

# Junior Programmer Pathway



## Teacher tips

This document is a useful resource for bringing Unity into your classroom. Below, you will find tips and resources to help you in facilitating this pathway in the classroom and creating an inclusive and supportive teaching environment.

The following selected tips and interviews are available as part of the [Unity for Educator Course](#) – a course specifically aimed at educators interested in teaching Unity for the first time.



### Diversity and inclusion

Championing diversity and inclusion builds a sense of belonging for students of all genders, ethnicities, sexual orientations, and socioeconomic backgrounds. Celebrating and embracing diversity and having high expectations for all students leads to greater learning outcomes and future success. This is particularly important in technology industries where women and many racial and ethnic groups are underrepresented.

Watch [this video](#) to understand strategies that Unity educators use to champion diversity and inclusion in their learning spaces.

### Co-learning

Unity's learning approach is rooted in the "constructivist theory of learning." Within the constructivist theory, people tend to learn best by creating meaning and understanding from their experiences, and from the community around them, which helps them achieve their goals.

To support this approach, educators are most effective when they take on the role of "guide" and "co-learner" alongside their students. Together, you navigate the development process, work through challenges, and learn along the way. Many Unity educators find that the co-learning approach reduces feelings of pressure to be the "expert" when they are at the beginning levels of learning the technology and workflow.

Watch [these videos](#) to hear why Unity educators think this approach is important when teaching Unity.

### Differentiation

Students come to Unity with different experiences, learning styles, and abilities, and will grasp Unity concepts at different paces. Content and resources on Unity Learn have been created to provide learners of all ability levels with an opportunity to learn at their own pace, through clear step-by-step

tutorials and challenges. This makes differentiation in the classroom more manageable. Watch [this video](#) to see how educators approach differentiation when teaching Unity. Having a structured course with incremental steps of difficulty might cater to your learners on one level, but we should remember that differentiation is more than just different work. Differentiation activities should give students different routes to achieve the same goal.

The [Project Strategy Guide](#) can help with differentiation. It provides support for students on getting started or getting unstuck and helps them to extend themselves.

### **Taking students through the project planning process**

Project planning, simply put, refers to all of the steps you take to ensure your project is a success. A good project plan should contain:

- Your project objective(s)
- The project scope (to avoid “project creep”; i.e., your project becoming unmanageably complex as new ideas are added)
- A list of the most important project deliverables
- For groups, a breakdown of what needs to be done (tasks/activities), to what extent (parameters), by whom (personnel), and when (time/deadline)
- For groups, a communications plan – who will report to whom, and when?

For any creative project, planning is crucial, and especially when dealing with complex systems where there are many moving parts, like games or simulations. Planning keeps projects focused, timely, and most importantly, provides accountability and the means to objectively review progress.

It is also important to remember that a plan is not set in stone. Things can change quickly once a project is underway, so it's essential to continuously check progress against the plan, and adjust if required.

Since project planning is such a widely transferable skill, this phase of a project is a rich teaching and learning opportunity which shouldn't be rushed. Planning can take many diverse forms; interactive, visual, diagrammatic, lists, or a combination of all of these, so feel free to experiment.

Here are some useful resources for project planning:

- [Project Design Document](#) - from the Create with Code course
- [VR Project Design Document](#) - from the Create with VR course
- [Project Charter Document](#) - from the Introduction to [Project Management](#) tutorial
- [Goal Setting/Learning Plan Guide](#) - this tutorial supports learners to set goals and milestones.

### **Paper proto-typing in the planning phase**

Prototyping is a process that is used widely across a range of creative industries to help save time and costs in the development process. Paper prototyping is a powerful way for your students to quickly visualize a project, test various ideas and get feedback before even opening Unity.

Watch the video at [this link](#) to see how Unity educator Mark Suter uses paper prototyping in his course.