

# The Building Blocks of TinkerClass

TinkerClass offers four main activities: Listen, Wonder, Tinker, and Make. These four activities can be done sequentially and all together, independently as stand-alone assignments or in whatever combination supports your curriculum or the amount of time you have available.



Welcome to

## TINKER Class

Connect creativity to innovation, laughter to learning, and kids to their world. Bring the WOW to YOUR classroom!

[SIGN UP](#) [SIGN IN](#)

### How It Works

Podcasts + Projects = Podjects! Our free podject platform marvelously brings out the whiz in every student as they listen, wonder, tinker, and make.

#### Listen

Featuring episodes from the #1 kids podcast Wow in the World, TinkerClass invites students on an auditory adventure about real WOWs in the world of science, technology and innovation.

#### Wonder

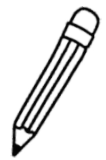
TinkerClass carves out space for creative innovation as students reflect and record all the wows and wonders the episode sparked.

#### Tinker

Students use their critical thinking skills to sort their wows and wonders, identify questions they might be able to answer, and choose "One Big Wonder" to further investigate.

#### Make

Students create, collaborate, and build confidence as they plan, investigate, and ultimately present their own WOW findings.



### Listen

#### Let's Flamingle!

How in the world can studying flamingos help humans? And what in YOUR world is wowing you?

Grades: 1st, 2nd-4th, 3rd-5th **Subject Areas:** Physical Science **Topics:** Innovation **NGSS:** 2-PS1-2, K-2-ETS1-2, K-2-ETS1-3

[LISTEN NOW](#)

### Wonder

#### What made you say Wow!

What did you Wonder?

[DOWNLOAD](#)

### Tinker

#### What "Wonder" would make a great project idea?

[DOWNLOAD](#)

### Make

#### Guided Engineering Activity: Paper Cup Challenge

Explore pressure with a step by step engineering design challenge.

Grades: 1st, 2nd-4th, 3rd-5th **Subject Areas:** Physical Science **Topics:** Innovation **NGSS:** 2-PS1-2, K-2-ETS1-2, K-2-ETS1-3

[DOWNLOAD](#)

#### Guided Design Challenge

##### PAPER CUP CHALLENGE

This activity aligns with Let's Flamingle!

[DOWNLOAD](#)

#### Make Your Own Experiment

Design, test, and present an experiment!

[DOWNLOAD](#)

#### Make Your Own Design Challenge

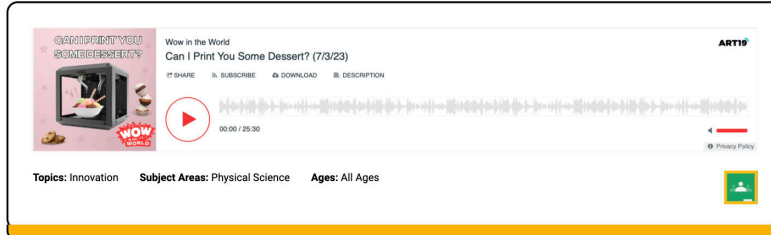
Build, test, and present a one-of-a-kind design podject!

[DOWNLOAD](#)



# Listen

Listening is an important skill children need to develop. With **LISTEN** teachers assign specific episodes from our curated library of engaging content.



## Activities & Resources



### Activity Guide: Can I Print You Some Dessert?

Check out all our awesome episode activities in one printable bundle.



### Booklist: Can I Print You Some Dessert?

Explore the episode further with these awesome books.



### Recipe: Cheesecake Cupcakes

These Cheesecake Cupcakes are an easy to make, crowd pleasing dessert.



### Article: Can I Print You Some Dessert?

Read all about the real-world wonders and wows that inspired this episode.



### Convo Starters: Can I Print You Some Dessert?

Curious questions to inspire conversations about this episode.

Did you know that through audio, students can comprehend content that is 2-3 grade levels above their reading level? Listening to episodes of Wow in the World is a great way to deliver rich content aligned with your curriculum.

With episodes about everything from animals to climate change to innovations to space and more, there is truly something in our TinkerClass audio library for everyone! Episodes can be sorted by subject, topic or Next Generation Science Standards (NGSS), allowing you to choose an episode to:

- Connect to a specific topic or unit of study you are planning for.
- Use as a springboard for beginning a new unit of study.
- Cover a specific standard you are required to cover.
- Satisfy or ignite curiosity about a topic.
- Review or deepen content that has been previously covered.





# Wonder

Reflection is key to active listening. In the **WONDER** phase students reflect on what they heard and record what made them say, “Wow!” They then move on to brainstorm and record what they are wondering about after listening.



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Wows can be anything that surprises or interests the listener while listening.

Wonders are the ideas and questions sparked by the episode. Ideally wonders will be ideas and questions students can go forth and build an experiment or engineering design project around.



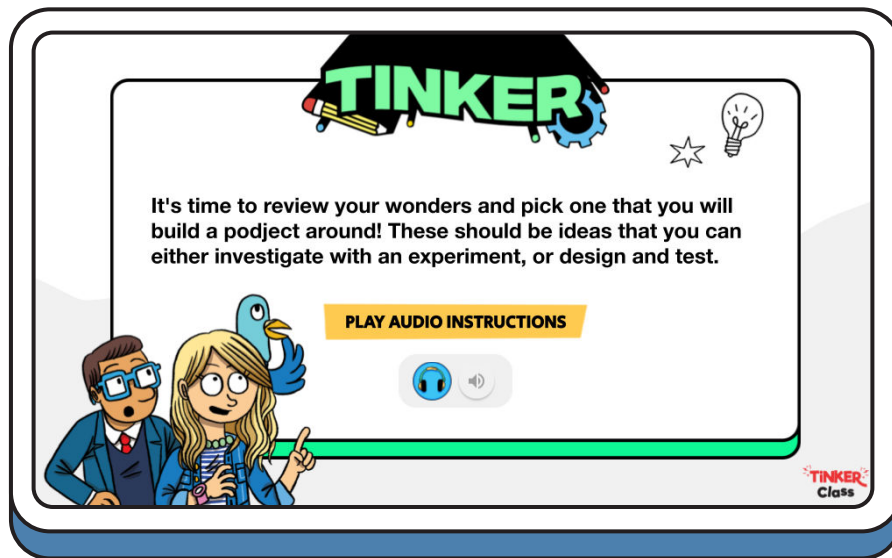


# Tinker

This step is a great companion to **WONDER** as it guides students to think critically about their initial ideas and work collaboratively toward choosing one “**BIG WONDER**” to investigate. Big Wonders should be ideas they can successfully investigate with an experiment or by designing something to test. This step supports Collaboration and Communication.

TINKER is a great companion to WONDER. While WONDER is meant to be an independent activity, TINKER is meant to function as a collaborative brainstorm.

We recommend that each student choose one Wonder from their independent Wondering to share with the group. Then as a collective, the group will discuss and compare all the ideas and ultimately narrow them down to one **BIG WONDER** that they could potentially build a podject around.



### Our Big Wonders

Everyone will choose one of their individual WONDERS and share it here. Then, as a group, you will discuss them and choose one to move forward with and build a podject around.

Add text or a drawing here!	Add text or a drawing here!	Add text or a drawing here!	Add text or a drawing here!
Name:	Name:	Name:	Name:

Duplicate this slide if you have more Wonders!

### The Big Wonder

Copy the wonder from the previous page that your group thinks will lead to the best podject.

Paste your wonder here!



# Make

Here students are guided through an experiment or an engineering design activity. **MAKE** is a place to actively investigate a real-world question, challenge or problem AND a place to record what happens during the experimentation or design process.

The screenshot shows a user interface for a 'Make' activity. At the top left is a red circular icon with a notepad and pencil, followed by the word 'Make' in bold. Below this is the title 'Guided Engineering Activity: Spider Web Challenge'. A description follows: 'Explore how to make a spider web with a step by step engineering design challenge.' Below the description, it says 'Grades: 1st, 2nd-4th, 3rd-5th Subject Areas: Life Science'. There are two buttons: a 'DOWNLOAD' button and a green icon of a person. Below this is the section 'Make Your Own Experiment' with the text 'Design, test, and present an experiment!' and another 'DOWNLOAD' button and green icon. To the right, there is a 'Guided Design Challenge' section titled 'SPIDER WEB CHALLENGE' with a subtext 'This activity aligns with SpiderMindy to the Rescue' and a small image of a spider web. Below this is a blue bar with the text 'Tinkering Class'.



Every episode in the TinkerClass library has three corresponding MAKE options—an affiliated Guided Activity designed specifically for that episode, as well as the Make Your Own Experiment and Make Your Own Engineering Design Activity templates that pair with all of our episodes.

You can browse all of the Guided Activities from the Explore Podjects page by episode title, subject, curriculum topic, or Next Generation Science Standards (NGSS)

The screenshot shows a grid of guided activities in the TinkerClass library. At the top, there are tabs for 'Activities' and 'Episodes'. Below the tabs are search filters: 'Search by Keyword', 'Filter by Grade', 'Filter by Subject Area', 'Filter by Topic', and a 'CLEAR ALL' button. The grid contains nine activity cards, each with a title, a description, and a 'VIEW PROJECT' button. The activities are: 'Make It Louder', 'Spider Web Challenge', 'Bird Nest Challenge', 'Spaghetti Tower', 'Marshmallow Challenge', 'Can You Move It?', 'Paper Airplane Challenge', 'Paper Cup Challenge', and 'Designing Instruments'.



# Guided vs Make Your Own Activities



Having these two pathways allows you to respond to the variance amongst your students and respond to the time and space you have in your schedules

**Guided Design Challenge**

**SPAGHETTI TOWER**

This activity aligns with Pop-Up Pasta Party

**The Big Wonder**

Engineers identify and try to solve problems they see in the world, which often lead them to create WOW-mazing design solutions. The problem or Big Wonder we will focus on today is, "I wonder how to make the tallest, strongest structure possible using spaghetti tape and string?" Record your ideas here.

**THINGS YOU KNOW OR WONDER ABOUT**

BUILDING TOWERS

**The Plan**

**MATERIALS**

- 20 pieces of dried spaghetti
- Masking tape
- One yard of string
- One large marshmallow
- Clock, timer or stopwatch

Let's get ready, Engineers! Gather the materials and add a photo of them here.

**Build & Test**

Here we go, it's design time! Follow these steps to investigate The Big Wonder.

**WOW-TO:**

Step 1: Set a timer for 18 minutes.

Step 2: The challenge is to build the tallest spaghetti tower possible using all of the suggested materials and nothing else.

Step 3: The only rules here are that the structure must stand on its own and support the marshmallow on top of the structure.

Add your photo here.

**Improve & Retest**

Reflect on your work. How might you improve things? Maybe it's time to try using the materials in different ways.

**Reflect**

**WOW FINDINGS!**

What WOWed you?

What did you learn?

Add text, photos, video, or audio here!

Guided Podjects provide more scaffolding as they invite students to follow along, step-by-step, through a TinkerClass science experiment or engineering design challenge. They provide high-quality, ready-to-go content, perfect for first-time users, younger grade levels or teachers short on planning time.

**Make Your Own Design Challenge**

**Your Title Here**

Build, test and present a one-of-a-kind design podject

**The Big Wonder**

Engineers identify and try to solve problems they see in the world. What problem or BIG WONDER would you like to try to solve? Record it here.

*Hint: Make sure your BIG WONDER is something you can attempt to design and build.*

**The Ideas**

Think big! What Ideas do you have for attempting to solve your chosen problem or BIG WONDER? Record all of your ideas here.

**The Plan**

Now you will choose one of your ideas and make a clear plan or diagram of what you will be designing to solve this BIG WONDER or problem. Make sure your work is clearly labeled!

**WOW-TO:**

Add text, photos, video, or audio here!

**Build & Test**

**MATERIALS**

Okay Engineers, it's time to bring your plan to life! Gather the materials you plan to use and then document them on this slide.

**Epic Fails & Improvements**

How will you know if your creation solved the problem you identified? Test it out a few times and record the results here. Then think about how you might improve your design.

**IMPROVE** **RETEST**

Make Your Own Podjects are more open-ended and lay out a general framework for planning and conducting an experiment or building and then testing an engineering challenge but let the user come up with the content themselves.