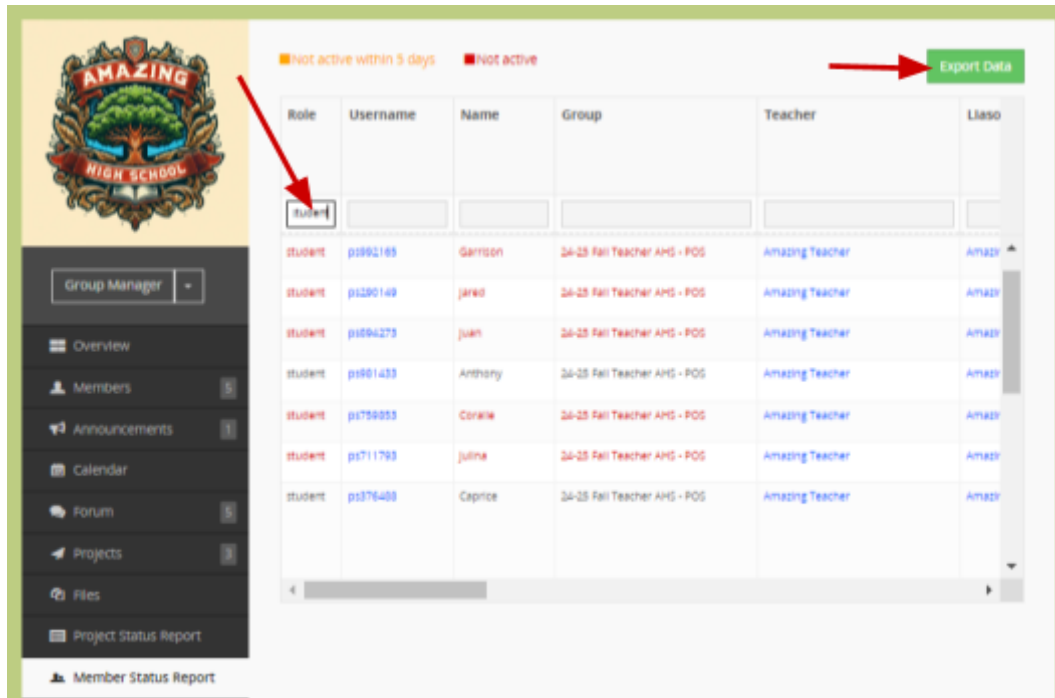
If you scroll right on this report, you'll find columns that report on the status of the Project Team's info fields:

Current Projects		Archived Projects				Export Data	
Not active		Stalled (mentor)		Stalled (student)			
Liaison activity	Teacher Activity	explore	question	predictions	design		
0		false	false	false	false		
0		true	false	false	false		
0		false	false	false	false		

The report will show 'true' if a team has entered text into the field and 'false' if the field is empty.

The Member Status Report

This report works similarly to the Project Status Report but shows activity trends by individual users. A similar color code is used here, where the **gold text** indicates the user has not been online in at least five days, and the **red text** indicates they have been gone for much longer or have never logged in at all.



Role	Username	Name	Group	Teacher	Liaso
student	p1892185	Garrison	24-25 Fall Teacher AMS - POS	Amazing Teacher	Amazing
student	p1290148	Jared	24-25 Fall Teacher AMS - POS	Amazing Teacher	Amazing
student	p1894273	Juan	24-25 Fall Teacher AMS - POS	Amazing Teacher	Amazing
student	p1881433	Anthony	24-25 Fall Teacher AMS - POS	Amazing Teacher	Amazing
student	p1758853	Corale	24-25 Fall Teacher AMS - POS	Amazing Teacher	Amazing
student	p1711793	Julia	24-25 Fall Teacher AMS - POS	Amazing Teacher	Amazing
student	p1376408	Caprice	24-25 Fall Teacher AMS - POS	Amazing Teacher	Amazing

You can use the text fields at the top of each column to filter the list, as shown. For example, typing 'mentor' in the Role field will show you which Scientist Mentors have logged in recently and which have not. The rows on this report are similarly color-coded, so you can see at a glance which mentors have posted recently and which mentors may need to be nudged.

You can easily nudge mentors by scrolling to the right to the E-mail column and clicking 'Message' button for that mentor's row. A pre-written message will appear that you can edit if you like. The message will send from the PlantingScience platform rather from your specific address, so this method of reaching out may be preferred if you have privacy concerns.

That said, bear in mind that any messages sent this way will have a 'reply-to' of support1@plantingscience.org, which is a NO-REPLY mailbox. Therefore, you can only use this method to reach out to mentors IF your message does not contain any questions or other invitations to respond directly.

Compose Message

To: REQUIRED

Jennifer A. B. Hartley



Subject: **REQUIRED**

Your students miss you!

Message: REQUIRED

[illegible]

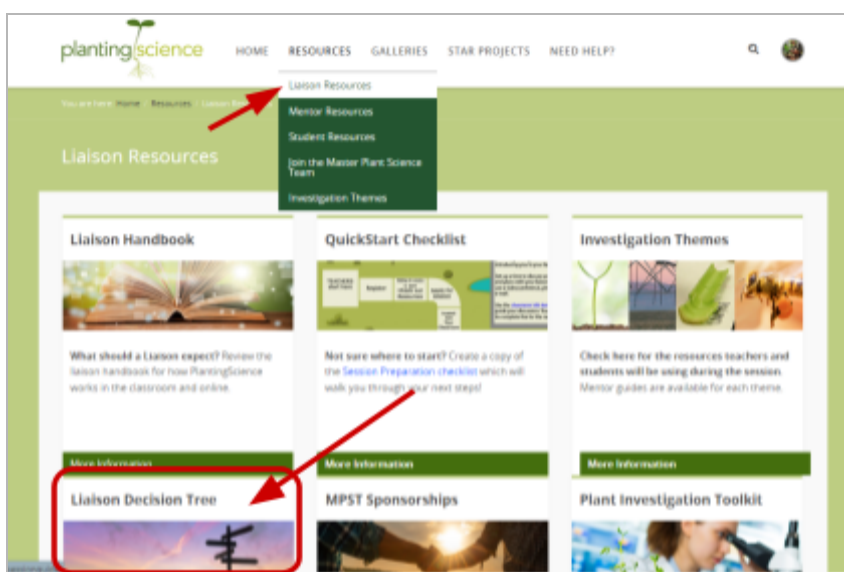
Send

Addressing Concerns

While most classes using PlantingScience have a smooth, positive experience, some challenging situations arise. As the Liaison, you are the person most likely to field questions from the Teacher and Scientist Mentors, see problematic messages on Update Feeds, and notice teams that seem to be veering off-track.

When this happens, remember that **you are not responsible for the conduct of your Teacher, Scientist Mentors, or students**. You are welcome to address simple concerns independently, but you are not expected to confront others about posts or behaviors you feel are inappropriate. Instead, your responsibility is to take note and alert either the PS staff or the Teacher, as appropriate.

A 'Decision Tree' is available to clarify the best practices for common situations. To access it, go to Liaison Resources in the top menu and then click on 'Liaison Decision Tree' in the second row.



The tree is divided into three sections: one addressing student concerns, one addressing teacher concerns, and one addressing mentor concerns. To determine the best course of action, simply go to the appropriate section and follow the provided flowchart.

Remember, when in doubt, you are always welcome to email the PlantingScience team and ask for their advice. Please feel free to use any of the options available under 'Need Help?' in the top menu to connect with us. We are here to help and happy to help you with any concerns you have.

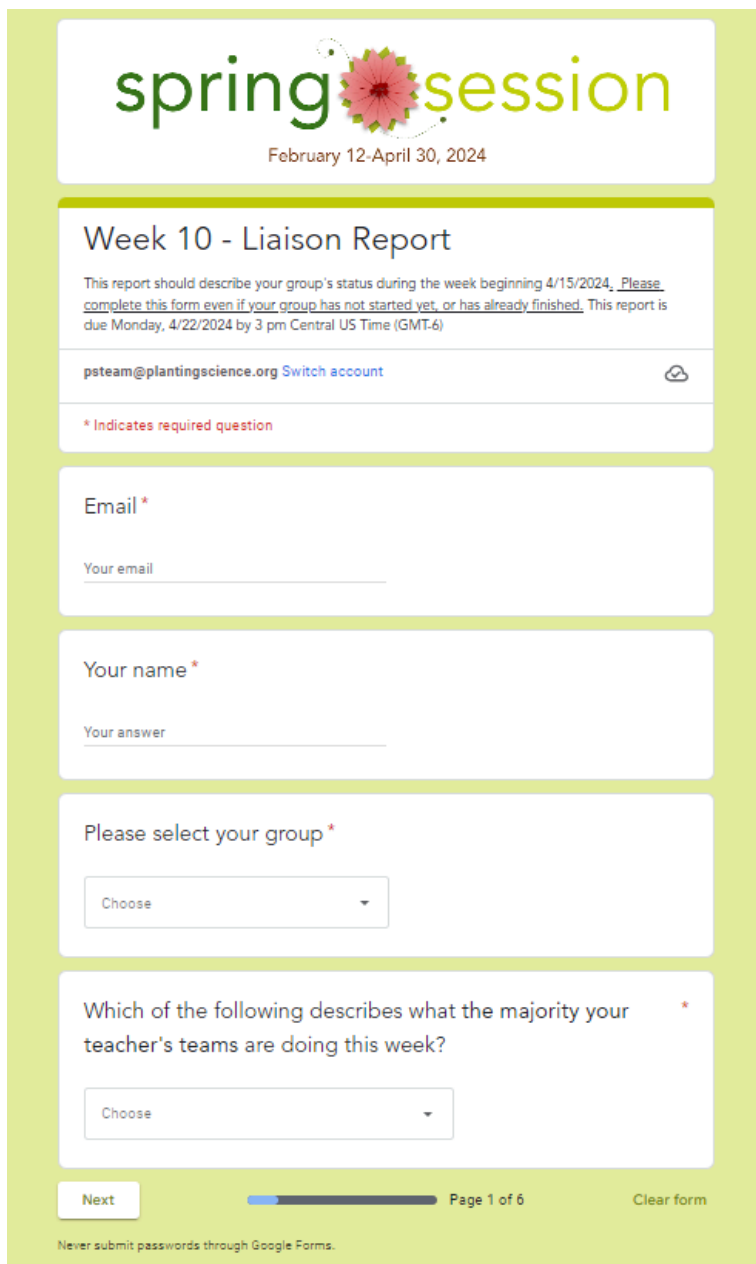
Weekly Liaison Reports

Beginning with the first week of the session, Liaisons should receive an email on Fridays inviting them to complete a weekly Liaison report. This report typically comprises a **Google Form** that should be completed and submitted by 3:00 p.m. [Central US time](#) on Monday.

The form should be completed **every week**, even if your students still need to start their projects or have already finished them. The first page will ask you to indicate the current status of student work and then direct you to a related set of questions.

Completing this form takes less than 5 minutes if projects are not underway. Completing it while students are actively working may take longer, especially if you have not checked in on your project teams regularly. However, regardless of where your Group is in the timeline, you should be able to complete the form in 20 minutes or less.

This report helps the PS Staff provide support where it is needed, lets the PS Staff know that you are active, and serves as a weekly log of activity.



The screenshot shows a Google Form titled "spring session" with a pink flower icon and the dates "February 12-April 30, 2024". The form is for "Week 10 - Liaison Report". It includes instructions: "This report should describe your group's status during the week beginning 4/15/2024. Please complete this form even if your group has not started yet, or has already finished. This report is due Monday, 4/22/2024 by 3 pm Central US Time (GMT-6)". The form is associated with the email "psteam@plantingscience.org" and has a "Switch account" link. A red asterisk indicates required questions. The form has four main sections: "Email *" with a text input field labeled "Your email"; "Your name *" with a text input field labeled "Your answer"; "Please select your group *" with a dropdown menu showing "Choose"; and "Which of the following describes what the majority your teacher's teams are doing this week? *" with a dropdown menu showing "Choose". At the bottom, there is a "Next" button, a progress bar, "Page 1 of 6", a "Clear form" link, and a footer that says "Never submit passwords through Google Forms."

Wrapping Up

All good things must come to an end! As students complete their projects and their conversations on the platform wind to a close, Liaisons take on the responsibility of submitting Star Project nominations for their group.

Star Projects

At the end of every session, you will be invited to [nominate teams from your group to be considered for the 'Star Project' awards](#). These awards are given to projects that the

PlantingScience team feels would make good exemplars for future students and teachers to reference when thinking about their own explorations. For this reason, the criteria for nomination can vary considerably. Student teams may be nominated for various reasons, including conducting an excellent exploration, communicating well with their Scientist Mentor, or responding productively to their challenges.



If you believe it would be helpful, you can contact the PlantingScience staff and request a copy of your Liaison Report responses throughout the session. Your responses to some of the questions may help you narrow down your choices.

Any project can be nominated, but to be selected as a Star Project, the following criteria must be met:

- The project must be complete, with all Project Info fields filled.
- The Updates feed and uploaded files must contain no student last names or document links.
- Students must have posted to the updates feed.

Nominations are submitted through the PlantingScience website by clicking on '**Star Projects**' in the top menu. The form will open about midway through the session and accept nominations until the session's close. At that time, the PlantingScience team will begin scoring projects to select the award recipients.

Winners are announced within two weeks of the end of the session. All student teams that are nominated will receive a certificate. Those who are selected will receive additional prizes, which will be mailed to them at their school.

Next Steps

If your Group projects are completed before the session ends:

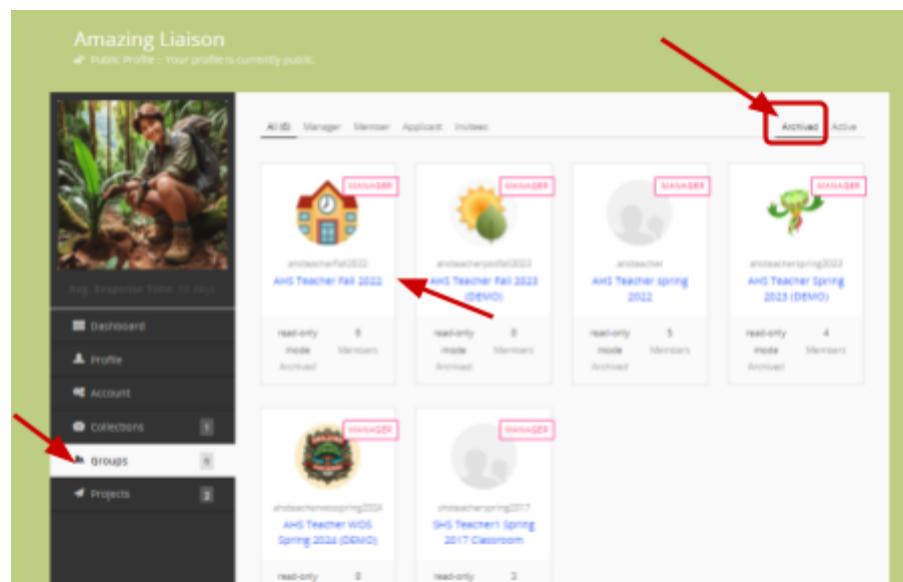
- **Please continue to complete and submit your weekly Liaison Reports.** The form takes only a few minutes to complete at this stage.
- **Consider mentoring a team for another Group.** Groups with later start dates often struggle to recruit mentors because most mentors have already accepted all the teams they can manage. Setting your profile to 'Available' and checking the 'Groups Seeking Mentors' gallery to apply to mentor a student team is a great way to support other teachers and students.

At the end of the service period (academic year for MPST members), you will receive a package from PlantingScience as a thank-you for your service. This package will include an official letter documenting your service and a PlantingScience T-shirt.

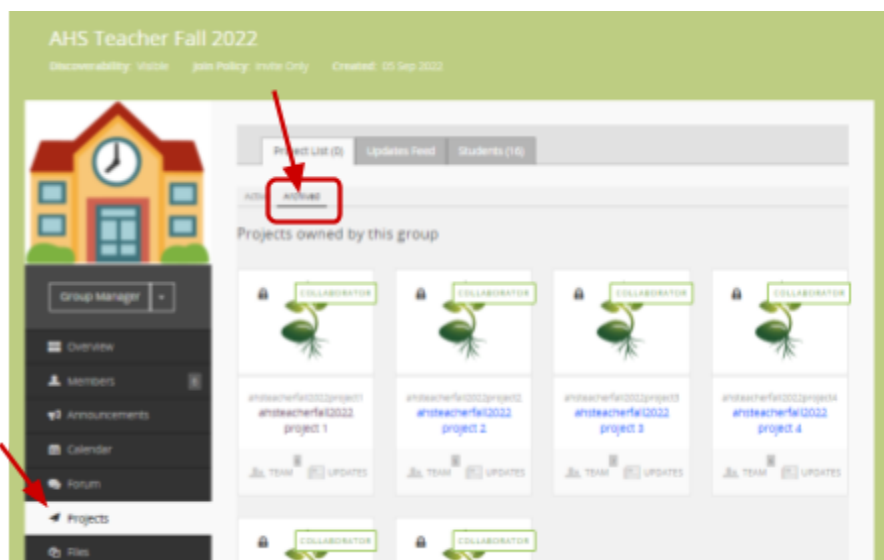
After the Session

When the session closes, the group and all of the projects it contains will be archived, and all student accounts will be disabled. However, you can always find your past groups and projects from your Dashboard.

Click on '**Groups**' in the side menu, and then find the '**Archived**' link in the upper right corner of the view. All of the groups will be in 'read-only' mode, but you can click the name of the group to reopen the Group page.



The projects will also be archived, but you can find these by clicking on **'Projects'** in the side menu of the archived group page, and then clicking the **'Archived'** tab at the top of the Projects pane.



Depending on your interactions during the session, the Teacher may ask to stay in contact. You are welcome to continue to communicate if you wish! However, you are strongly advised not to maintain any private conversations with students. If they locate and reach out to you outside of the platform, keep any interactions public.

Can I do it again?

Yes! There are no limits on the number of times you can apply to be a member of the Master Plant Science Team. Just be aware that due to the nature of the program, early career applicants may take selection priority.

Additional Resources

Sample Introduction Text

Because the liaison's role in the mentoring process may be unclear, Mentors and students may misunderstand what you are there to do. One way to address this is to explain your role in your introduction. You are welcome to use the following example text and modify it as needed

In the Group Forum

You will want to post a message similar to this to the Group Forum under 'Start Here!':

Hi [Group]! My name is [your name], and I will be your liaison during this session!

[Describe your background, research, and interests here.]

As a liaison, I'll be working with [Teacher] to update you on what the class is doing each week. I'll also moderate the project Update Feeds and may post occasionally.

Please don't be alarmed if you see a message from me on your Project. If you have any questions, let me know!

On the Project Feeds

Liaisons are strongly encouraged to post an introduction to the Projects as well. Not only does this ensure students know who you are if you need to post messages later, but it also reminds Mentors that you are part of the team. Otherwise, they may see your posts and assume another mentor has replaced them. The following sample text may be helpful:

Hi [Team name]! My name is [your name], and I will be your liaison during this session!

[Describe your background, research, and interests here.]

As a liaison, I'll be helping [Teacher] keep conversations flowing smoothly. I probably won't post often, but you may hear from me occasionally, especially if your Mentor has to step away for a few days. I'm excited to see how your investigation goes!

Remember: You can post to all projects at once on the [Project Update Feeds tab](#).

Typical PlantingScience Duties by Role

	Before the Session	Before students begin their projects	While students are working.	After projects are complete
Teacher	Prepare to teach the selected Investigation Theme activities. Obtain permissions as appropriate. Contact Liaison and discuss plans.	Create Projects. Create Student Accounts and add them to Project teams. Check in with Liaison weekly to update plans. Post to the Forum (Introduction, Schedule, and Resources).	Monitor student conversations. Facilitate students' classroom work. Check in with Liaison weekly to update plans.	Encourage students to complete Info fields and say goodbye. Check in with Liaison to let them know students have finished. Nominate Star Projects.
Student		Log into the Platform. Accept the Terms of Service and change their password. Post an introduction.	Post messages to Scientist Mentor. Complete investigation in class. Update the Project Info and upload files or photos.	Complete the Project Info fields. Share the results with their Mentor. Thank the Mentor and say goodbye.

	Before the Session	Before students begin their projects	While students are working.	After projects are complete
Mentor	Set profile to Available.	Watch for and accept invitations. Read forum posts for details. Post an introduction.	Post messages to students every 1-3 days. Post questions and time away updates to the forum.	Say goodbye.
Liaison	Contact the Teacher to discuss plans.	Post to the Forum (Introduction, 'Need to step away?', Teacher topics if needed) Send and manage Mentor invitations. Assign Mentors to Project teams. Complete weekly reports.	Moderate project conversations. Post to student projects when a mentor has not responded in 2-3 days. Contact mentors that are not posting. Complete weekly reports.	Nominate Star Projects. Complete weekly reports.

Liaison Session Preparation Checklist

As you support your assigned Teacher, please reference the following list to ensure all necessary steps are taken for setup.

At the beginning of the session:

- ☐ [Log into PlantingScience and update your user profile page.](#)
- ☐ [Connect with your assigned Teacher](#) and communicate your planned schedule.
- ☐ [Check the Group Information](#) on the group page to ensure accuracy, especially that your start and end dates are correct.
- ☐ [Create your class projects.](#)
- ☐ [Create your students' accounts](#) and assign them to their projects.
- ☐ [Introduce yourself on the Group Forum.](#)
- ☐ [Create Group Forum posts](#) to orient Mentors as they join.

About 1 week before starting the unit (2 weeks before students log in):

- ☐ [Send out Scientist Mentor invitations.](#)
- ☐ [Set the Group's Join Policy to 'Restricted'](#) (if desired)
- ☐ [As Scientist Mentors join, assign one to each project.](#)
- ☐ [Once enough Scientist Mentors have joined, cancel any remaining invitations and set the Group's Join Policy back to 'Invite Only'](#)
- ☐ [Post to the Group Forum](#) to welcome Scientist Mentors and provide an update on the planned schedule of activities.

Tutorial videos demonstrating how to complete these tasks are available on the [PlantingScience YouTube channel](https://www.youtube.com/@plantingscience) (www.youtube.com/@plantingscience). If you have questions about the setup process, please reach out to the PlantingScience team at psteam@plantingscience.org

Managing the Email Load

One aspect of PlantingScience that may prove challenging is the amount of e-mail generated during student participation in the program. As a Group Manager, you will automatically receive an e-mail through the platform when:

- A member posts a message to the Group Forum (unless [you have adjusted your forum e-mail settings](#)).
- Scientists accept or decline invitations to join.
- Scientists apply to work with your Group (if the [Join policy is set to 'Restricted'](#)).
- Scientists or students post to any Project Update feed.
- “At-Risk Projects” messages that list projects where activity may be slow.

This, in addition to the regular communications and newsletters the PS Team may send you, can overwhelm your inbox. Yet, these messages are intended to protect student privacy and keep you informed about what is happening online, so they cannot be disabled.

However, most e-mail clients allow you to create incoming mail rules to organize these messages as they arrive. The procedure for doing so will depend on your email client. The following links may be helpful⁵:

- **Microsoft Office/Outlook** - <https://support.microsoft.com/en-us/office/manage-email-messages-by-using-rules-in-outlook-c24f5dea-9465-4df4-ad17-a50704d66c59>
- **Google Mail/Gmail** - <https://support.google.com/mail/answer/6579?hl=en>
- **Zoho Mail** - <https://www.zoho.com/mail/help/filters.html>
- **Proton Mail** - <https://proton.me/support/email-inbox-filters>

If you are using a ‘work’ account, you may also want to talk to your institution’s IT team; they can provide more specific guidance and support.

⁵ If your school uses an e-mail client not listed here, try doing a web search for the name of your client with ‘filter rules’ (e.g. Protonmail filter rules). The help pages are usually easy to find.

Suggested Rule Criteria

Most teachers simply create a folder or tag titled 'PlantingScience' and funnel incoming messages into it. However, **this can cause you to miss important messages from the PlantingScience staff**, especially if you aren't in the habit of checking past your Inbox.

Therefore, keep the following in mind:

- Messages from the PlantingScience platform (e.g. forum posts, invitation messages, and project updates) will come from support1@plantingscience.org. Filtering messages sent from this address into a separate folder is advised.
- Weekly PS newsletters will come from psstaff@plantingscience.org. You may or may not want to divert these messages into a separate folder, depending on your preference.
- Important updates and communications from the PlantingScience staff will come from psteam@plantingscience.org. **We strongly encourage you to keep these messages in your Inbox so you see them promptly.**

What if I am NOT receiving emails from PlantingScience?

If you are not receiving messages from PlantingScience, your e-mail client or firewall may be diverting them to your spam or junk folders. Check there first to see if this is the case. If your client offers the option to mark messages as 'Not Spam,' please do this.

If you are not receiving messages and no messages are appearing in your spam/junk folder, you may need to contact your provider or institution's IT team to inquire about this. Occasionally, university or office firewalls divert messages before they reach your inbox, assuming that a message is spam. You must ask your IT team to 'whitelist' the plantingscience.org domain.

If you have any questions, please reach out to psteam@plantingscience.org.

Student Privacy and Permissions

PlantingScience's program and platform are designed to protect student privacy in compliance with [COPPA](#) and [FERPA](#) requirements:

- Students' accounts are not connected to their school email addresses.
- Students cannot access private communications on the platform; all interactions are visible to the teacher and PS staff.
- Students are not permitted to use their last names on the platform. (If desired, teachers can also assign nicknames for students when creating their accounts.)
- Student posts containing online document links (e.g., Google Docs, Dropbox, etc.) will be edited to remove these links, as shared documents may provide access to their full names. Such links will be redacted when found.
- Uploaded photos and files should be checked to ensure students' full names are not visible.

Depending on their situation, Teachers may be asked to obtain and submit the following permissions:

- **Administration Permission**

Admin approval is required the first time a school participates in PlantingScience. Teachers should direct the building principal to 'Information for School Administrators' (<https://plantingscience.org/about/admininfo>) on the PlantingScience website to get this permission. The form can be completed and submitted online.⁶

- **Parental Permission**

Teachers in the United States whose classes include students under 13 must obtain permission from their legal guardians before they are permitted to access the platform. Student families should be directed to 'Information for Student Families' (<https://plantingscience.org/about/parents>) on the PlantingScience website. This page explains the security measures taken and links to the permission form.

If you have questions about student privacy or these permissions, please reach out to psteam@plantingscience.org.

⁶ If you are participating in PlantingScience through a research initiative (e.g. Digging Deeper), participation permission may have been obtained through one of our research partners. In this case, completing the permission form on the PlantingScience platform is not required. Contact psteam@plantingscience.org if you have questions.

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