



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 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?

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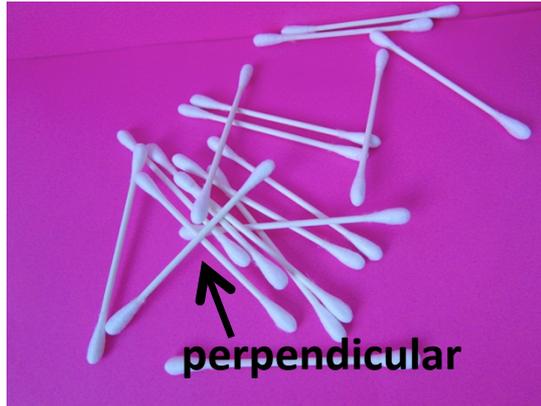
Simple S.T.E.A.M.
Cotton Swab Edition Examples

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!

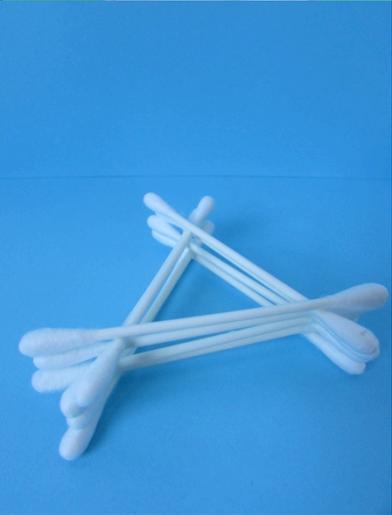
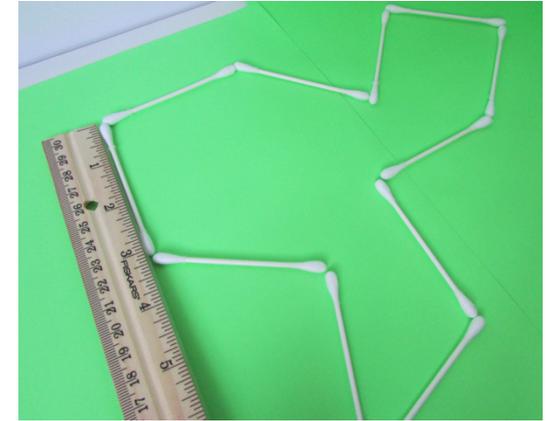
Task 14: Maze



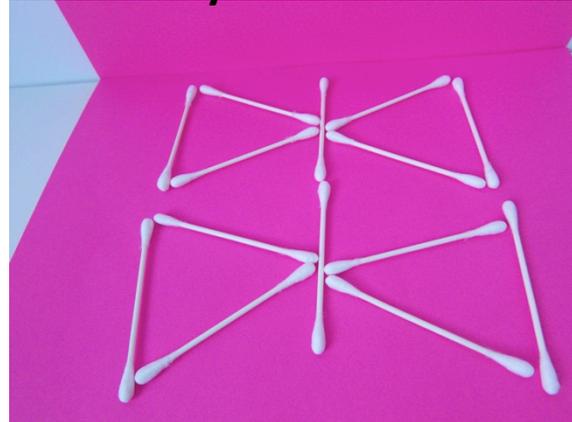
Task 20: Identify Lines



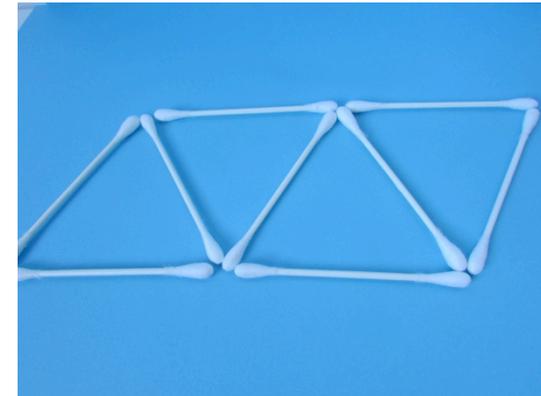
Task 2: 2-D figure with 12 cotton swabs, measure the perimeter.



Task 13: Symmetrical Butterfly



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

Task 2



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

Materials: 12 cotton swabs, ruler

Task 3



Construct a device that tosses cotton balls.

Materials: cotton swabs, rubber bands, cotton balls

Task 4



Design a 2-dimensional tessellating pattern.

Materials: cotton swabs

Task 5



Construct a model of a pig pen.

Materials: cotton swabs

Task 6



Construct a model of a piece of playground equipment.

Materials: cotton swabs, glue

Task 7



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

Materials: cotton swabs

Task 8



Construct a 3-dimensional structure with a triangle base.

Materials: cotton swabs

Task 9



Construct a house complete with a roof.

Materials: cotton swabs

Task 10



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

Materials: cotton swabs, rubber bands

Task 11



Construct a 3-dimensional square pyramid.

Materials: cotton swabs, glue

Task 12



Construct a 3-dimensional structure with a pentagonal base.

Materials: cotton swabs

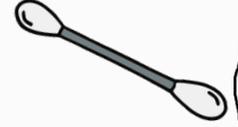
Task 13



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

Materials: cotton swabs

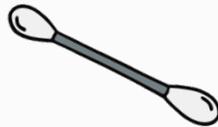
Task 14



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

Materials: cotton swabs

Task 15



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

Materials: cotton swabs

Task 16



Construct a 3-dimensional cube.

Materials: cotton swabs, glue

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



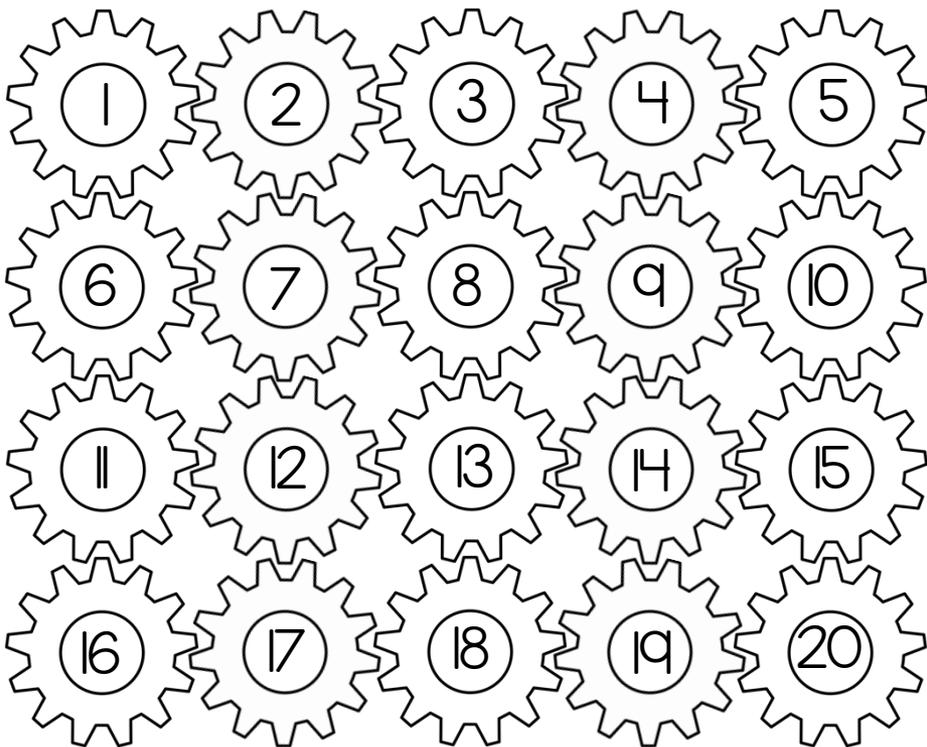
Hold a handful of cotton swabs in your hand. Drop them on a table. How many sets of intersecting lines are there. Are there any parallel or perpendicular?

Materials: cotton swabs

Name _____

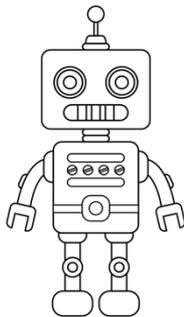
Maker Space Task Cards {Cotton Swab Edition}

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?

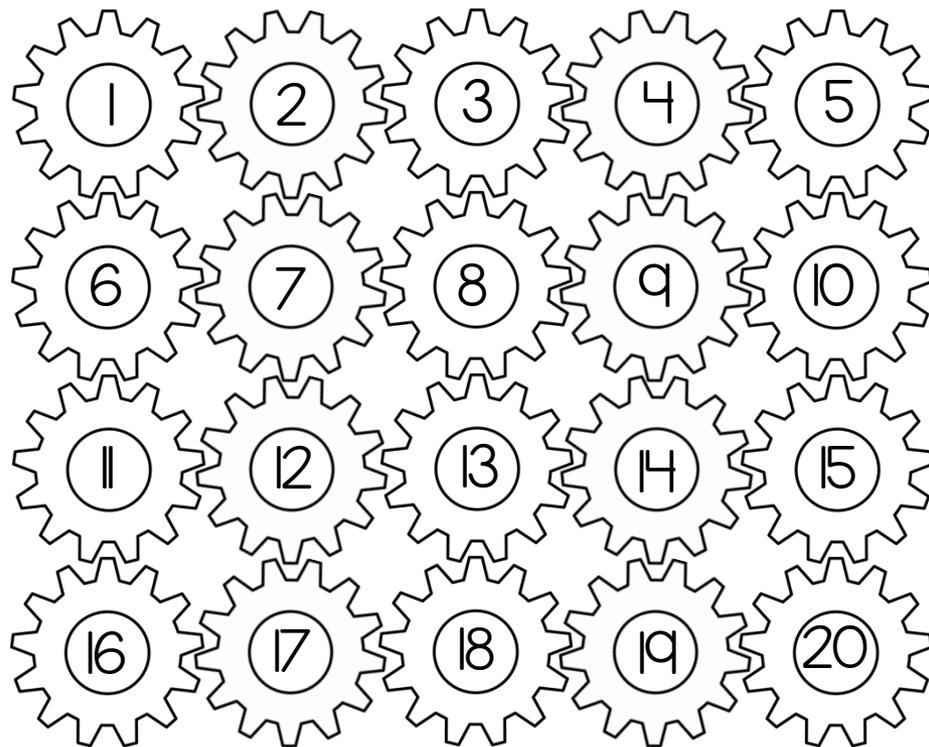
Which was your least favorite? Why?



Name _____

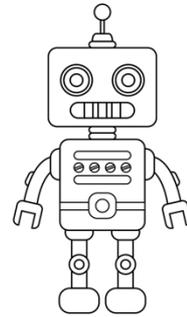
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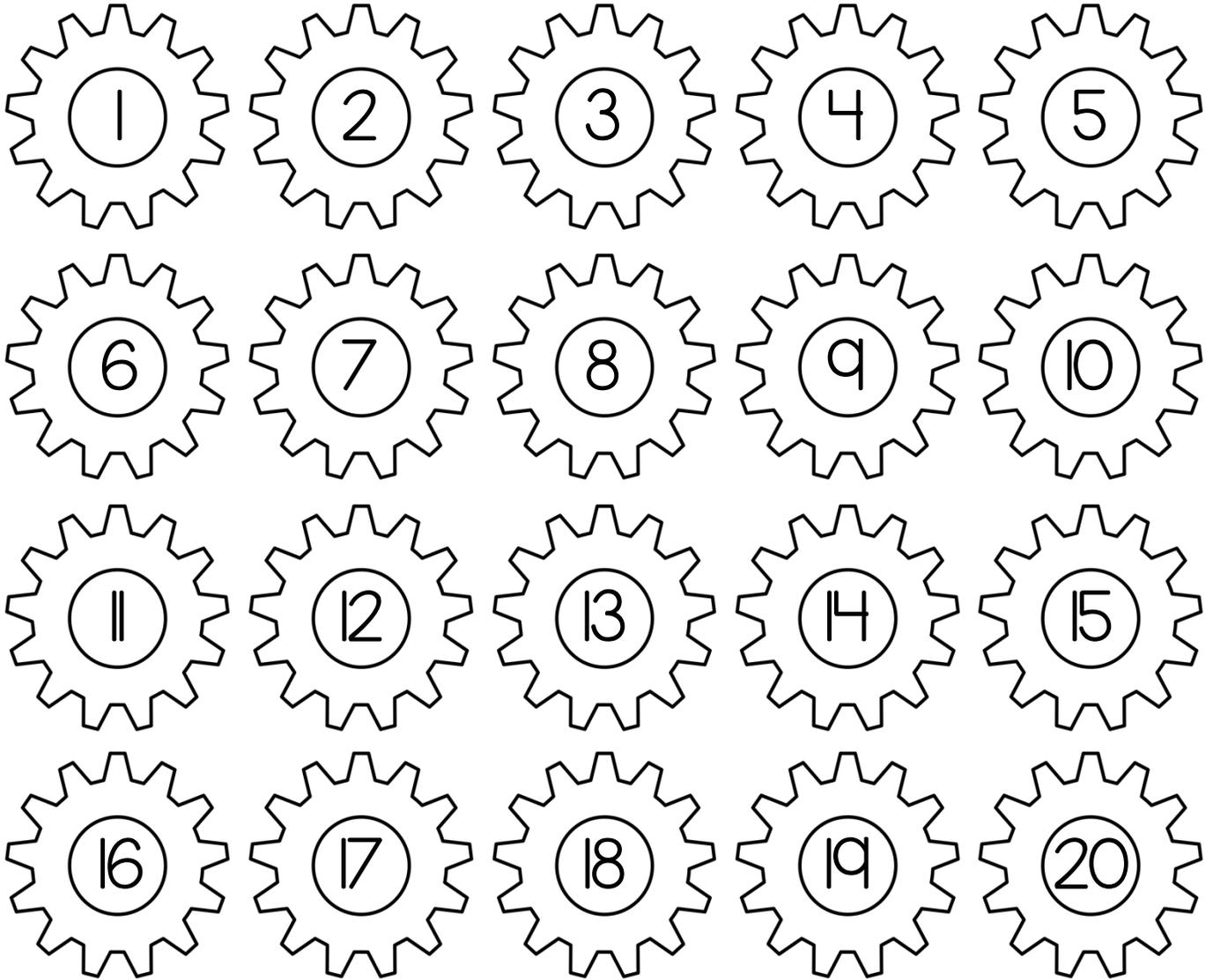
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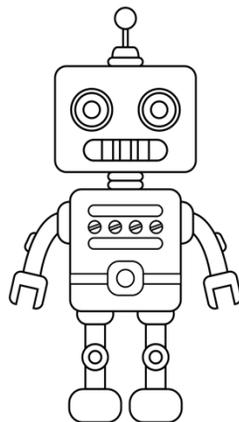
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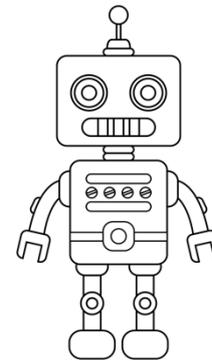
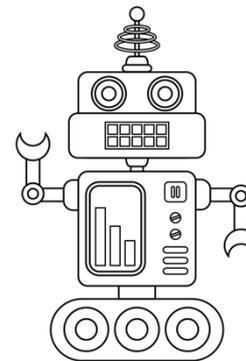
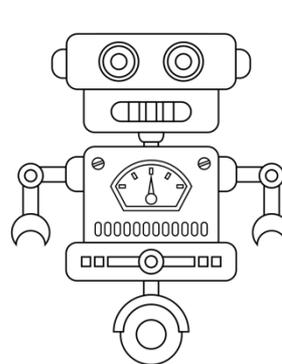
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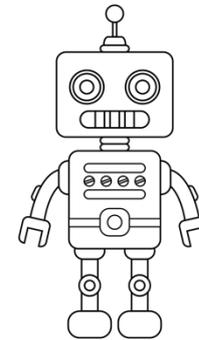
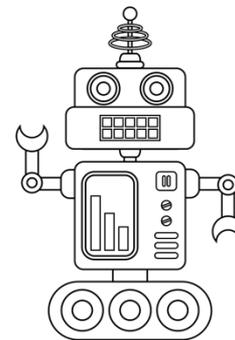
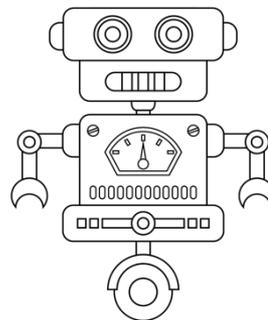
	Rarely	Sometimes	Usually	Always
I create original and innovative designs.				
I try my best on all tasks.				
I use all materials the correct way.				
I work cooperatively with my teammates.				
I am flexible if my design flops.				
I am focused and engaged with the tasks.				

Grade:

Comments:

Name _____

Maker Space Task Cards {Cotton Swab Edition}



	Rarely (1 point)	Sometimes (2 points)	Usually (3 points)	Always (4 points)
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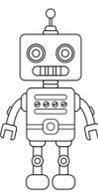
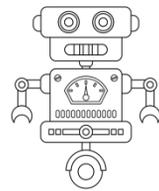
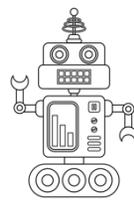
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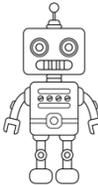
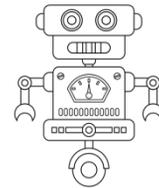
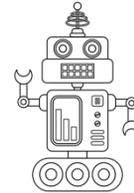
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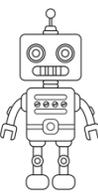
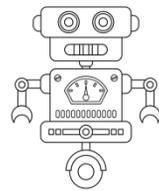
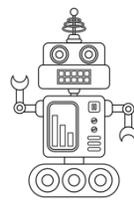
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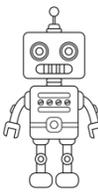
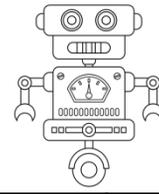
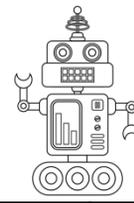
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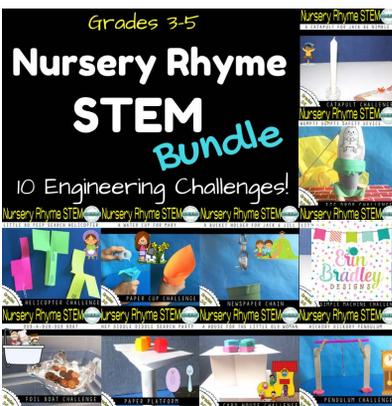
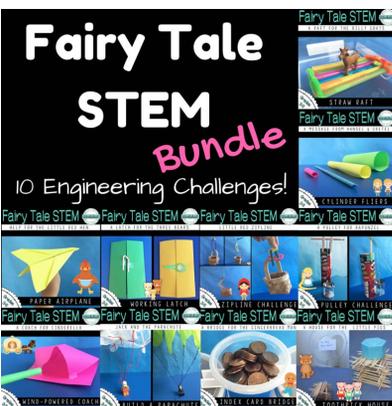
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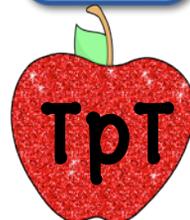
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