



If I Had a Hammer-2



CAREERPROGRAMS
SCHOOL DISTRICT NO. 38 (RICHMOND)

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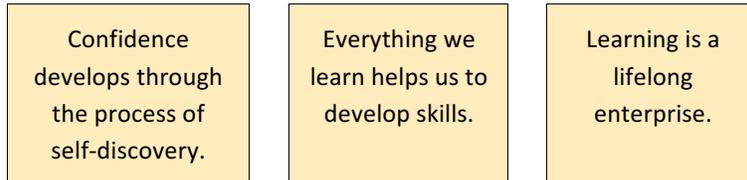
IF I HAD A HAMMER II: CAREER EDUCATION/ ADST LESSON IDEAS FOR THE NEW CURRICULUM

This activity is designed as a 'hands-on' experience for students, and has various ways in which it can assist with meeting curricular outcomes. Below are some of those ways:

Career Education Curriculum:

K-3

Big Ideas



Curricular Competencies

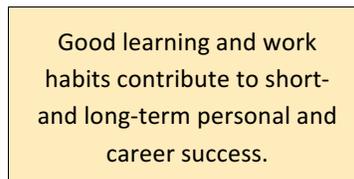
- Demonstrate **effective work habits** and organizational skills appropriate to their level of development
- Recognize the basic skills required in a variety of jobs in the community

Content

- **risk taking** and its role in self-exploration

4-5

Big Ideas



Curricular Competencies

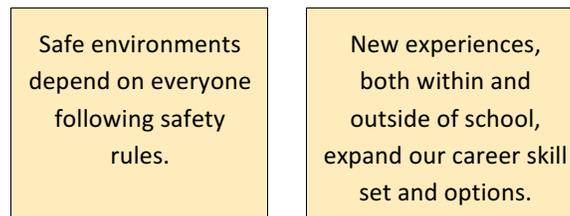
- Use innovative thinking when solving problems
- Make connections between effective work habits and success

Content

- problem-solving and decision-making strategies

6-7

Big Ideas



Curricular Competencies

- Use **entrepreneurial** and **innovative** thinking to solve problems
- Demonstrate leadership skills through collaborative activities in the school and community
- Demonstrate safety skills in an experiential learning environment

Content

- self-assessment
- problem-solving and decision-making strategies

Applied Design , Skills, and Technologies (ADST)

K-3

Big Ideas

Designs grow out of natural curiosity.

Technologies are tools that extend human capabilities.

Curricular Competencies

Applied Design

Ideating

- Identify needs and opportunities for designing, through exploration

Making

- Choose tools and materials
- Make a product using known procedures or through modelling of others
- Use trial and error to make changes, solve problems, or incorporate new ideas from self or others

Sharing

- Decide on how and with whom to share their product

Applied Skills

- Use materials, tools, and technologies in a safe manner in both physical and digital environments
- Applied Technologies
- Explore the use of simple, available tools and technologies to extend their capabilities

Content

Students are expected to use the learning standards for Curricular Competencies from Applied Design, Skills, and Technologies K–3 in combination with grade-level content from other areas of learning in cross-curricular activities to develop foundational mindsets and skills in design thinking and making.

4-5

Big Ideas

Skills are developed through practice, effort, and action.

The choice of technology and tools depends on the task.

Curricular Competencies

Defining

- Choose a design opportunity
- Identify key features or user requirements
- Identify the main objective for the design and any constraints

Ideating

- Screen ideas against the objective and constraints
- Choose an idea to pursue

Prototyping

- Outline a general plan, identifying tools and materials

Testing

- Gather peer feedback and inspiration

Sharing

- Decide on how and with whom to share their product
- Demonstrate their product and describe their process
- Determine whether their product meets the objective and contributes to the individual, family, community, and/or environment
- Identify new design issues

Applied Skills

- Use materials, tools, and technologies in a safe manner, and with an awareness of the safety of others, in both physical and digital environments
- Identify the skills required for a task and develop those skills as needed

Applied Technologies

- Use familiar tools and technologies to extend their capabilities when completing a task
- Choose appropriate technologies to use for specific tasks

Demonstrate a willingness to learn new technologies as needed

Content

Students are expected to use the learning standards for Curricular Competencies from Applied Design, Skills, and Technologies 4–5 in combination with grade-level content from other areas of learning in cross-curricular activities to develop foundational mindsets and skills in design thinking and making.

6-7

Big Ideas

Complex tasks require the acquisition of additional skills.

Complex tasks may require multiple tools and technologies.

Curricular Competencies

Ideating

- Generate potential ideas and add to others' ideas
- Screen ideas against criteria and constraints
- Choose an idea to pursue

Testing

- Gather peer and/or user and/or expert feedback and inspiration

Making

- Identify and use appropriate tools, technologies, and materials for production
- Make a plan for production that includes key stages, and carry it out, making changes as needed
- Use materials in ways that minimize waste

Sharing

- Decide on how and with whom to share their product
- Demonstrate their product and describe their process, using appropriate terminology and providing reasons for their selected solution and modifications
- Identify new design issues

Applied Skills

- Demonstrate an awareness of precautionary and emergency safety procedures in both physical and digital environments
- Identify and evaluate the skills and skill levels needed, individually or as a group, in relation to a specific task, and develop them as needed

Content

Students will experience a minimum of three modules of Applied Design, Skills, and Technologies 6–7 in each of Grades 6 and 7. Schools may choose from among the modules listed below or develop new modules that use the Curricular Competencies of Applied Design, Skills, and Technologies 6–7 with locally developed content. Locally developed modules can be offered in addition to, or instead of, the modules in the provincial curriculum.

IF I HAD A HAMMER II: CAREER EDUCATION/ ADST LESSON IDEAS FOR THE NEW CURRICULUM

Example 1 – Career Education 6/7

1. Learning Objectives *What learning goals do you want to achieve in the class?*

6-7

Big Ideas

Safe environments depend on everyone following safety rules.

New experiences, both within and outside of school, expand our career skill set and options.

2. Bridge-In *The 'hook' in your lesson plan to interest the learner*

Read “Officer Buckle & Gloria” – by Peggy Rathmann

This might be a quick hook to introduce your class to the idea of safety. It is good for younger audiences, but some gr.6-7 students can find it to be a simple, fun connection. If you don't have the book, you can use one of the following links, in which, the story is shared online.

<https://www.youtube.com/watch?v=pmViPSWwbPY>- story read aloud (8:10)

<https://www.youtube.com/watch?v=Ox7124EkHil> - story read aloud (7:55)

<https://www.youtube.com/watch?v=Xm889jEh4H4> - animated story (3:30)

3. Teaching Content *The curriculum you will deliver and explore throughout the lesson*

Safe environments depend on everyone following safety rules.

New experiences, both within and outside of school, expand our career skill set and options.

Curricular Competencies

- Use **entrepreneurial** and **innovative** thinking to solve problems
- Demonstrate leadership skills through collaborative activities in the school and community
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Content

- self-assessment
- problem-solving and decision-making strategies

4. **Learning Activities** *Integrate strategies to engage learners in active learning*

- a. After reading or watching/listening to the 'Officer Buckle & Gloria', discuss the plan to design and build some things using simple materials and hand tools. There are two ideas the students will be exploring in this lesson; 1. The importance of safe conduct in our work/learning environment. 2. The creative engagement in a 'new' experience in school, using skills which could be used for a variety of career options.
- b. Discuss the project assignment to design and assemble something using wood and tools. In this case, the students will build a frame for a photo or picture of their choice – perhaps, the scene from a novel, a significant event from a field trip, the solution to a math problem they solved. Before beginning the planning of the project identify the various tools that will be made available for the project. Have the students brainstorm possible safety issues that should be addressed prior to commencing the design and building of the project.

WorksafeBC has an interesting resource to show students about the rights and responsibilities of new and/or young workers:

<http://worksafebcmedia.com/rights/course/course1386.html>

<https://www.worksafebc.com/en/health-safety/create-manage/managing-risk/assessing-risks>

Workshop safety for kids - <https://www.thisoldhouse.com/ideas/workshop-safety-kids>

Safe use of a hammer - <http://www.wikihow.com/Use-a-Hammer-Safely>

5. **Assessment** *Either informal or formal assessment- Are the learning objectives achieved in the class?*

6. **Relate to Summative Evaluation** *Feedback from students and peers on the lesson plan*

IF I HAD A HAMMER II:

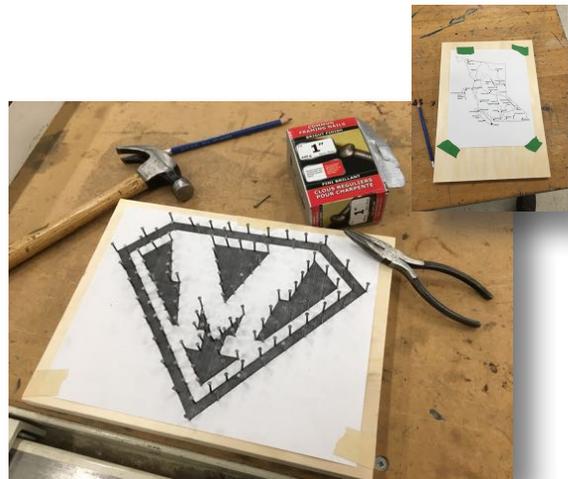
Wood, Nails, and String



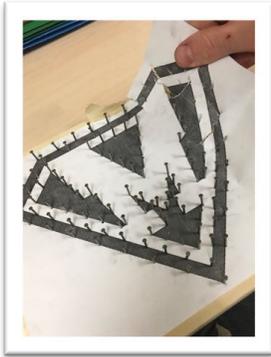
Materials

- we used 1"x 10"x 12" knotty pine boards, but you can use any softwood or 3/4" plywood cut to 12"x12"
- hammer
- 1" common framing nails as they have a head on them that is not too big. Finishing nails can also work, but kids might find it trickier to keep the string on them
- masking tape (to tape the template to the board)
- needle nose pliers (can be helpful to some for holding the nails - particularly in tight places on the board)

- if you wish to stain the board (a great idea) do so at the very beginning
- students can choose a design or come up with their own – nothing too detailed as it will require nails to be too close together
- tape the design template to the board. Keep the template an inch or so in from the edge of the board, so the nails have some space from the outside
- mark nail placements starting with the turning points (corners, etc.)

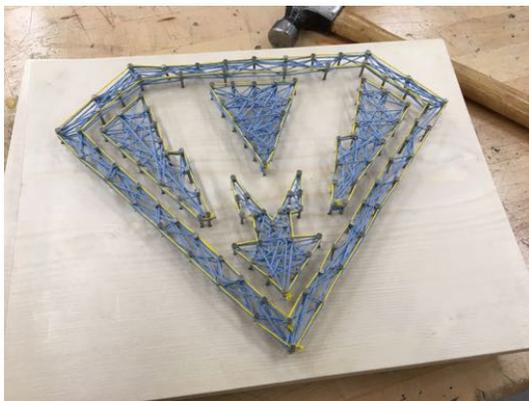
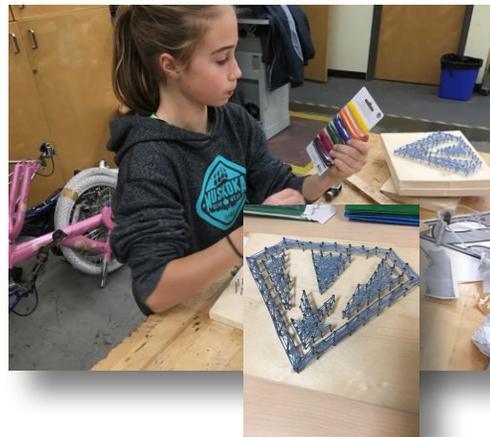


- put on safety glasses
- begin to hammer nails in to board/template where you have marked
- a small piece of 5/8" wood (the size of a finger) can be used to indicate the depth of the nails. Set the nail up against the spacer and hammer it in until it is at the height of the wood
- needle nose pliers can be used if students have difficulty holding the nails or when more nails are added and spacing gets tight



- once all the nails are in place be sure to remove the paper template prior to adding the string
- the board can look like a confusing bunch of nails once the paper is removed, so it's good to keep a copy of the original template on hand or, even better, take a photo of the board with the template and nails all added

- choose your thread. We used coloured crochet thread for some, twine for others.
- tie the thread to one nail in a discrete location on the board
- begin weaving the string around across the board from nail to nail in a random pattern (although, some prefer a more routine pattern) to fill in spaces that are to be filled on your design
- continue until you are satisfied the design is sufficiently filled then tie the string off and trim away the excess



Extensions

- students can create their own templates (rather than using a pre-designed one)
- additional colours can be added or other items can be attached to the board in order to complete the students' desired designs

Students can use these to:

- display a significant scene from a novel study
- a word that represents their learning or feelings from an activity or something meaningful to them
- a map of a country or region they are studying