



# Simple STEAM

## {Maker Space Task Cards}

# Cotton Swab

20 engineering, art, and design task  
cards perfect for your Maker Space!

# Thank you!!

Thank you so much for downloading this resource! I hope that you and your students love it! I am so honored that you took the time out of your busy day to visit my store. I appreciate you so much! And in case no one told you this today:

☺ You are an amazing teacher ☺

Your feedback is important to me. You can reach me at [sarah@morethanaworksheet.com](mailto:sarah@morethanaworksheet.com) Or you can also reach me using the Q&A section of my TpT Store, [More Than a Worksheet](#).

PS: I would LOVE to see pics of how you use my resources in your classroom!

If you are on Instagram, feel free to tag me @morethanaworksheet. I'm also on Facebook and Twitter!

Happy Teaching!  
Sarah



**The More Than a Worksheet Promise:**  
I promise to create engaging learning experiences that first and foremost make students think. They are rigorous, standards-based, versatile, and perfect for the teacher who wants to light a spark in students. Teachers don't have extra time to re-invent the wheel with each lesson, but you shouldn't have to sacrifice good teaching practices in lieu of textbooks, test prep, worksheets, and standards. Let me help you add critical thinking, creativity, and fun into your curriculum!



# Simple STEAM: Maker Space Task Cards

## {Cotton Swab Edition}

### Notes to Teacher:

Thank you for purchasing this activity! I hope you and your students love it! This makes a great starting point for teachers just beginning their S.T.E.A.M. or Maker Space journey. The tasks in this series are simple enough that students can complete them independently, and they require just a few materials that are easy to come by. Don't be fooled by the simple nature, though. These challenges are designed to make your students think critically and creatively!

#### What is included?

\*There are 20 task cards included with challenges, and I also included 4 blank ones for you and your students to use to create your own challenges. Just print and go. Laminate for durability if you choose.

\*A simple rubric

\*A student checklist

#### What materials do I need?

cotton swabs, glue, rubber bands, cotton balls, ruler

#### How should I use these task cards?

I like to design products that are versatile and can be used in various ways to fit your needs. There is no one right way to use them, and I encourage you to try using them in different ways to find what fits best with your classroom. Here are some ideas:

- a Maker Space tub
- a science center where the challenge changes weekly
- a project that students work on in lieu of morning work with a new challenge each day
- fun whole class activities for the end of the year or the days before holidays
- send home for family STEAM time and have parent or students snap a picture of the completed challenge.
- a fun class reward for Fun Friday

#### What age are they best for?

These are perfect for grades 2-4. Some challenges may seem easy, and some may seem challenging. That is ok! These are naturally differentiated.

#### What S.T.E.A.M. components are addressed?

With these tasks, students will use creative thinking skills to tackle Engineering challenges. They will also tap into Art and design and some geometry and measurement skills.

**Is there one right answer?** No! Projects such as these are open ended on purpose. There is not a single right solution but many possible solutions that meet the challenge. It may be challenging for students at first to access the creative parts of their brains to think of innovative designs, but the more engineering, creative, and critical thinking activities you do, the more students get comfortable taking risks and finding creative solutions.

**Should I show students examples first?** I encourage you to let students attempt the projects before helping or showing examples. When students look at examples, they get it in their mind and think that there is just the one way to do it.

#### How do I grade these?

This is tough for me because I want students to be creative, think critically, and be able to learn from their mistakes, all of which can happen with these task cards. Yet, as teachers, we need to justify spending the time on activities, and a big way to do that is with grades. I created a simple rubric with that in mind. It addresses the skills that I want students to work on. I would love to hear your input because I realize there is no perfect way to grade activities such as this, so this is my attempt to try.

#### I'm hooked on S.T.E.A.M. What is my next step?

Visit my TPT Store for other STEM and STEAM resources.

<https://www.teacherspayteachers.com/Store/More-Than-A-Worksheet/Category/STEM>

For more Maker Space Task Cards:

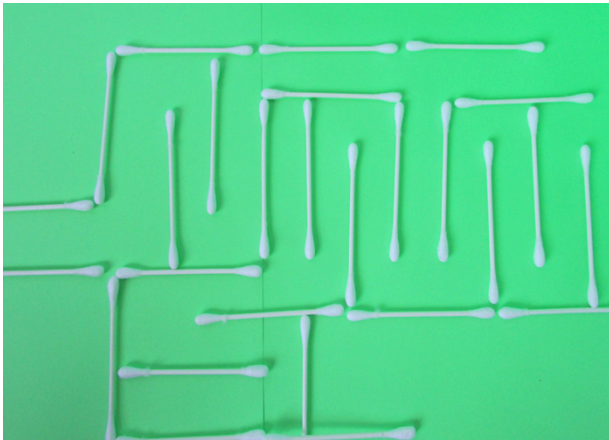
<https://www.teacherspayteachers.com/Store/More-Than-A-Worksheet/Category/-Maker-Space-Task-Cards-259058>

## Simple S.T.E.A.M.

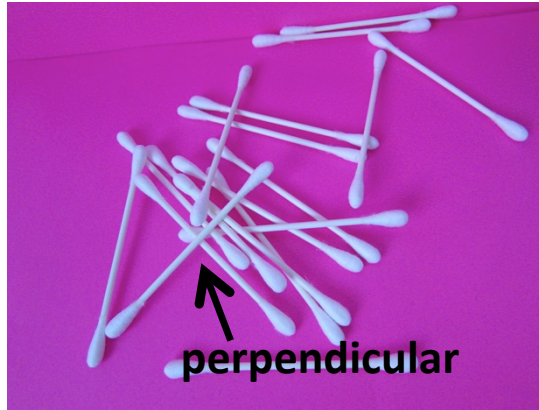
### Cotton Swab Edition Examples

I provided examples for you, the teacher, to get ideas. I encourage you to let students build before showing examples. They will amaze you with what they come up with!

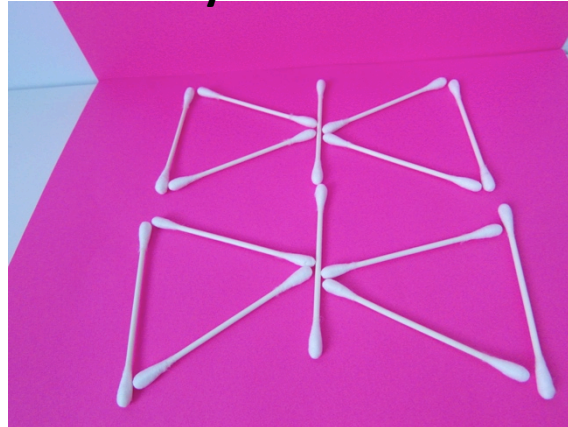
#### Task 14: Maze



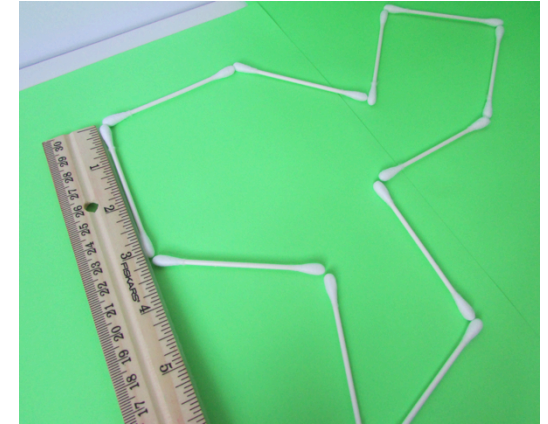
#### Task 20: Identify Lines



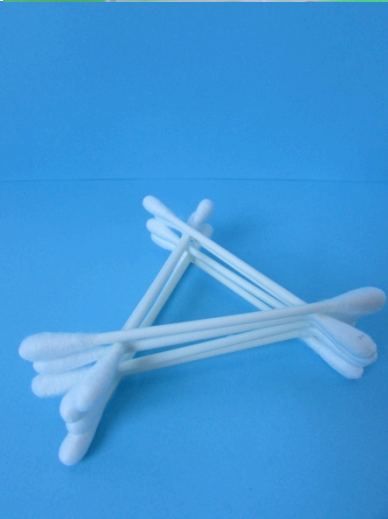
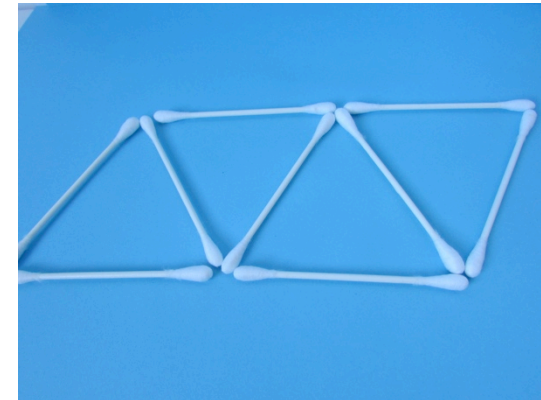
#### Task 13: Symmetrical Butterfly



#### Task 2: 2-D figure with 12 cotton swabs, measure the perimeter.



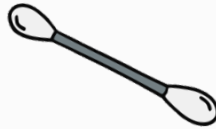
#### Task 4: Tessellating Pattern



#### Task 8: 3-D structure with triangle base



# Task 1



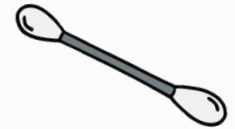
Construct a teepee structure that stands on its own.

**Materials:** cotton swabs

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# Task 2



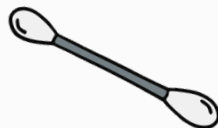
Design a closed 2-dimensional pattern using exactly 12 cotton swabs. Then, measure the perimeter.

**Materials:** 12 cotton swabs, ruler

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# Task 3



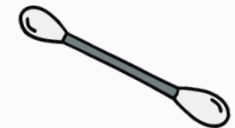
Construct a device that tosses cotton balls.

**Materials:** cotton swabs, rubber bands, cotton balls

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# Task 4



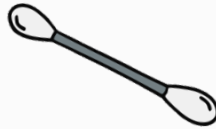
Design a 2-dimensional tessellating pattern.

**Materials:** cotton swabs

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## Task 5



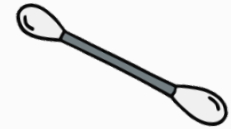
Construct a model of a pig pen.

**Materials: cotton swabs**

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## Task 6



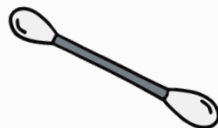
Construct a model of a piece of playground equipment.

**Materials: cotton swabs, glue**

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## Task 7



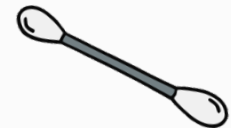
Make a 2-dimensional figure that contains at least one right, one acute, and one obtuse angle.

**Materials: cotton swabs**

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## Task 8



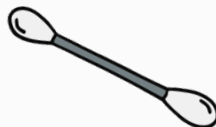
Construct a 3-dimensional structure with a triangle base.

**Materials: cotton swabs**

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## Task 9



Construct a house complete with a roof.

**Materials: cotton swabs**

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## Task 10



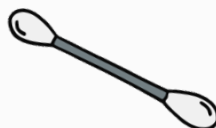
What is the tallest tower you can create using only cotton swabs and rubber bands?

**Materials: cotton swabs, rubber bands**

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## Task 11



Construct a 3-dimensional square pyramid.

**Materials: cotton swabs, glue**

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## Task 12



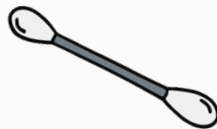
Construct a 3-dimensional structure with a pentagonal base.

**Materials: cotton swabs**

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## Task 13



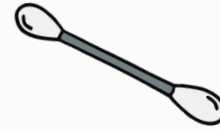
Design a 2-dimensional model of a butterfly. Your model must have a line of symmetry.

**Materials: cotton swabs**

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## Task 14



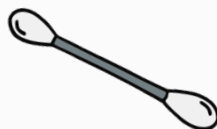
Construct a 2-dimensional maze. Your maze should have at least 2 "wrong turns."

**Materials: cotton swabs**

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## Task 15



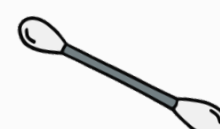
Create your initials with cotton swabs. Identify and count the acute, obtuse, and right angles.

**Materials: cotton swabs**

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## Task 16



Construct a 3-dimensional cube.

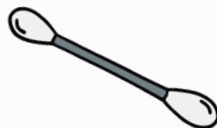
**Materials: cotton swabs, glue**

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## Task 17



Think of your favorite candy. Design a logo for it.

**Materials: cotton swabs**

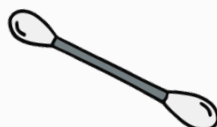
## Task 18



Design a closed 2-dimensional (flat) pattern using exactly 20 cotton swabs. Use a ruler to measure the perimeter.

**Materials: 20 cotton swabs, ruler**

## Task 19



How many different figures can you create using exactly 8 cotton swabs.

**Materials: 8 cotton swabs**

## Task 20



Hold a handful of cotton swabs in your hand. Drop them on a table. How many sets of intersecting lines are there. Are there any parallel or perpendicular?

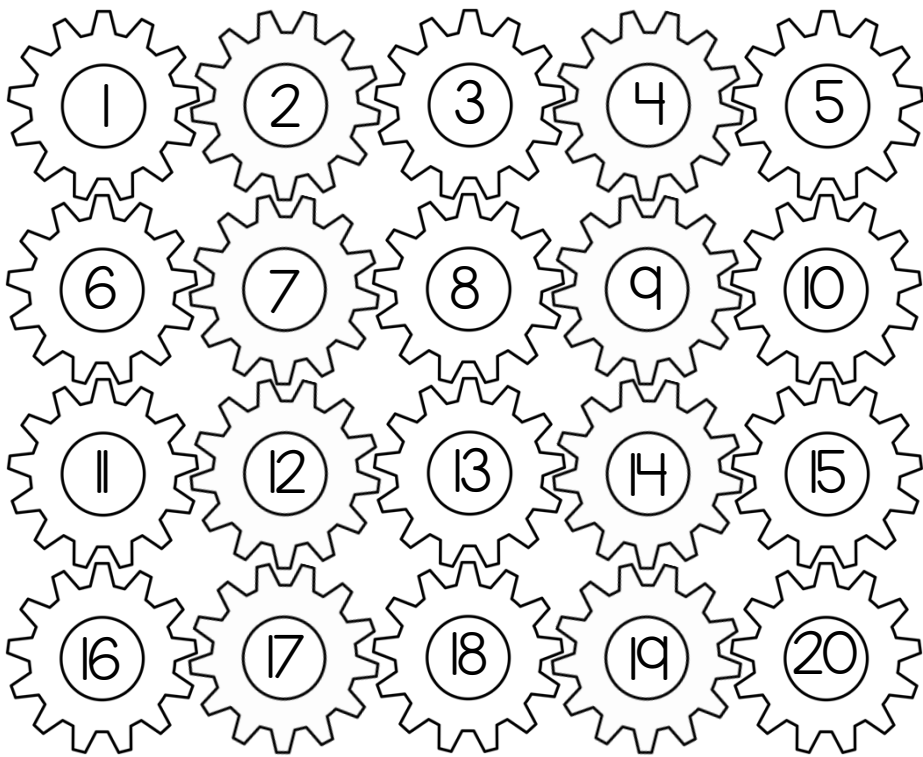
**Materials: cotton swabs**

Name \_\_\_\_\_

# Maker Space Task Cards

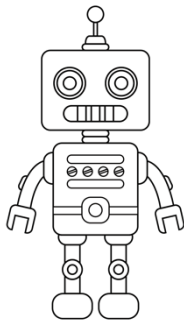
## {Cotton Swab Edition}

Use this page to keep track of the tasks that you complete.  
Color in the gear when you complete the task card



Which task was your favorite? Why?

Which was your least favorite? Why?

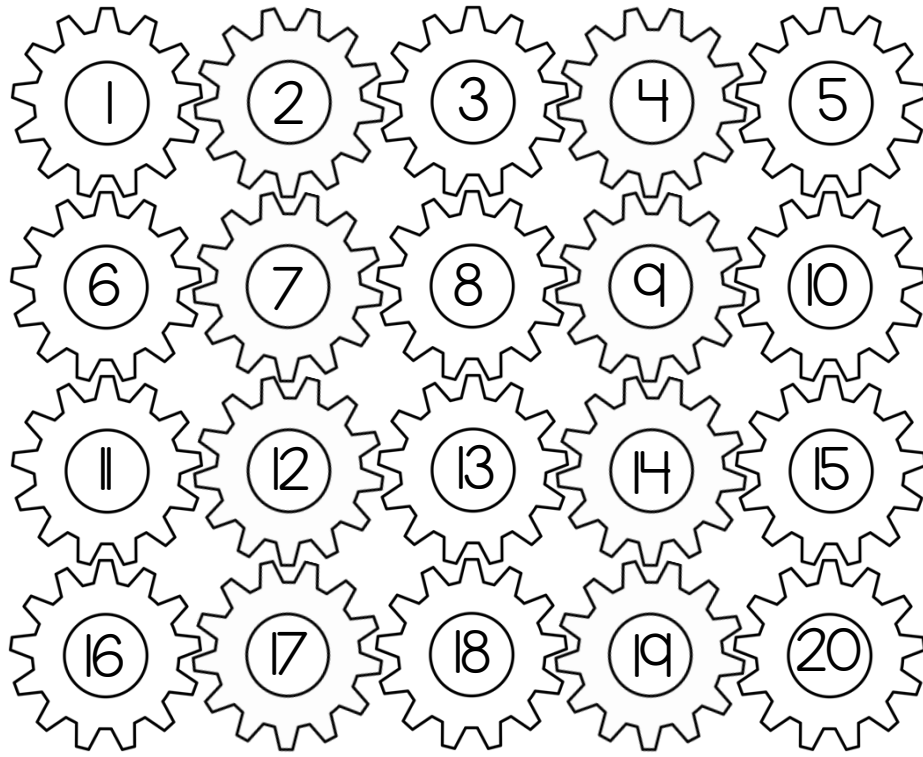


Name \_\_\_\_\_

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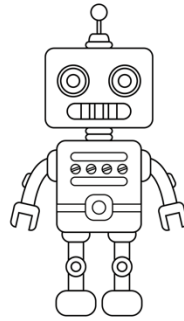
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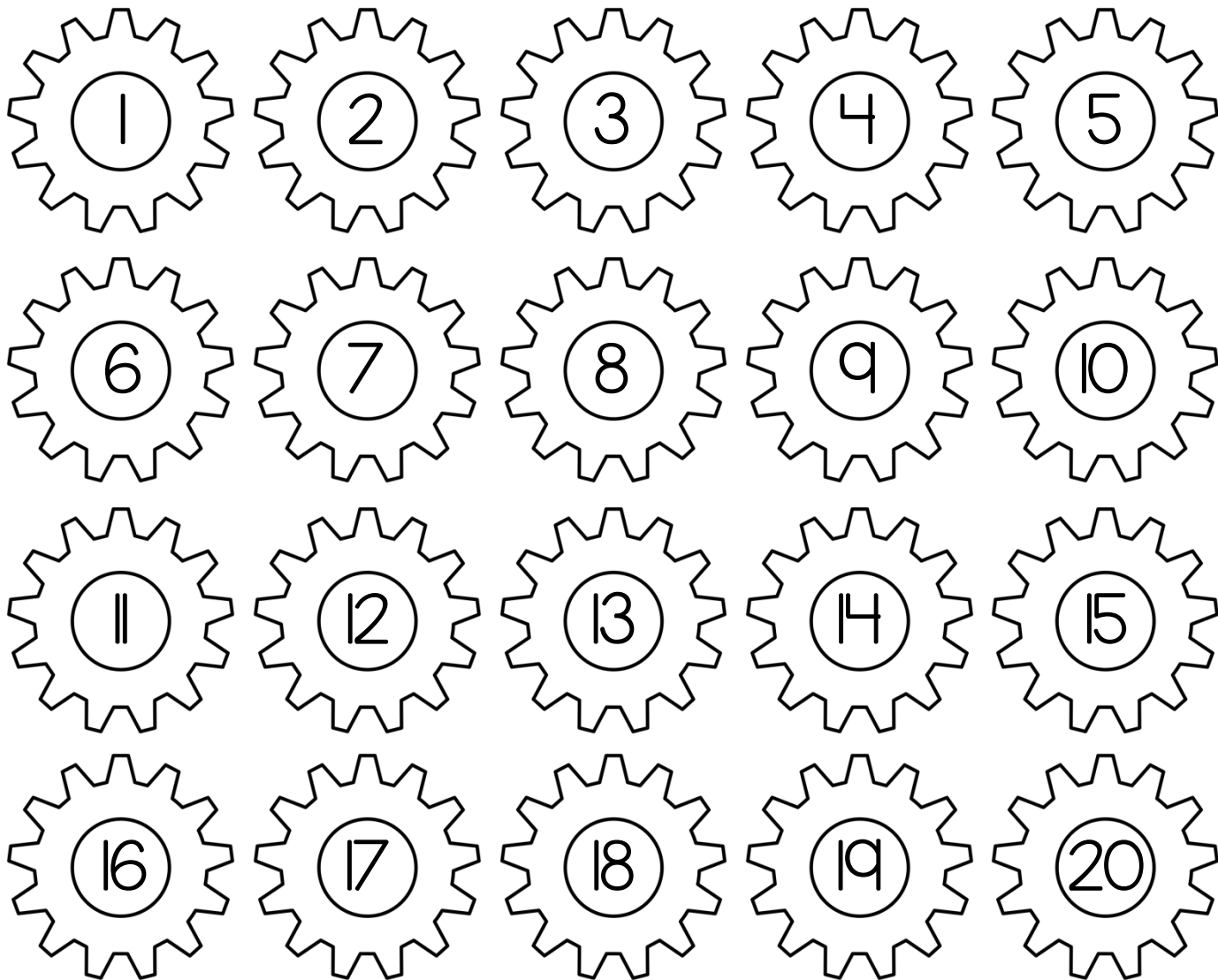


Name \_\_\_\_\_

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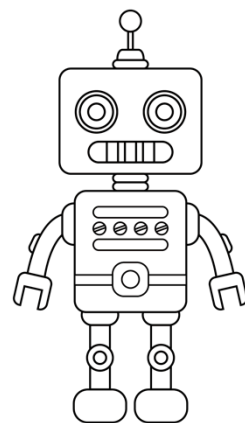
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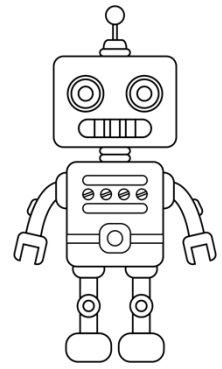
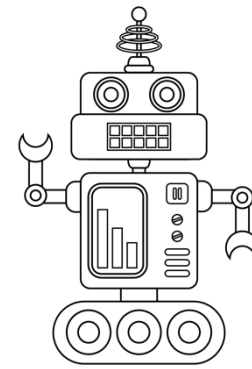
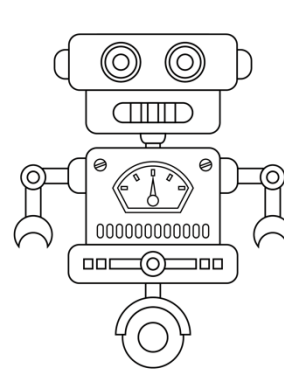
Which task was your favorite? Why?

Which was your least favorite? Why?



Name \_\_\_\_\_

# Maker Space Task Cards {Cotton Swab Edition}



	Rarely	Sometimes	Usually	Always
I create original and innovative designs.				
I try my best on all tasks.				
I use all materials the correct way.				
I work cooperatively with my teammates.				
I am flexible if my design flops.				
I am focused and engaged with the tasks.				

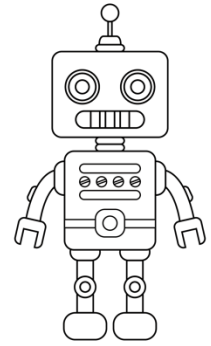
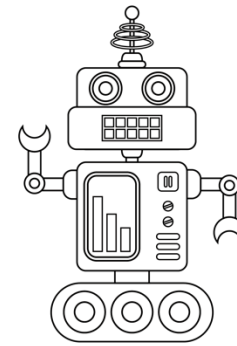
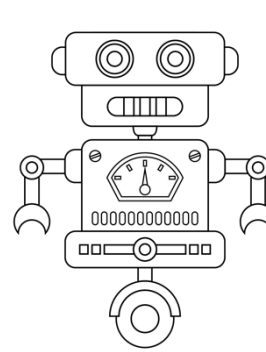
Grade:

Comments:



Name \_\_\_\_\_

# Maker Space Task Cards {Cotton Swab Edition}



	Rarely (1 point)	Sometimes (2 points)	Usually (3 points)	Always (4 points)
I create original and innovative designs.				
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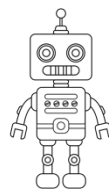
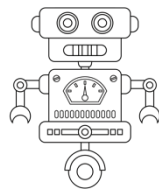
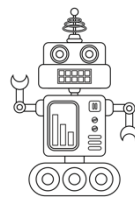
Grade:

Comments:

Name \_\_\_\_\_

# Maker Space Task Cards

{Cotton Swab Edition}



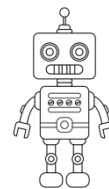
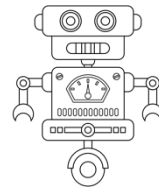
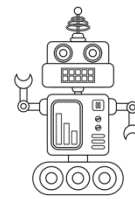
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Grade: \_\_\_\_\_ Comments: \_\_\_\_\_

Name \_\_\_\_\_

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{Cotton Swab Edition}



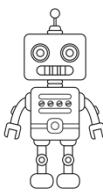
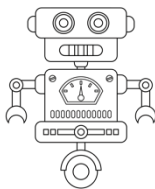
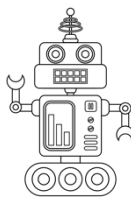
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{Cotton Swab Edition}



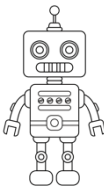
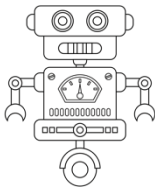
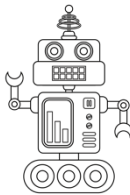
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Grade:                      Comments:

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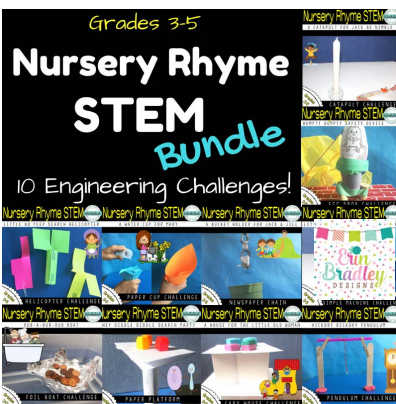
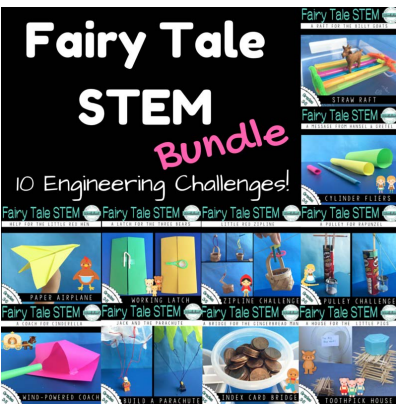


	Rarely	Sometimes	Usually	Always
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Grade:                      Comments:

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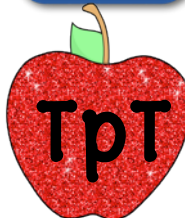
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