

Measurement and Conversion Summative Assessment

Answer Key



PART A

Directions: There are two different systems of measurement, the U.S. customary system and the metric system. Read each unit of measurement. Write U.S. if it is from the U.S. customary system and M if it is from the metric system.

U.S.	inch	M	centimeter	U.S.	pound
M	millimeter	U.S.	mile	U.S.	yard
M	meter	M	gram	U.S.	ounce

PART B

Directions: Answer these questions by converting measurements. Show your work.

Jack is measuring the length of the classroom with a ruler. He finds that it is 27 feet long. How many yards long is his classroom? (**Hint:** There are 3 feet in a yard.)

$$27 \div 3 = 9$$

The classroom is **9** yards long.

A dog weighs 8 pounds. How many ounces does the dog weigh? (**Hint:** There are 16 ounces in a pound.)

$$8 \times 16 = 128 \text{ ounces}$$

The dog weighs **128** ounces.

A pencil is 10 centimeters long. How many millimeters long is it? (**Hint:** There are 10 millimeters in a centimeter.)

$$10 \times 10 = 100$$

The pencil is **100** millimeters long.

Name

Date

Fidget Spinner Project Rubric

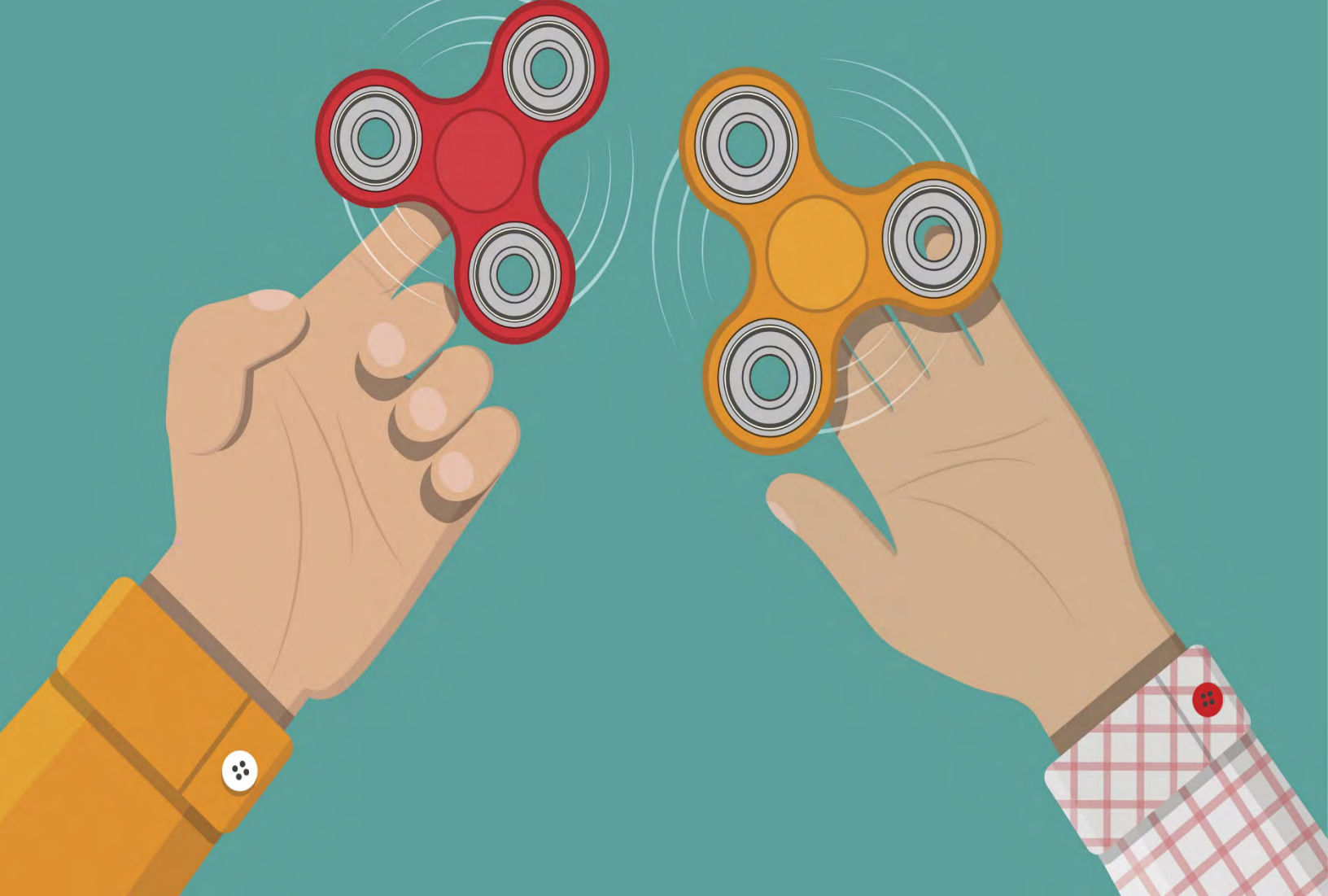
	4	3	2	1
Fidget Spinner Design	The students used internet and market research to design their fidget spinner on the “Market Research” printable. They completed all three parts of the “Building a Prototype” printable.	The students used internet and market research to design their fidget spinner on the “Market Research” printable. They completed two of the three parts of the “Building a Prototype” printable.	The students used either internet or market research to design their fidget spinner on the “Market Research” printable. They completed one of the parts on the “Building a Prototype” printable.	The students didn’t use internet or market research to design their fidget spinner. They didn’t complete any of the parts on the “Building a Prototype” printable.
Mathematical Computations	All of the students’ mathematical computations are correct on the “International Marketing” and “Measurement” printables.	There is one incorrect mathematical computation.	There are two incorrect mathematical computations.	There are three or more incorrect mathematical computations.
Advertisement	The advertisement includes the product and company names, the product description, the price, a photo or illustration, product information, and reviews.	The advertisement is missing one or two important pieces of information.	The advertisement is missing three or four important pieces of information.	The advertisement is missing five or more important pieces of information.
Reflection	All five answers in the “Project Reflection” portion of the project are complete and accurate.	Four of the answers in the “Project Reflection” portion of the project are complete and accurate.	Two or three of the answers in the “Project Reflection” portion of the project are complete and accurate.	One of the answers in the “Project Reflection” portion of the project is complete and accurate.

Teacher’s comments:

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Exploring Measurement

Student Pack

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Zolli Candy Webquest



Directions: Explore the Zolli Candy website. Answer these questions as you learn more about Alina’s entrepreneurial journey.

1. How are Zollipops different from regular lollipops?

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2. How did Zollipops get their name?

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3. What is the Million Smiles Initiative?

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4. What other products has Alina developed in addition to Zollipops?

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5. What type of Zolli Candy would you like to try the most? Why?

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Becoming an Entrepreneur



Directions: Watch the video about Alina Morse and Zollipops. Use the information to answer the questions.

Where did Alina get the idea for Zollipops?

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What steps did Alina take to create Zollipops?

1.

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2.

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What advice does Alina give other kids?

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What do you think an entrepreneur is?

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Fidget Spinner Project Guidelines



Directions: You and your team of entrepreneurs will design a new fidget spinner. Follow these steps to take your creation from just an idea to a product that can be sold.

- Step #1:** Introduction - Meet with your group and agree on a company name.
- Step #2:** Market Research - Interview two potential customers to see what special features they would like a new fidget spinner to have.
- Step #3:** Make a Prototype - Use LEGO® pieces to create a model of your fidget spinner.
- Step #4:** Calculate Your Time and Materials - Calculate how long it takes you to build a spinner and how much it will cost to make it.
- Step #5:** Marketing - Determine who will be the customers for your fidget spinner by thinking about where they will live and what currency they will use to purchase it.
- Step #6:** Gather Data - Collect information about the size of your fidget spinner and how long it spins.
- Step #7:** Advertise - Create an advertisement to make people want to buy your fidget spinner.
- Step #8:** Testing - Have your potential customers test your fidget spinner and review it.



Market Research



Introduction:

Congratulations! You have started your own company, and you are ready to design your first product: a fidget spinner! You will use this page to help you start the process. You will conduct market research, look at example fidget spinners online, and sketch your own design. But first, your company will need a name...

Company Name:

Market Research

Before manufacturing and selling a new product, it is wise for an entrepreneur (someone who starts a business) to research what types of products his or her customers would like to purchase and what special features the products should have. Ask two potential customers some questions to help you design a spinner that everyone will want to purchase. Use the chart below to record the information you collect during your interviews. Use the blank boxes to add more questions and the interviewee's (person you are interviewing) response.

Interviewee #1:

What features are you interested in seeing in a fidget spinner?

How much money would you be willing to pay for a fidget spinner?

Interviewee #2:

What features are you interested in seeing in a fidget spinner?

How much money would you be willing to pay for a fidget spinner?

Online Research

Research LEGO® fidget spinner ideas online, and print or save a few of your favorites.

Prototype Sketch

In the box below, draw a picture of the fidget spinner you want to build. Remember to include the things you learned through your online and market research.

Name Date

Milestone #1 Inquiry Question



Directions: Use what you learned in this milestone to answer the question.

Why is market research an important step in the process of inventing a new product?

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