## Microhack

A hackathon is a sprint-like design event where programmers and designers collaborate to solve a problem and create new products.

A microhack is just a short version of this that can work in a classroom. The focus here is on speed and creative, collaborative design thinking and problem-solving.

1. Preparation: Select/nominate learners to act as team leaders. Present teams with a problem to hack: a product to create, a problem to solve, a design challenge. Team leaders are given five minutes to develop a plan for how to solve the problem.
2. The Pitch Session: Team leaders pitch their plans to the class in 1 minute, then class members choose a team to join.
3. The Hack-It Session: Teams have 45 minutes to develop or design their solution. The team leader should spend some time explaining the plan in more detail and the team should give feedback and collaborate on the design process.
4. The Showcase: Teams present their hacked solutions to the class. The teacher may opt to select a winning team.

Some classroom hackathon topic ideas at [this site](https://www.theedadvocate.org/10-amazing-hackathon-ideas/).

### Microhacks adapted for students learning from home

A microhack is a short version of the class hackathon that that can be implemented in a virtual classroom. Teachers can vary the time frame for this activity according to the needs of learners, but keep it short so the activity remains a design sprint. The following modifications can enable microhacks while students are learning from home:

1. Preparation: This stage of the microhack can be facilitated by email. Teachers send learners an activity overview and pose the driving question to team leaders.
2. The Pitch Session: This stage of the microhack can be facilitated using student video. Team leaders could film themselves making their one-minute pitch then share it with peers using a platform like [Microsoft Stream](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/126#.Xo-uPfGKJCs.link). Invite students to contact you with team membership requests or post their team requests in a collaborative digital document or virtual classroom.
3. The Hack-it Session: This stage of the microhack can be facilitated using a collaborative virtual whiteboard such as [Google Jamboard](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/593#.Xo-uPZwHfRY.link). Teams can be assigned one page of a Jamboard and use it to design their solutions.
4. The Showcase: Teams summarise their solutions or designs on their Jamboard. They could use written sticky notes, images or photos. They could consider filming themselves explaining their solution and posting it on Microsoft Stream, then placing a link to the video on their Jamboard. A reflection template could also be provided for each student to complete.

**Alternative digital tools**

* For older students, the Hack-it session could be enhanced using a video conferencing tool such as [Zoom](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/603#.Xo-uPd6ix4E.link) to enable conversation between teammates as they design. The teacher could create a breakout room for each team.
* [Padlet](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/592#.Xo-uPVITwqk.link) or a [Google doc](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/66#.Xo-uPX5DNDo.link) could be used in place of Jamboard.
* To add an element of demonstration, teams could create a presentation using [Microsoft Sway](https://app.education.nsw.gov.au/digital-learning-selector/LearningTool/Card/123#.Xo-uPZ12cLw.link) to present their solutions to the class.