

## Maker Literacy Student Learning Outcomes

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### Authority is Constructed and Contextual

#### Student Learning Outcomes

##### Foundational

- Students understand that information can come from diverse voices, and that authority can be distributed in a makerspace environment.

##### Emerging

- Students will develop the skills to organically evaluate information sources through hands-on experimentation and iteration.
- Students explore the dynamic nature of authority in maker learning environments. (Information does not always come from traditional authoritative voices, but can come from the student themselves or from peers.)

##### Culminating:

- “Students will recognize that authority or credibility is contextual in relation to time, discipline, methodology, and other factors and traditional notions of granting authority might hinder diverse ideas and world views.” (MUL SLO Draft)
- Students will gain confidence in their own authority in evaluating objects and information sources, and participate hands-on in the creation of objects and information.

### Information Creation as a Process

#### Student Learning Outcomes

##### Foundational

- Students will recognize the diversity and abundance of creative tools and technologies that comprise the world of makerspace creation.

##### Emerging

- Students understand that evaluation of the products of makerspace creation can be subjective and vary widely depending on the context, community, and user base.

##### Culminating

- Students develop increasingly sophisticated methods of creation as well as the ability to assess value of created objects/information, and the ability to select the proper tools and medium for a project based on an understanding of the user and the need that they are fulfilling.

## Information Has Value

### Student Learning Outcomes

#### Foundational

- Students become aware of the power inequalities that exist within the maker movement.
- Students recognize that maker projects/creations are complex information objects and carry implications for intellectual property including copyright and trademark.

#### Emerging

- Students begin to challenge the existing power structures within the maker movement and the world of information.
- Students explore their rights as creators as to how their work is shared with others.

#### Culminating

- Students develop an enduring understanding of the power structures and inequalities present in the maker movement (and the world) and realize their own power to be change agents.
- Students become empowered to move from the role of consumer to the role of creator, independently navigating tools and materials to create original objects and ideas.
- Students become active contributors to the maker community through their creations, navigating complex questions about how their work is shared with others.

## Research a Inquiry

### Student Learning Outcomes

#### Foundational

- Students understand that first attempts at making often do not lead to the intended results.

#### Emerging

- Students develop failure positivity, iterating through multiple failures, learning from each and persisting on until a final product is reached.

#### Culminating

- Students form a “maker mindset”, which pushes them to use the maker process as an introspective tool to develop their own identity and also as a change agent to address problems in their community and society as a whole.

## Scholarship as Conversation

### Student Learning Outcomes:

#### Foundational

- Students learn that many hands and voices often contribute to the creation of ideas and objects.

#### Emerging

- Students can effectively work in teams where ideas and objects are developed collaboratively.

#### Culminating

- Students become active contributors to the scholarly conversation, both as creators of information and maker-creators.
- Students understand the basics of open-source licensing, copyright, and trademark, and how to properly license their work to maximize its impact.

## Searching as Strategic Exploration

### Student Learning Outcomes:

#### Foundational

- Students understand that information searching in the realm of maker learning may differ from that of traditional scholarship.

#### Emerging

- Students begin to explore both scholarly and popular information sources relating to maker projects.
- Students become comfortable with the iterative nature of makerspace information searching.

#### Culminating

- Students can effectively find and evaluate relevant information through a variety of means including scholarly databases, popular internet sources such as Instructables, YouTube, or even through peers.
- Students become comfortable with vetting information from non-traditional sources through the iterative process of trial and error.