

## Innovative Feature: Woodworking Grades 4-8

### 4th Grade

The 4<sup>th</sup> grade curriculum focuses on balance as both hands learn to work together in harmony. The amount of strength exerted by one hand must be met by the action of the opposite hand in order for students to complete their projects. These activities help balance the work they are doing with their head, wakes up their sense of touch, and teaches them an appreciation for the amazing qualities, capabilities and the power they hold in their hands.

#### Goal 1 – 4th Grade

Ability to stay on task

##### Measurable Outcome #1

Egg

- Sawing a rectangle piece of wood
- Using rasp to shape it into an oval shape
- Smoothing the oval surface by using sand paper
- The final step is waxing the egg

##### Measurable Outcome #2

Stepping Stool – making something personal & functional while preparing for more complicated projects in 5<sup>th</sup> grade

- Cut 5 pieces of wood in 2 different sizes
- Assemble them together with screws
- Sand them with sand paper

##### Measurable Outcome #3

Hedgehog

- Cut a rectangular shape
- Use a rasp to smooth 3 sides and leave one side flat
- Use a small hand-held chisel to make the spikes
- Use heated pen to make eyes, nose and mouth

#### Goal 2 - 4th Grade

Ability to picture “the project” in their mind and carry through with their hands

##### Measurable Outcome #1

Egg

- Sawing a rectangle piece of wood
- Using rasp to shape it into an oval shape
- Smoothing the oval surface by using sand paper
- The final step is waxing the egg

##### Measurable Outcome #2

Stepping Stool – making something personal & functional while preparing for more complicated projects in 5<sup>th</sup> grade

- Cut 5 pieces of wood in 2 different sizes
- Assemble them together with screws
- Sand them with sand paper

##### Measurable Outcome #3

### Hedgehog

- Cut a rectangular shape
- Use a rasp to smooth 3 sides and leave one side flat
- Use a small hand-held chisel to make the spikes
- Use heated pen to make eyes, nose and mouth

## Goal 3 - 4th Grade

Ability to use/develop their fine and gross motor skills

### Measurable Outcome #1

#### Egg

- Sawing a rectangle piece of wood
- Using rasp to shape it into an oval shape
- Smoothing the oval surface by using sand paper
- The final step is waxing the egg

### Measurable Outcome #2

Stepping Stool – making something personal & functional while preparing for more complicated projects in 5<sup>th</sup> grade

- Cut 5 pieces of wood in 2 different sizes
- Assemble them together with screws
- Sand them with sand paper

### Measurable Outcome #3

#### Hedgehog

- Cut a rectangular shape
- Use a rasp to smooth 3 sides and leave one side flat
- Use a small hand-held chisel to make the spikes
- Use heated pen to make eyes, nose and mouth

## Goal 4 – 4th Grade

Ability to follow directions and work safely

### Measurable Outcome #1

#### Egg

- Sawing a rectangle piece of wood
- Using rasp to shape it into an oval shape
- Smoothing the oval surface by using sand paper
- The final step is waxing the egg

### Measurable Outcome #2

Stepping Stool – making something personal & functional while preparing for more complicated projects in 5<sup>th</sup> grade

- Cut 5 pieces of wood in 2 different sizes
- Assemble them together with screws
- Sand them with sand paper

### Measurable Outcome #3 (Optional)

#### Hedgehog

- Cut a rectangular shape
- Use a rasp to smooth 3 sides and leave one side flat

- Use a small hand-held chisel to make the spikes
- Use heated pen to make eyes, nose and mouth

### 5th Grade

The 5th grade curriculum is about to see the world from different perspectives and discovering new ways to integrate this experience. This year, students will continue to deepen their existing skills and to create more precise and fun work.

#### Goal 1 – 5th Grade

Ability to stay on task

##### Measurable Outcome #1

Toolbox

- Cut 5 pieces of wood in 3 different sizes
- Cut 1 ½ inches long pegs (14 pieces)
- Cut a handle bar 2 inches long than the length of the toolbox
- Rasp 2 half inch circular round shape on the side pieces
- Drill holes (to match the holes precisely on different pieces of wood)
- Put pegs into the drilled holes and glue pieces together
- Sand the toolbox
- Put the handle on

##### Measurable Outcome #2

2-D animal or car with wheels - either using pattern animal or from their own drawing

- Cut out the shape of the object by using a different saw (coping saw)
- Sanding
- Attach wheels

#### Goal 2 – 5th Grade

Ability to work accurately and independently

##### Measurable Outcome #1

Toolbox

- Cut 5 pieces of wood in 3 different sizes
- Cut 1 ½ inches long pegs (14 pieces)
- Cut a handle bar 2 inches long than the length of the toolbox
- Rasp 2 half inch circular round shape on the side pieces
- Drill holes (to match the holes precisely on different pieces of wood)
- Put pegs into the drilled holes and glue pieces together
- Sand the toolbox
- Put the handle on

##### Measurable Outcome #2

2-D animal or car with wheels - either using pattern animal or from their own drawing

- Cut out the shape of the object by using a different saw (coping saw)
- Sanding
- Attach wheels

#### Goal 3 – 5th Grade

Ability to work more precisely

**Measurable Outcome #1**

Toolbox

- Cut 5 pieces of wood in 3 different sizes
- Cut 1 ½ inches long pegs (14 pieces)
- Cut a handle bar 2 inches long than the length of the toolbox
- Rasp 2 half inch circular round shape on the side pieces
- Drill holes (to match the holes precisely on different pieces of wood)
- Put pegs into the drilled holes and glue pieces together
- Sand the toolbox
- Put the handle on

**Measurable Outcome #2**

2-D animal or car with wheels - either using pattern animal or from their own drawing

- Cut out the shape of the object by using a different saw (coping saw)
- Sanding
- Attach wheels

**Goal 4 – 5th Grade**

Ability to process more instructions (more steps in a instructional setting)

**Measurable Outcome #1**

Toolbox

- Cut 5 pieces of wood in 3 different sizes
- Cut 1 ½ inches long pegs (14 pieces)
- Cut a handle bar 2 inches long than the length of the toolbox
- Rasp 2 half inch circular round shape on the side pieces
- Drill holes (to match the holes precisely on different pieces of wood)
- Put pegs into the drilled holes and glue pieces together
- Sand the toolbox
- Put the handle on

**Measurable Outcome #2**

2-D Animal or Car with wheels - either using pattern animal or from their own drawing

- Cut out the shape of the object by using a different saw (coping saw)
- Sanding
- Attach wheels

**6th Grade**

Students will channel their creative ideas through their hands and woodworking tools. They will use his/her creativity to make practical wooden items for daily use. This work requires more developed and patient use of their fine motor skills and more hand tools. In this year, they will learn to balance beauty and function.

**Goal 1 – 6th Grade**

Ability to stay on task for a long time, sustain interest in work (in each step)

**Measurable Outcome #1**

Serving Spoon

- Cut a 14 inches long piece of wood
- Use rasp to round 2 corners

- Draw the spoon shape and their personal style handle
- Cut out 2 sides from the handle area by sawing
- Use chisel and mallet to make the concave shape on the spoon head
- Turn the wood into spoon shape by rasp
- Sand the spoon by using sandpaper #80, #120 and #220
- Wash the spoon

**Measurable Outcome #2 (Optional)**

Serving Fork or Spork

The steps are similar to making the serving spoon. Students can work independently and also practice and deepen their existing skills

**Measurable Outcome #3 (Optional)**

Eating Spoon

The steps are similar to making the serving spoon. There are 2 different tools used for this project: one for the concave shaped spoon head and the carving knife for shaping the spoon handle and the entire spoon

**Goal 2 – 6th Grade**

Ability to self-correct work

**Measurable Outcome #1**

Serving Spoon

- Cut a 14 inches long piece of wood
- Use rasp to round 2 corners
- Draw the spoon shape and their personal style handle
- Cut out 2 sides from the handle area by sawing
- Use chisel and mallet to make the concave shape on the spoon head
- Turn the wood into spoon shape by rasp
- Sand the spoon by using sandpaper #80, #120 and #220
- Wash the spoon

**Measurable Outcome #2 (Optional)**

Serving Fork or Spork

The steps are similar to making the serving spoon. Students can work independently and also practice and deepen their existing skills

**Measurable Outcome #3 (Optional)**

Eating Spoon

The steps are similar to making the serving spoon. There are 2 different tools used for this project: one for the concave shaped spoon head and the carving knife for shaping the spoon handle and the entire spoon

**Goal 3 – 6th Grade**

Ability to work independently

**Measurable Outcome #1**

Serving Spoon

- Cut a 14 inches long piece of wood
- Use rasp to round 2 corners
- Draw the spoon shape and their personal style handle
- Cut out 2 sides from the handle area by sawing
- Use chisel and mallet to make the concave shape on the spoon head

- Turn the wood into spoon shape by rasp
- Sand the spoon by using sandpaper #80, #120 and #220
- Wash the spoon

**Measurable Outcome #2 (Optional)**

Serving Fork or Spork

The steps are similar to making the serving spoon. Students can work independently and also practice and deepen their existing skills

**Measurable Outcome #3 (Optional)**

Eating Spoon

The steps are similar to making the serving spoon. There are 2 different tools used for this project: one for the concave shaped spoon head and the carving knife for shaping the spoon handle and the entire spoon

**Goal 4 – 6th Grade**

Ability to express their creativity

**Measurable Outcome #1**

Serving Spoon

- Cut a 14 inches long piece of wood
- Use rasp to round 2 corners
- Draw the spoon shape and their personal style handle
- Cut out 2 sides from the handle area by sawing
- Use chisel and mallet to make the concave shape on the spoon head
- Turn the wood into spoon shape by rasp
- Sand the spoon by using sandpaper #80, #120 and #220
- Wash the spoon

**Measurable Outcome #2 (Optional)**

Serving Fork or Spork

The steps are similar to making the serving spoon. Students can work independently and also practice and deepen their existing skills

**Measurable Outcome #3 (Optional)**

Eating Spoon

The steps are similar to making the serving spoon. There are 2 different tools used for this project: one for the concave shaped spoon head and the carving knife for shaping the spoon handle and the entire spoon

**7th Grade**

As students approach maturity during this transitional year, they tend to turn more inward. These projects will help them honor the inner space but also leave space open at the top. Students will meet the strong natural resistance from the wood and focus on the balance of the rim; which is the space that unites the inner space to the outer form.

Students will practice, polish and deepen their existing skills ; and also, they can focus more on their creativity and artistic side. They will learn to use some new tools in order to keep student's interest.

**Goal 1 – 7th Grade**

Ability to be self-motivated

**Measurable Outcome #1**

**Bowl**

- Cut a square shape form a block of woodworking
- Using saw to change the square shape into a round, oval shape or the other shape they like
- Using chisel and mallet to hollow out the inside
- Rasp the outside of the bowl
- Sand the entire bow using sand paper
- Wax/oil it

**Measurable Outcome #2 (Optional)**

Handheld Mirror or Box

The handheld mirror project's steps are similar to the serving spoon project.

The box project's steps are similar to the toolbox project.

**Goal 2 – 7th Grade**

Ability to sustain interest in each step

**Measurable Outcome #1**

**Bowl**

- Cut a square shape form a block of woodworking
- Using saw to change the square shape into a round, oval shape or the other shape they like
- Using chisel and mallet to hollow out the inside
- Rasp the outside of the bowl
- Sand the entire bow using sand paper
- Wax/oil it

**Measurable Outcome #2 (Optional)**

Handheld Mirror or Box

The handheld mirror project's steps are similar to the serving spoon project.

The box project's steps are similar to the toolbox project.

**Goal 3 – 7th Grade**

Ability to express their creativity

**Measurable Outcome #1**

**Bowl**

- Cut a square shape form a block of woodworking
- Using saw to change the square shape into a round, oval shape or the other shape they like
- Using chisel and mallet to hollow out the inside
- Rasp the outside of the bowl
- Sand the entire bow using sand paper
- Wax/oil it

**Measurable Outcome #2 (Optional)**

Handheld Mirror or Box

The handheld mirror project's steps are similar to the serving spoon project.

The box project's steps are similar to the toolbox project.

**Goal 4 – 7th Grade**

Ability to work independently

**Measurable Outcome #1**

**Bowl**

- Cut a square shape form a block of woodworking

- Using saw to change the square shape into a round, oval shape or the other shape they like
- Using chisel and mallet to hollow out the inside
- Rasp the outside of the bowl
- Sand the entire bowl using sand paper
- Wax/oil it

**Measurable Outcome #2 (Optional)**

Handheld Mirror or Box

The handheld mirror project's steps are similar to the serving spoon project.

The box project's steps are similar to the toolbox project

**8th Grade**

As students start to understand the concept of cause of effect, they become excited to learn how mechanical things work. So this year, the students will be introduced to the use of mechanical tools, which ties in to their study of the Industrial Revolution.

**Goal 1 – 8th Grade**

Ability to recall and draw a “form drawing” from 7th grade

**Measurable Outcome #1**

3-Legged Stool

- Cut a square shape from a block of wood
- Cut 3 legs, no longer than 17 inches and no shorter than 12 inches
- Turn the square shape into round, hexagon or any shape if desire by sawing
- Smooth the edges/corners by rasping
- Make 3 holes on the top by drilling and rasping
- Cutting, rasping the legs to fit in to the holes
- Sand the entire stool by sing sand paper or electric sander
- Use heated pen to do the design
- Oil the 3-legged stool

**Measurable Outcome #1**

Group Design Project for the School

As a group, students design and create a project ,which they will gift to the school upon their graduation. They have to work together to mutually agree on an idea, design, translate to paper, plan each step of the way and follow-through to create the project.

**Goal 2 – 8th Grade**

Ability to be self- motivated

**Measurable Outcome #1**

3-Legged Stool

- Cut a square shape from a block of wood
- Cut 3 legs, no longer than 17 inches and no shorter than 12 inches
- Turn the square shape into round, hexagon or any shape if desire by sawing
- Smooth the edges/corners by rasping
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- Oil the 3-legged stool



**Measurable Outcome #1**

Group Design Project for the School

As a group, students design and create a project, which they will gift to the school upon their graduation. They have to work together to mutually agree on an idea, design, translate to paper, plan each step of the way and follow-through to create the project.

**Goal 3 – 8th Grade**

Ability to work independently

**Measurable Outcome #1**

3-Legged Stool

- Cut a square shape from a block of wood
- Cut 3 legs, no longer than 17 inches and no shorter than 12 inches
- Turn the square shape into round, hexagon or any shape if desire by sawing
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**Measurable Outcome #1**

Group Design Project for the School

As a group, students design and create a project, which they will gift to the school upon their graduation. They have to work together to mutually agree on an idea, design, translate to paper, plan each step of the way and follow-through to create the project.

**Goal 4 – 8th Grade**

Ability to work in a group

**Measurable Outcome #1**

3-Legged Stool

- Cut a square shape from a block of wood
- Cut 3 legs, no longer than 17 inches and no shorter than 12 inches
- Turn the square shape into round, hexagon or any shape if desire by sawing
- Smooth the edges/corners by rasping
- Make 3 holes on the top by drilling and rasping
- Cutting, rasping the legs to fit in to the holes
- Sand the entire stool by sing sand paper or electric sander
- Use heated pen to do the design
- Oil the 3-legged stool

**Measurable Outcome #1**

Group Design Project for the School

As a group, students design and create a project, which they will gift to the school upon their graduation. They have to work together to mutually agree on an idea, design, translate to paper, plan each step of the way and follow-through to create the project.