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# ICE CREAM STEM CHALLENGE

## Keep It Cold



### Challenge:

Create a container that helps keep an ice cube or pretend ice cream cold.

### Suggested Materials:

- foil
- cotton balls
- felt
- bubble wrap
- cups
- tape

# 2

## ICE CREAM STEM CHALLENGE

### Cone Holder



#### Challenge:

Build a stand that can hold an ice cream cone upright.

#### Suggested Materials:

- cups
- cardboard
- craft sticks
- tape
- paper
- straws

# 3

## ICE CREAM STEM CHALLENGE

### Scoop Tower



#### Challenge:

Build the tallest tower of pretend ice cream scoops.

#### Suggested Materials:

- cotton balls
- paper circles
- cups
- tape
- craft sticks
- cardboard

# 4

## ICE CREAM STEM CHALLENGE

### Sundae Bridge



#### Challenge:

Build a bridge that can hold pretend sundae toppings.

#### Suggested Materials:

- craft sticks
- cardboard
- tape
- straws
- paper clips
- pennies

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## ICE CREAM STEM CHALLENGE

### Sprinkle Sorter



#### Challenge:

Create a tool or tray that sorts pretend sprinkles by color or size.

#### Suggested Materials:

- paper
- cups
- tweezers
- cardboard
- tape
- beads

# 6

## ICE CREAM STEM CHALLENGE

### Ice Cream Cart



#### Challenge:

Build a cart that can carry ice cream treats.

#### Suggested Materials:

- cardboard
- bottle caps
- straws
- tape
- cups
- craft sticks

# 7

## ICE CREAM STEM CHALLENGE

### Melt Test Shield



#### Challenge:

Design a cover that slows melting from warm air or light.

#### Suggested Materials:

- foil
- paper
- felt
- plastic wrap
- tape
- cups

# 8

## ICE CREAM STEM CHALLENGE

### Menu Board Stand



#### Challenge:

Build a stand that holds an ice cream menu upright.

#### Suggested Materials:

- paper
- cardboard
- craft sticks
- tape
- straws
- clips

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# ICE CREAM STEM CHALLENGE

## Scoop Grabber



### Challenge:

Create a tool that can pick up ice cream scoops.

### Suggested Materials:

- craft sticks
- rubber bands
- spoons
- tape
- cups
- paper clips

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## ICE CREAM STEM CHALLENGE

### Delivery Box



#### Challenge:

Design a box that can safely carry ice cream treats without tipping.

#### Suggested Materials:

- cardboard
- cups
- foil
- tape
- paper towels
- string

Name: \_\_\_\_\_

# Ice Cream STEM Challenge

**Challenge Name:**

\_\_\_\_\_

**Make a Plan:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Draw Your Design:**

**Materials Needed:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Test it: Did it work?**

Yes

No

**Improve it:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**One thing I learned:**

\_\_\_\_\_  
\_\_\_\_\_

Name: \_\_\_\_\_

# Ice Cream STEM Challenge

**Ask: What problem are you solving ?**

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**Imagine: What are your ideas?**

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**Plan: Draw & label your design**

**Create!**

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**Test it!**

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**Improve it!**

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**Explain: What works? What doesn't work? What would you do differently next time?**

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Name: \_\_\_\_\_

# Ice Cream STEM Challenge

**Challenge Name:**

**Supplies:**

**Draw Your Design:**

**Test it: Did it work?**

**Yes**

**No**

**Almost**

**I can make it better by...**

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Name: \_\_\_\_\_

# Ice Cream STEM Challenge

## Team Members

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## Our Challenge:

## Our Plan:

## Our Design:

Team Jobs:

## How will we test it?

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Name: \_\_\_\_\_

# Ice Cream STEM Challenge Reflection

**The hardest part was...**

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**The best part was...**

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**One thing I changed was...**

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**Next time, I would...**

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**My design worked because...**

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Name: \_\_\_\_\_

# Ice Cream STEM Challenge

## Rubric

Criteria	4 Excellent	3 Good Job	2 Keep Trying	1 Beginning
Planning	We made a clear plan and explained our ideas in detail.	We made a plan and explained most of our ideas.	We made a plan, but it was a little unclear.	We did not make a plan or share our ideas.
Building	We built a strong, creative design and used our materials well.	We built a good design and used our materials well.	Our design works somewhat, and we used some materials well.	Our design does not work well, and we did not use materials well.
Testing	We tested our design carefully and recorded our results.	We tested our design and recorded some results.	We tested our design but did not record all our results.	We did not test our design or record results.
Teamwork	We worked together, listened to each other, and helped everyone.	We worked together and listened most of the time.	We worked together some of the time.	We did not work well together.
Improvement	We improved our design using what we learned from testing.	We made some improvements using what we learned.	We made a small change, but it did not help much.	We did not try to improve our design.