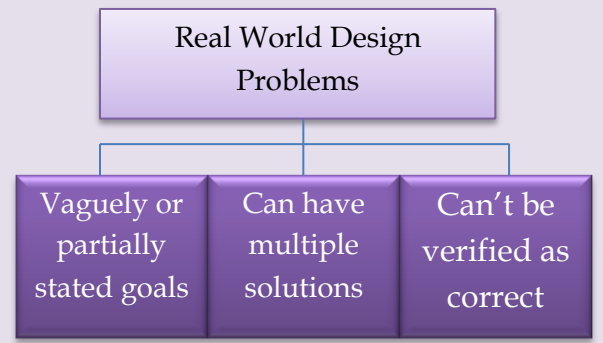


The CAD (Computer-aided design) program has helped students, who are not “graphically literate”, take their ideas and make them into graphics that can be used and shared. Google’s SketchUp is one example (click picture for link).



How you frame a design problem determines the kind of solution you create

This makes design particularly vexing to solve and hard to encode

“Using simulation software can support students’ thinking and early design planning. In science classrooms, simulations can help students build mental models of how the physical world works....When designed well; simulations can bridge abstract theories and laws of nature with real world, making the former more understandable, learnable, and transferable.” (Pg. 76)

Problem solving and designing share some inherent similarities	
Define the problem	Identify a need or opportunity
Develop alternative solutions	Generate design ideas
Select the solution	Plan and make a prototype or product
Implement and evaluate the solution	Evaluate and reflect on the design

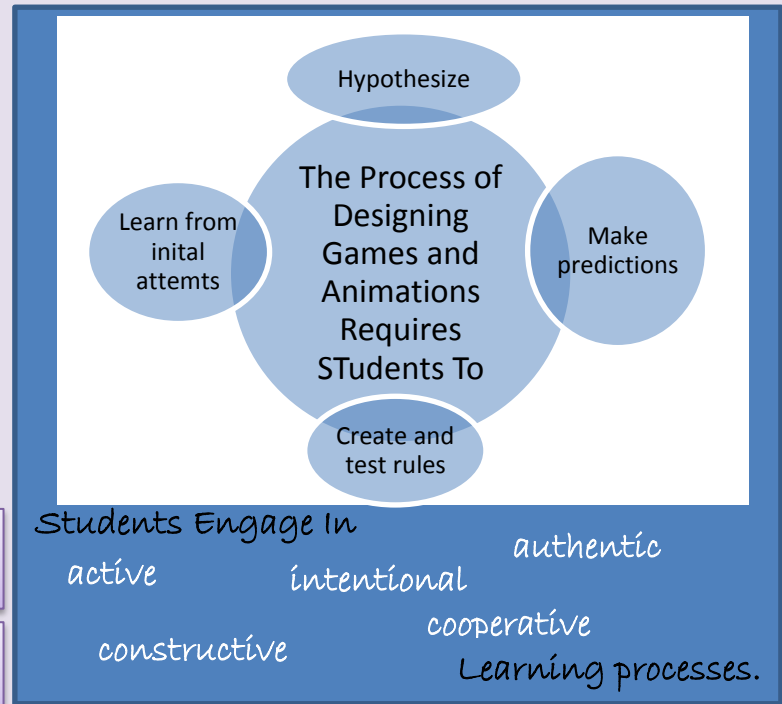
Today’s kids are comfortably accustomed to interacting with multiple media inputs simultaneously.” (Pg. 92)

Asynchronous Communication

Synchronous Communication

- Allows people to communicate regardless of location or time zone
- Allows students to reflect on their responses before making them
- Different kinds of thinking can be scaffolded in asynchronous online discussions.

- Instant, real-time exchange of ideas
- Increases communication and allows easy collaboration
- Due to difficulty in monitoring, teachers should carefully consider whether these conversations are a benefit.



Presentation resources (not just PowerPoint)

Google Presentations, SlideShare & Prezi