

Need to share a computer screen or whiteboard to an iPad?

I have a pupil with a visual impairment. How do I share my computer screen or whiteboard to their iPad?

In this article, I will explain how to mirror or share content from a computer screen to an iPad using [Microsoft Teams](#) which is free and available to all schools in Scotland via [Glow](#).

How to share information from a teacher's computer to a learner's iPad is a question we are often asked at CALL. For a learner with a visual impairment, mirroring or sharing content from a teacher's computer and/or whiteboard to their device has many benefits, for example the learner;

- is not restricted from sitting at the front of the class to see the whiteboard (or the teacher's computer),
- is free to break out into groups to participate in group work,
- can control how they want to view or interact what is on their iPad by pinching to zoom or by using the iPad's built-in accessibility features,
- can take screenshots of what is being shared which can be annotated,
- can use 'Screen Record' to record anything that is being shared. Recordings can be saved and viewed later for revision purposes.

Depending on the needs of the learner, mirroring or sharing information to a learner's device may eliminate the need to buy a video magnifier, which are often expensive and require the learner to assemble and disassemble the device, stand and camera, between classes.

Also, when a teacher is using a whiteboard to teach, either interactively or to highlight information on the board, there is a danger of the teacher blocking the view of the video magnifier.

How does it work?

Sharing or mirroring content from a whiteboard to an iPad requires the devices to communicate with each other, usually via an Internet or Wi-Fi connection between the teacher's computer/whiteboard and the learner's device. An interface, such as an app is usually required to 'pair' everything together.



There are numerous 'mirroring' or 'sharing' apps available and although most are free at the point of download, costs can be incurred over time.

Examples include:

- [Join.me](#)
- [Splashtop](#)
- [Classflow for Prometheon boards](#)
- [TeamViewer](#)

At CALL we use [Reflector for mirroring iPads](#) to our desktop for presenting webinars. Rather than installing an app to the iPad, Reflector is installed on a laptop and we use the iPad's built-in 'Screen Mirroring' tool to couple the devices.

However, this has been problematic for us as the university has blocked certain 'media ports/firewalls' because of security concerns.



We have made some tweaks and workarounds to mirror our iPads, but many I.T. departments will prohibit mirroring because they are unsure whether information that is transmitted between the teacher's computer and iPad is entirely encrypted and safe.

We have heard that some local authorities have approved certain screen sharing apps that they allow through their firewall, although this often involves a great deal of negotiation between the teacher and I.T., and may take some time for the apps to be approved.

Also, teachers do not always have the necessary permissions to install software on devices due to them being managed and locked down. It may appear as if mirroring is a no-win situation!

Magnification software

Some dedicated magnification programs such as SuperNova have secure mirroring tools built-in, e.g. [Connect & View](#), however, this is only currently compatible with a laptop.

What about using wires to connect?

One option is to explore alternatives such as connecting devices with physical adapters, such as VGA or HDMI and taking a feed from the computer or whiteboard to the learner's device.

This will eliminate security issues, but it can be a real faff with cables trailing around the classroom – the learner's freedom to sit where they choose is also restricted as is the device you can connect to, e.g. a Windows computer.



In addition, wiring everything together could involve a great deal of fiddling with graphic cards, video 'send and receive' cables as well as a myriad of connectors etc.

Is there an alternative?

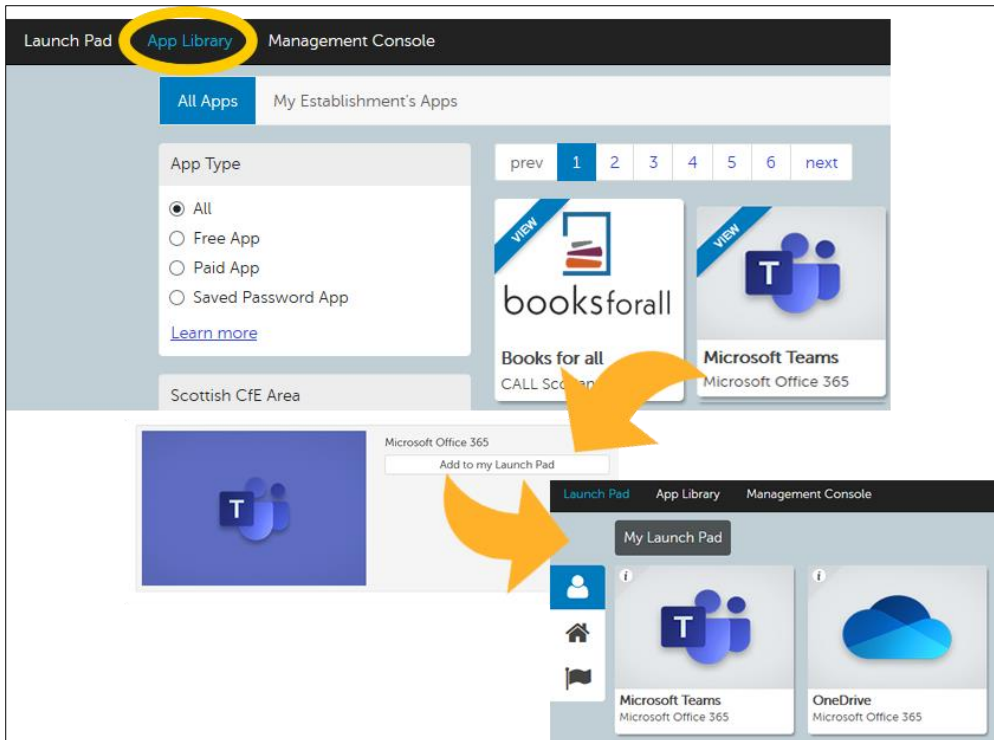
Yes, I think there is an alternative, one that is **secure, freely available to all schools in Scotland via Glow and is easy to set up – Microsoft Teams.**



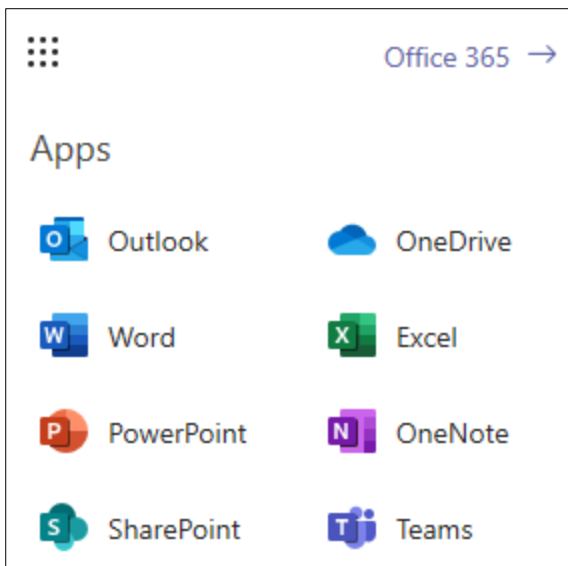
Here's how to do it. The first step is to set up Teams on the teacher's computer, then set up Teams on the learners iPad.

On the teacher's computer.

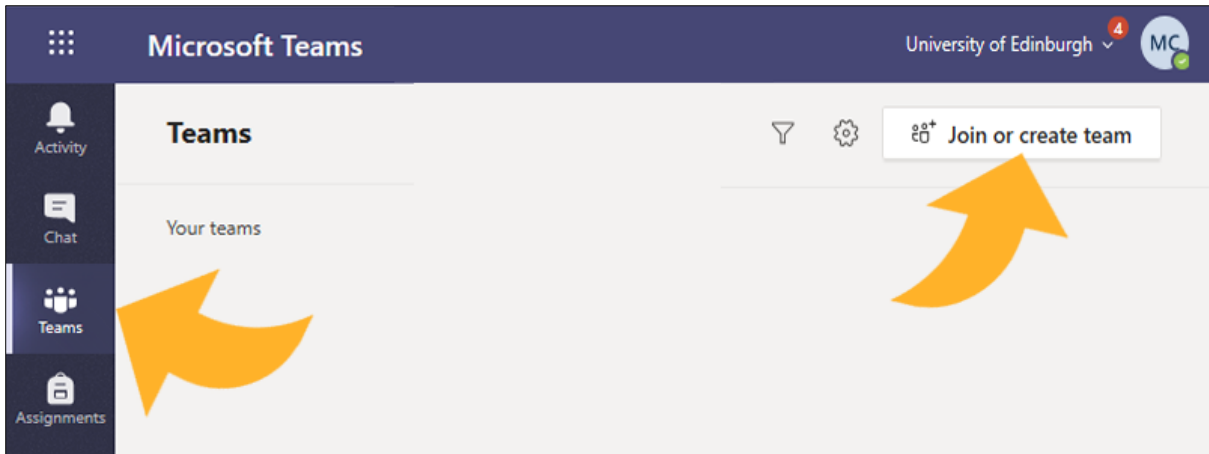
1. Login to your Glow account and under the '**Launch Pad**' area look for either the Microsoft OneDrive or Microsoft Teams app. If neither of the apps are in your Launch Pad you can add them by going to **App Library** and choose '**Add to My Library**' from the popup window.



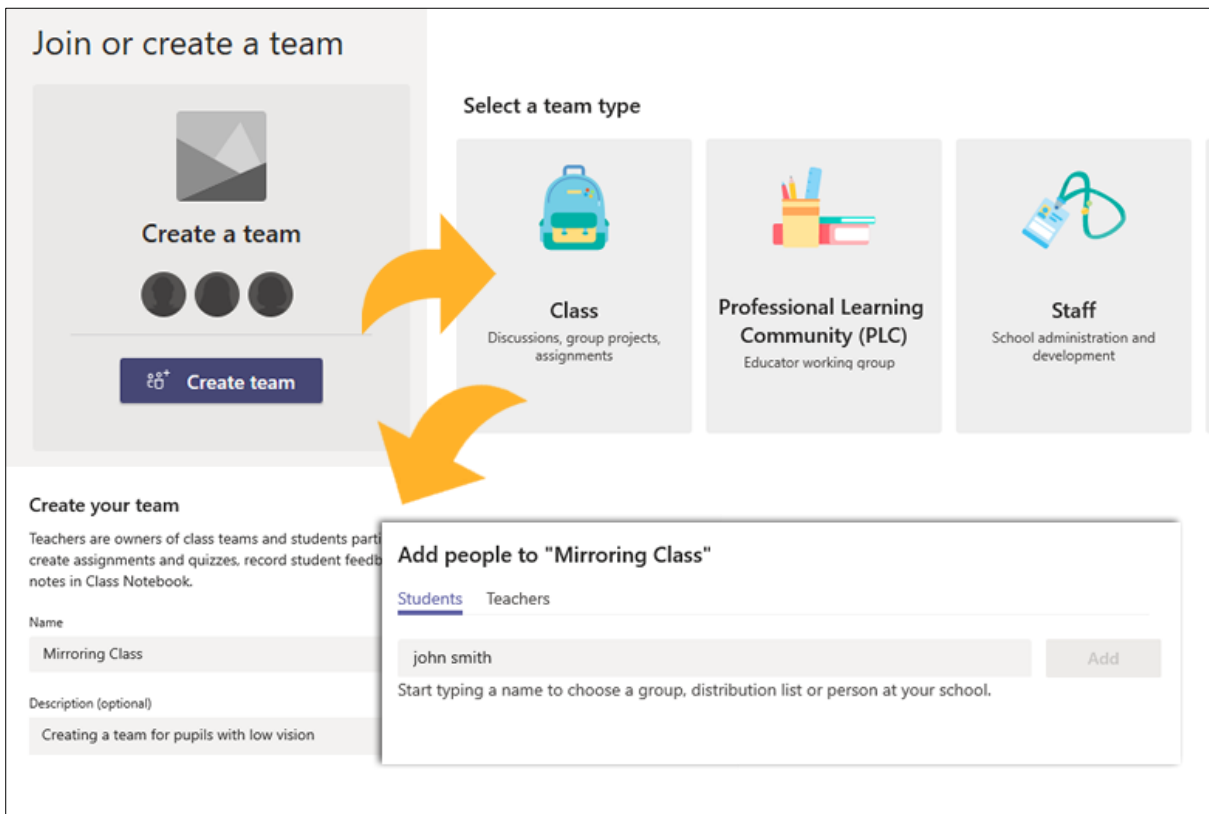
2. Go to your Launch Pad and select the Microsoft Teams app to open it up.
3. Microsoft Teams can also be accessed from the Microsoft OneDrive app – from the top right side of the browser.



4. The next stage is to create a new Team or Class and to enrol your learner or learners. Choose 'Teams' from the left side and then 'Join or create a team' from the top right.

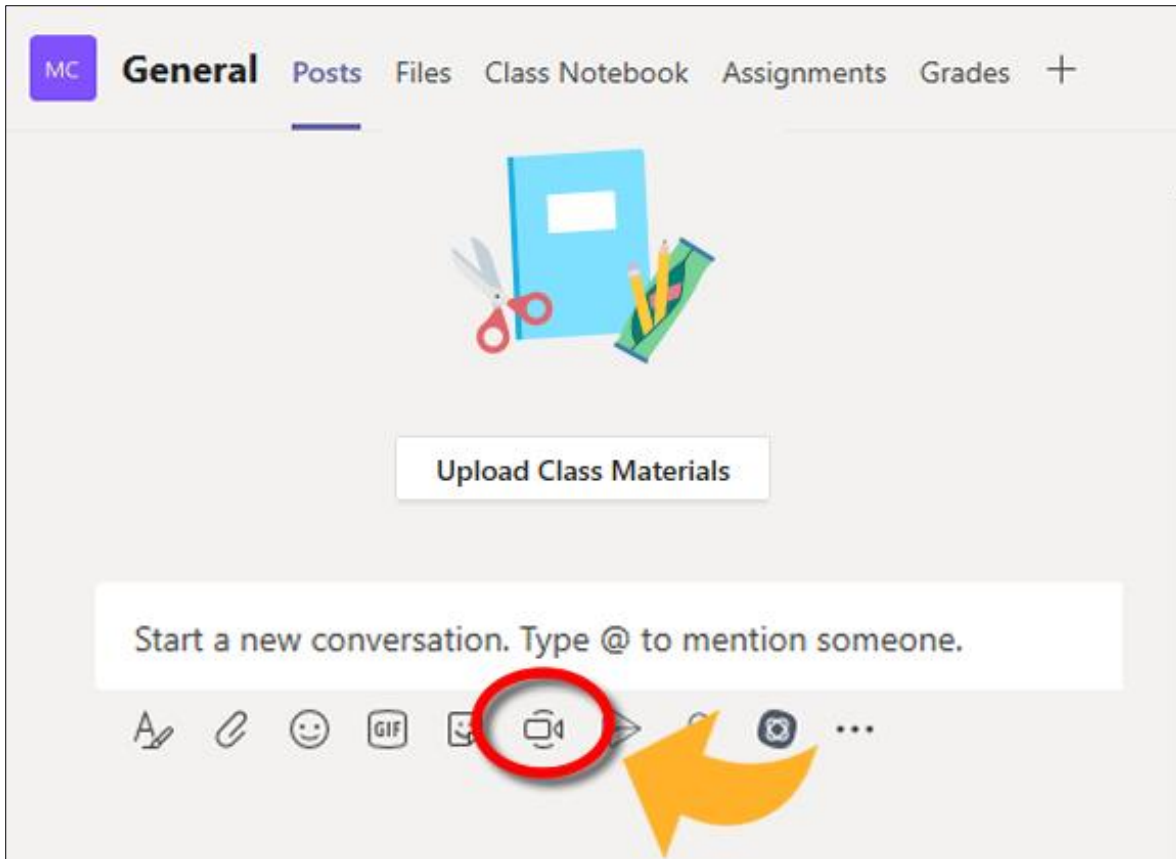


5. You will then be prompted to go through the process of giving the Team a name and enrolling learners to the Team.

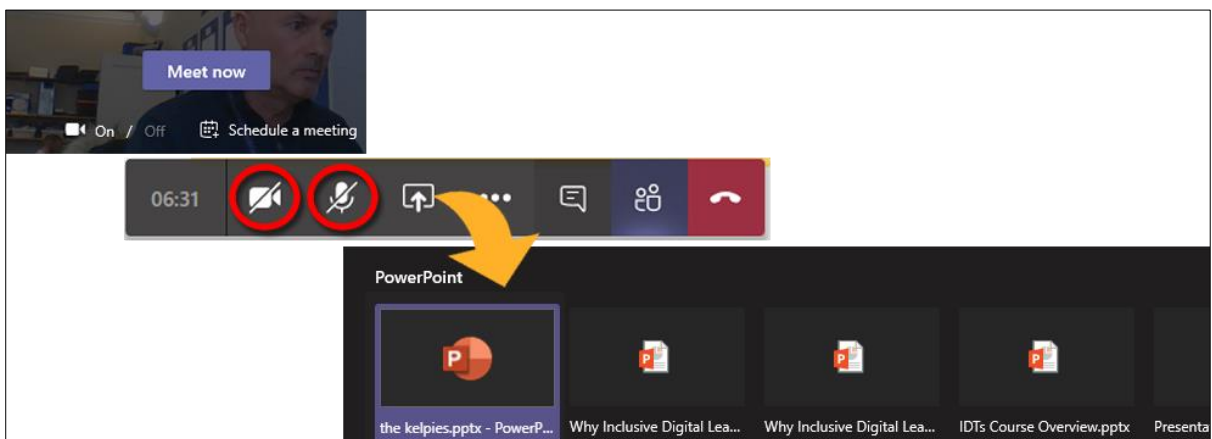


After completing this stage your Team is ready to go. Here you can upload and share class materials such as files or use the chatbox to start discussions.

But the **most important feature for mirroring** is the Video or '**Meet Now**' icon at the bottom of the page, under the 'Conversation' box.



6. Open the files you want to share with the learner.
7. When the 'Meet Now' icon is activated it automatically launches the video feature – make sure the 'Video' and 'Audio' are turned off as you only want to share the PowerPoint presentation or any other file.
8. When you activate the 'Share' button to the right of the video and audio icons any files you have open on your desktop will appear – choose the file you want to share and it will appear in Teams - you are ready to mirror!

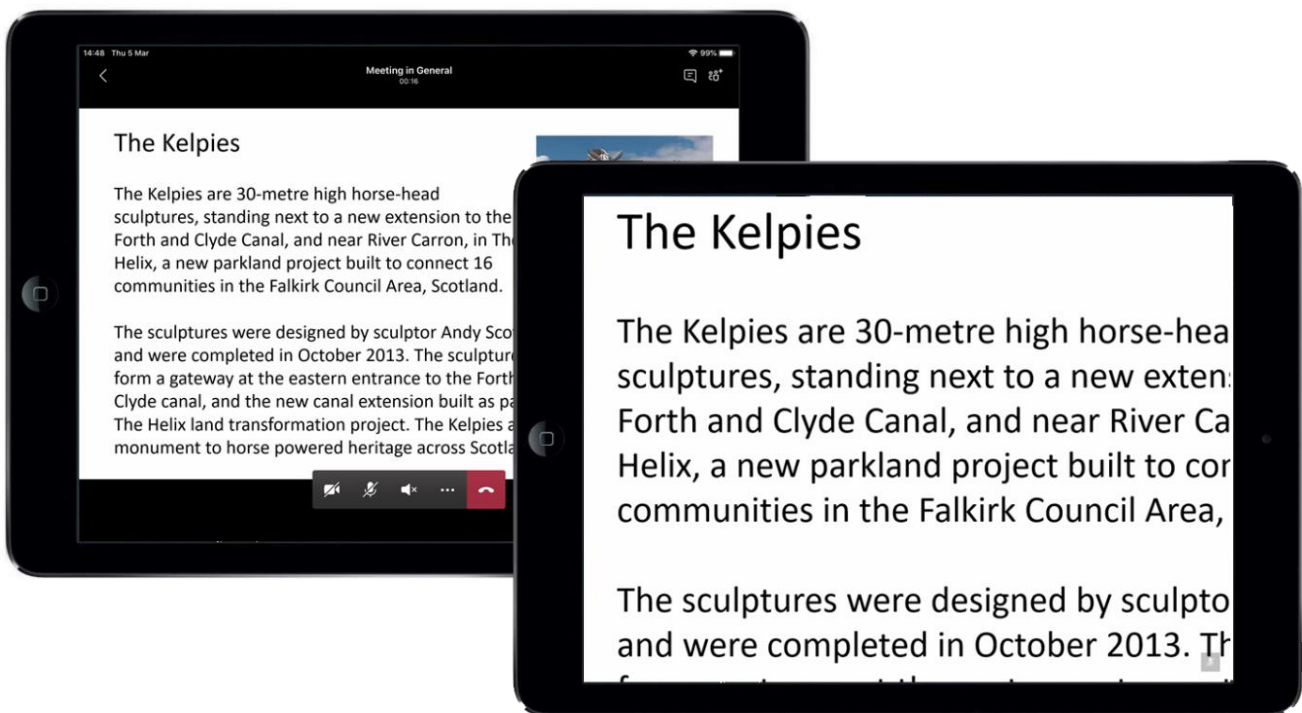


On the learner's iPad

1. The learner will need to have the Microsoft Teams app (free) installed on their iPad.
2. The learner must sign in to their Teams account and choose the correct Team, probably the default that you (or the teacher) have created.
3. When the Teams page appears, select 'Join' from the top right side.

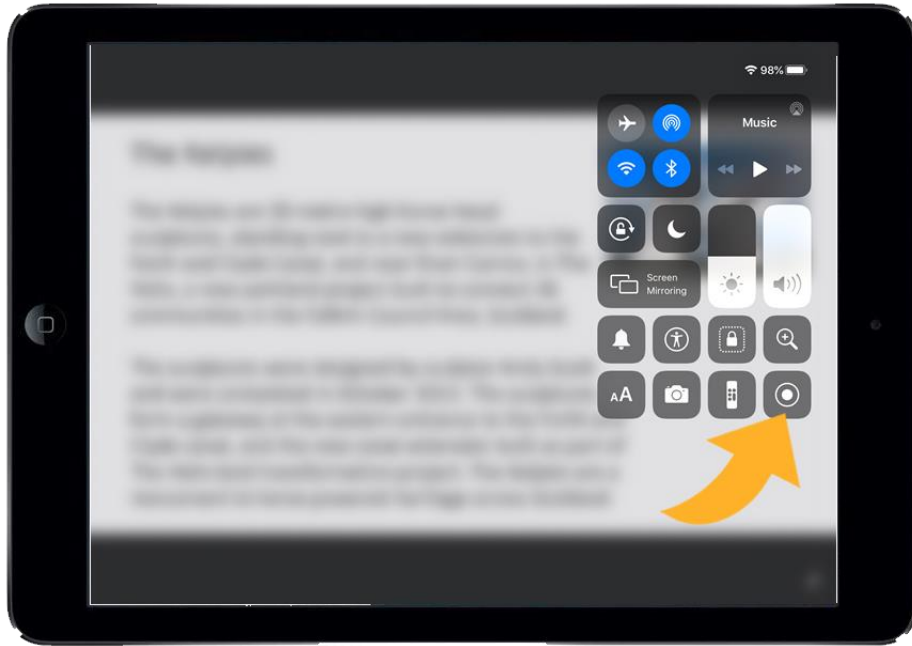


4. The teacher's desktop or file will appear on the learner's iPad. The learner can zoom in and out of the screen to enlarge the text.



5. By using the iPad's built-in video and audio recorder the learner can record the presentation by tapping the 'Screen Recording' icon in the Control Centre.

To stop the recording tap the Screen Recording icon and the video is automatically saved to the Photos app.



Finally, to end the Team session the teacher selects the 'end meeting' button on the right side of the bottom strip.



By Craig Mill, CALL Scotland.