

SUCCESS = SOFT SKILLS + HARD SKILLS + APPLIED SKILLS

NCLab provides learners with carefully sequenced, game-based courses, a Creative Suite of application tools, and project-based curriculum that can be used in schools, libraries, clubs, and trainings.

Soft Skills: interpersonal and character skills	Hard Skills: area-specific, measurable skills	Applied Skills: skills required for specific jobs and careers
Communication Questioning and responding; understanding directions; presenting results.	Vocabulary and Writing Skills Instructions, model descriptions, game narratives, commands, keywords, spelling, and syntax; commenting within programs.	Technical Documentation Writing technical specifications, communicating the why's and how's effectively; training.
Collaboration Collaborative problem-solving and project-based learning; shared sandbox and game environments.	Collaborative Coding and Modeling Splitting complex programs and 3D models into simpler tasks, solving them, then combining the results.	Teams in the Workplace Solve real world problems as a team, by writing programs and building 3D models.
Problem-Solving Perseverance, efficiency, planning, breaking complex tasks into simpler tasks, using design cycles, understanding the value of failure.	Using Appropriate Tools Solving problems using Python and other programming languages; using Constructive Solid Geometry (CSG) to build 3D models.	Solve Real World Problems Write programs and create 3D models for specific applications such as games, databases, complex calculations, prototyping, machining, and robotics.
Adaptability Ability to adapt existing solutions to new situations; flexible thinking.	Adjusting Programs and 3D Models Modifying existing computer programs and 3D models in response to new conditions.	Responding to Change Products, computer programs, supply and demand, design specifications and other factors constantly change.
Critical Thinking and Observation Use common sense and feedback to evaluate and improve results.	Logical and Spatial Reasoning Using logic to write efficient programs; using spatial reasoning to build and manipulate 3D models.	Advanced Applications Advanced Computer Aided Design (CAD), programming languages, and computational tools.
Creativity and Innovation Looking for novel solutions and designs. Thinking outside of the box.	Performance Tasks Writing code and building 3D models for one's own projects.	Innovating in the Workplace Inventing and advancing new technology.
Awareness of Cause and Effect Understanding the consequences of one's actions.	Understanding Constraints Understanding computational complexity, software and hardware limitations, impact of human error.	Social and Environmental Impact Assessing costs, availability of resources, short and long term impacts.