WHY DEDICATE SPACE FOR MAKING?

- Satisfies the demand for STEM programs in the curriculum and the workplace
- Houses tools needed to create new knowledge and products through experimentation and hands-on learning
- Inquiry driven passion projects
- Relevant and meaningful learning
- Depth and breadth in constructing knowledge, retention, and transfer
- Can be designed around state standards
- May encourage both male and female pursuit of STEM careers

COMPOSITION OF A MAKERSPACE

LOW TECH
- Brain Games
- Legos or K'nex
- Damaged or worn electronics
- Coding with code.org
- Recycled materials
- Basic Tools
- Work area

MEDIUM TECH
- Spheros
- Littlebits
- Audrino circuitry

HIGH TECH
- 3D printers
- Laser cutters
- CAD software

THE MAKER PHILOSOPHY

- Learn to learn: Learning by doing
- Engagement in passion-based projects
- Failure is an opportunity to learn
- It does not have to be about technology

EDUCATIONAL SHIFT, A CALL TO ACTION

- Changing instructional and research methods demands a shift in the focus from managing library collections to facilitating engagement and collaboration in learning and research.
- Teaching should be the primary role of the librarian.
- In the Maker Education Initiative survey:
  - 50% reported alignment with Next Generation Science Standards
  - 40% reported alignment with the Core standards
  - 50% reported fostering skills such as problem identification, effective communication, and evaluation and refinement of creative ideas

CONCLUSION

Making is a constructivist model of learning and inquiry. “School libraries have always been a destination of thinking and learning, but now they are also the destination for doing, creating, and producing.” They establish an active integration of design thinking and free exploration. School library makerspaces begin with students sharing inspiring ideas and evolve into curriculum-based projects intended to increase student achievement and engagement.