GLOBAL FUTURES | SIDEQUEST GUIDE
Multi-Generational Makerspaces

OBJECTIVES:

Students will research and understand how people of different ages may have unique skillsets and funds of knowledge that can be shared. Similarly, they may also have unique physical and cognitive challenges that should be considered when designing a space for all ages.

Students blend their knowledge with research to design and construct a multi-generational maker space that promotes a truly collaborative learning and making environment.

MATERIALS:

- one worksheet packet per student
- pencils, crayons, colored pencils,
- any 3DuxDesign kit (or cardboard + tape)
- assorted craft materials including scissors, string, paint, miniature toys and figurines, pipe cleaners, popsicle sticks etc.
- assorted recycled/up-cycled materials – inspire students to be creative!

ACTIVITY:

Ideation. What are common differences between elderly and young?

Students will use their worksheets to independently list special talents/skills that may be unique to young and elderly people. They will include both physical and cognitive/emotional attributes. Students will then list special needs that might be more common in one of the two age groups

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Examples for younger ages may include:

positive attributes:

1. physical: very active, bold, close to ground and stronger bones so less likely to get hurt, small so can get into small spaces, typically have better eyesight and hearing
2. cognitive/behavioral: adept at navigating technology for research, communication and shopping, creative and out-of-the-box ideas, limited real world experience and understanding of risks makes them bold and daring to try new things

challenges:

1. physical: limited knowledge and experience learning special skills like musical instruments, fiber arts, cooking, crafts and woodworking
2. cognitive/emotional: lack of acquired knowledge and experience

Examples for elderly may include:

positive attributes:

1. physical: active yet cautious, calm and present in the moment, curious, patient
2. cognitive/behavioral: wise and experienced with a sense of perspective, storytelling and weaving together moments in history, routine, understand the meaning of relationships

challenges:

physical:

1. less active, cautious, less balanced and bones are more brittle, more limited range of movement, eyesight and hearing might be weaker or require adaptions
2. cognitive/emotional may be forgetful, lonely if away from family or in a nursing home, dependent on others

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Group Discussion.
Discuss students' ideas as a group. Leading questions may include:

- How might multi-generational collaboration benefit all?
- How might a makerspace be designed for all ages?
- How might we design the space to encourage collaboration between younger and older visitors?
    - "How could the young benefit?
    - "How could the elderly benefit?

Community Research (Optional):
Each student will create a questionnaire to gather more data from community members of all ages, including ways each age group could contribute to a collaborative space, which challenges and special age-related needs would also need to be addressed?

Careers of the Past, Present and Future (Optional)
In this community research extension, students take a deeper dive into the history and future of work. Lead a discussion in class about how some jobs of the past have changed with modern technology. As students gather their community data, have them include a more personal history from the elderly group including their area of work, the tools they used and how they have seen their profession change with technology over the years. Have students draft/jot down ideas about how they might incorporate lost skills from the past and modern technology into the design of the maker space to potentiate it's value.

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Design Process.
Read the story with the class.
Divide the group into teams of approximately 4 students per group.
Each team will design and build a model of their multi-generational maker space.

If students have participated in the community and career research, be sure that their design represents the some of the data collected.

PRESENTATIONS:

Teams will prepare a 2- 4 Minute presentation to pitch their design to the community board. Share an example of a 3DuxDesign Gold Star presentation with the group.
(https://www.3duxdesign.com/pages/3dux_global_futures_design_lab_bridgeport)

Multimedia presentations are encouraged and may be submitted to be featured on the Global Student Showcase. Students submitting presentations that are featured as a Gold Star Project will be awarded certificates and prizes.
https://forms.zohopublic.com/3duxdesign/form/Shareyour3DuxDesignProject/formperma/gy4g6Z6u4IKSwcTjrOdcjaOF_qAcqhCBZsC4MbUMkkE

Presentations should include:

- Introduction: the problem/mission
- Research findings / ideation.
- The design process with drafts, prototypes and/or notes and
- Final proposed solution including at least 3 specific design features that solve the problem

Presentation tips and tricks for students
Tips on Power point presentations for students:
https://youtu.be/OyoeGSFmI4E (technical)
https://youtu.be/X50StnWVh9I (design)

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Tips on oral presentation (this is a kid-created, kid-friendly series)
part 1: https://youtu.be/8IbheB2-ixM
Part 2: https://www.youtube.com/watch?v=PX_DAFXQxpc