

Name: _____

Appendix 1: Tools for the Trade

Part 1

Directions:

Read the article “Tools for the Trade” in the spring/summer 2025 issue of *FFA New Horizons* and answer the questions below.

1. What does Levi Richardson credit his success to?
2. What FFA chapter was Levi a part of?
3. What program did Levi enroll in at East Central Community College?
4. What companies has Levi worked for in the precision machining industry?
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 -
 -
5. What does Levi do in his current role at C.H. Guenther & Son?
6. What did Levi receive an associate degree in?



“I attribute a lot of my success to being in FFA. I would have been way too nervous and shy to go on job interviews, and now I’ve done several to get to where I am. FFA gave me the confidence to get out there.” —Levi Richardson

Name: _____

Part 2

Directions:

Many products we use in our everyday lives are made through precision machining. Research products you use that are made through precision machining and fill in the table below.

Some of the following sites may be helpful in your research:

- Industrial Automation Co.: <https://industrialautomationco.com/blogs/news/10-products-only-made-possible-thanks-to-cnc-machines>
- Tormach: <https://tormach.com/articles/5-things-you-didnt-know-were-machined>
- Pioneer Service Inc.: <https://pioneerserviceinc.com/blog/most-common-types-of-precision-cnc-machining/>

Product	Sketch of Product	Precision Machining Process (CNC, milling, laser, 3D printing, etc.)
Example: Cell Phone		CNC

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Part 3

Directions:

You will now go on a scavenger hunt of your agriculture department! Using the websites and your research from Part 2, identify 10 products you use in the classroom, shop and lab spaces that are made through precision machining. Sketch a picture of each item and label it in the space below. When done, answer the discussion questions.

Discussion Questions:

1. What impact does precision machining have on your everyday life?
2. How would your life be different if precision machining were not possible?
3. How do you think precision machining will affect products in the future?

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Part 4

Directions:

There are endless careers available in machining in almost every field imaginable. Learn about a career in machining by going to O*NET OnLine at <https://www.onetonline.org/>. Once there, type machinist into the occupation keyword search and answer the questions below.

1. What is a machinist?
2. What are three tasks machinists do?
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 -
 -
3. What are three technology skills required to be a machinist?
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 -
 -
4. Under training and credentials, search for your state of interest. What certifications are available in the state?
5. Under worker requirements, what are three general skills machinists need?
 -
 -
 -
6. Under worker characteristics, what are three abilities machinists need to have?
 -
 -
 -
7. What is the annual wage for a machinist in your area or state of interest?

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8. What are three current job openings in your area or state of interest?

-
-
-

9. What are two related occupations that you would be interested in doing?

-
-

10. What did you learn through this activity that surprised you about machining?

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Aligned to the following standards: AG5; CS.02 CS.05; FFA.PL-A; FFA.PL-C; FFA.PL-D; FFA.PL-E; FFA.PL-F; FFA.PG-G.; FFA.PG-I; FFA.CS-M; FFA.CS-N; FFA.CS-O; FFA.CS-P; CCSS.ELA.RI.9-10.2; CCSS.ELA.RI.9-10.4; CCSS.W.9-10.2; CCSS.W.9-10.4; CCSS.ELA.W.9-10.8; CCSS.SL.9-10.2; CCSS.SL.9-10.4; CRP.02; CRP.04; CRP.08; CRP.09

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1. What does Levi Richardson credit his success to?

His involvement in FFA

2. What FFA chapter was Levi a part of?

Newton County FFA

3. What program did Levi enroll in at East Central Community College?

Precision Machining

4. What companies has Levi worked for in the precision machining industry?

- Addy Metal Fabrication
- Mid South Baking Company
- C.H. Guenther & Son

5. What does Levi do in his current role at C.H. Guenther & Son?

Electrical troubleshooting, repairs, installing equipment and mechanical troubleshooting

6. What did Levi receive an associate degree in?

Mechanical engineering



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- Pioneer Service Inc.: <https://pioneerserviceinc.com/blog/most-common-types-of-precision-cnc-machining/>

Product	Sketch of Product	Precision Machining Process (CNC, milling, laser, 3D printing, etc.)
Answers will vary.	Answers will vary.	Answers will vary.
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Answers will vary.

Discussion Questions:

1. What impact does precision machining have on your everyday life?

Answers will vary.

2. How would your life be different if precision machining were not possible?

Answers will vary.

3. How do you think precision machining will affect products in the future?

Answers will vary.

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Part 4

Directions:

There are endless careers available in machining in almost every field imaginable. Learn about a career in machining by going to O*NET OnLine at <https://www.onetonline.org/>. Once there, type machinist into the occupation keyword search and answer the questions below.

1. What is a machinist?

Individuals who set up and operate a variety of machine tools to produce precision parts and instruments out of metal
Includes precision instrument makers who fabricate, modify or repair mechanical instruments
May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout and machining procedures

2. What are three tasks machinists do?

- Answers will vary.
- Answers will vary.
- Answers will vary.

3. What are three technology skills required to be a machinist?

- Answers will vary.
- Answers will vary.
- Answers will vary.

4. Under training and credentials, search for your state of interest. What certifications are available in the state?

Answers will vary.

5. What are three general skills machinists need?

- Answers will vary.
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6. What are three abilities machinists need to have?

- Answers will vary.
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7. What is the annual wage for a machinist in your area or state of interest?

Answers will vary.

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8. What are three current job openings in your area or state of interest?

- Answers will vary.
- Answers will vary.
- Answers will vary.

9. What are two related occupations that you would be interested in doing?

- Answers will vary.
- Answers will vary.

10. What did you learn through this activity that surprised you about machining?

Answers will vary.