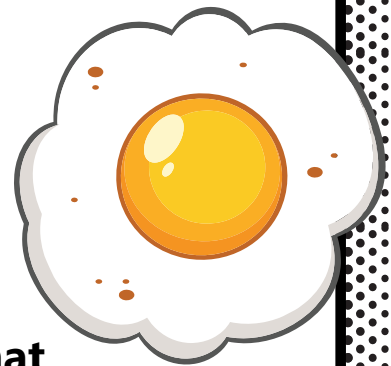


JR-ENGINEERS

EGG DROP CHALLENGE



CAN YOU DROP AN EGG AND NOT BREAK IT?

Design and build a device that will hold an egg that when dropped from a height the egg in the device doesn't break. (Make sure to design your device so that the egg will fit inside of it.)

**Supplies: Raw egg, cardboard tube, cup, box, tape, scissors
External protection materials, like balloons, rubber bands, craft sticks, straws**

Internal padding, like fabric, packing materials, paper

Time Constraint: 30 minutes (or more if time allows)

Set up: Design a landing craft that protects your egg when it's dropped. Design your container, test it to see if it works, change your design to make it better, and re-test to get new results.

Questions for Reflection:

Did your first design work?

What were some of the challenges you discovered along the way?

THE GREAT EGG DROP STEM CHALLENGE



Challenge:

Design and build a device that will hold an egg that when dropped from a height the egg in the device doesn't break.

Goals:



1. Use the STEM design process to design and build a device to protect an egg when dropped from a height.

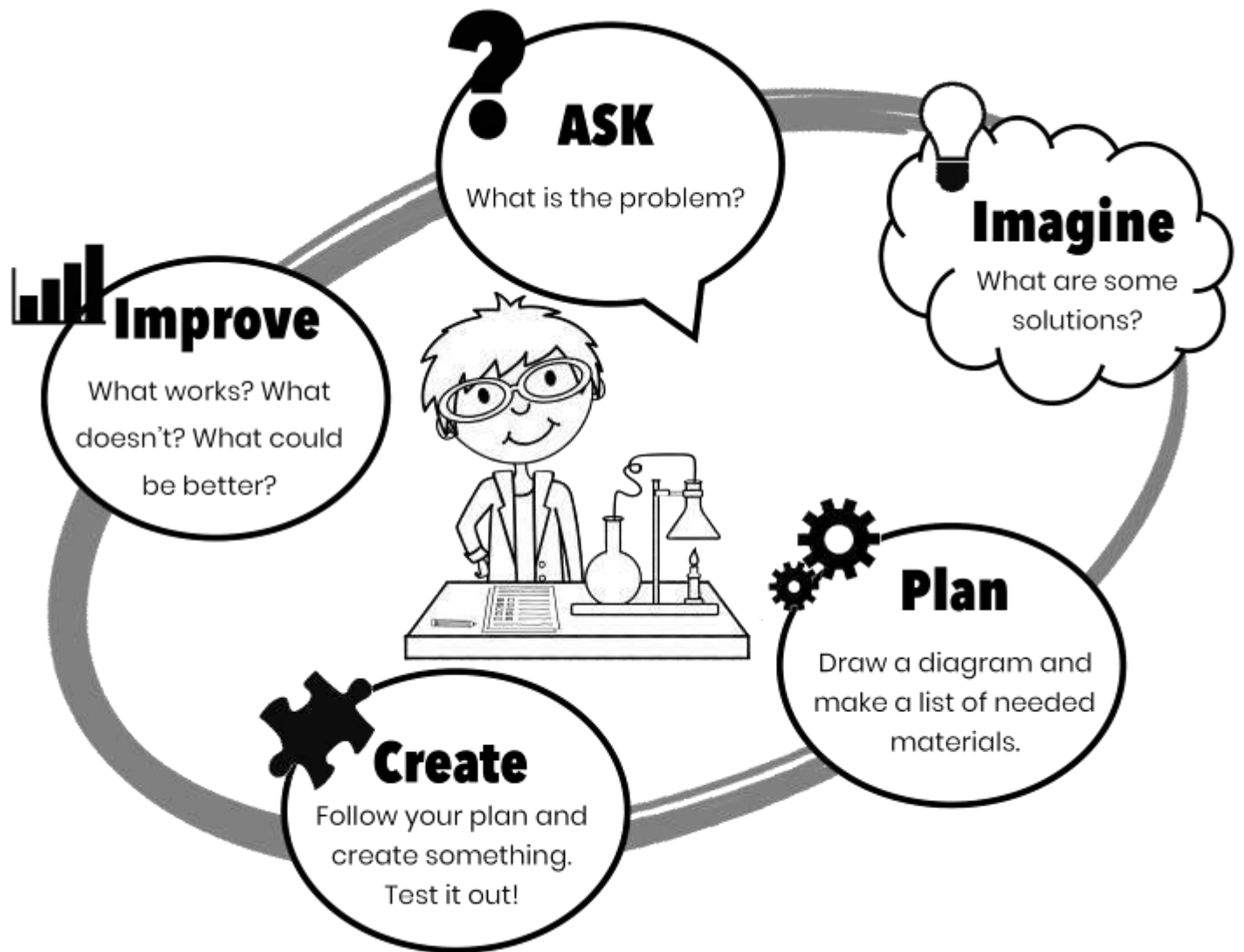
2. Make sure to design your device so that the egg will fit inside of it.

3. Fill in engineers notebook page with design details and sketches.

4. Be able to demonstrate how your device works and what the results were following

Test	Height	Device Type	Success (Y/N)
Drop #1			
Drop #2			
Drop #3			

ENGINEERING DESIGN PROCESS



ENGINEERING DESIGN PROCESS



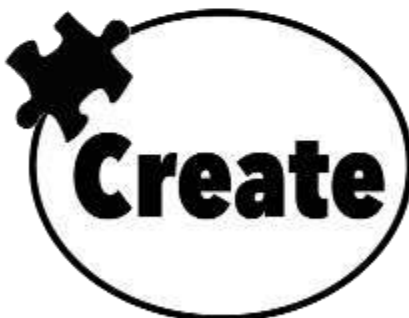
What is the problem?
What do I need to know?
How can I solve the problem?



What information will I need?
What are some solutions?
How can I solve the problem?



What things do I need to use?
Draw a diagram and make a list
of needed materials.



Follow your plan and create
something.
Test it out!



What changes can
I make to make it better?

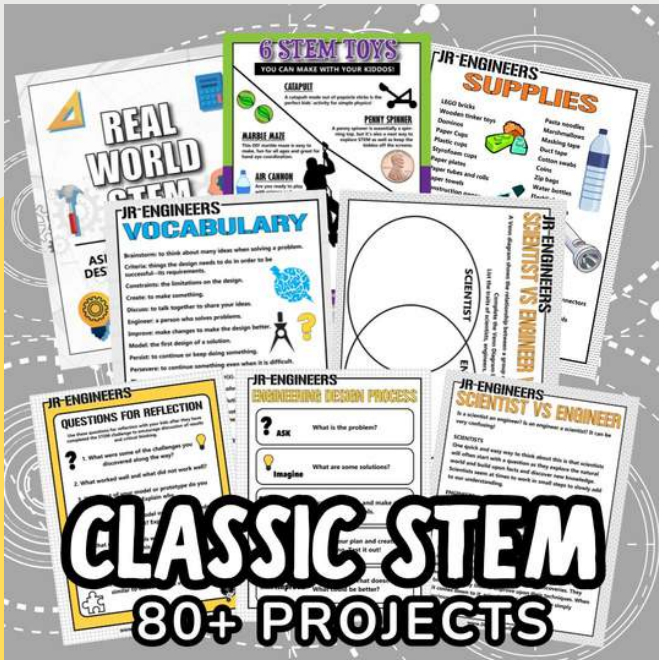
NEXT STEPS

LITTLE BINS[™] LITTLE HANDS

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- SCIENCE CALENDAR
- ENGINEERING ACTIVITIES
- FORCE AND MOTION LABS
- SCIENCE SNACK LABS



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**FOUNDATIONS OF SCIENCE:
MONTH 2**

Theme: Exploring Fall Science From Weather to Wildlife

Audience: Grades 4-6 Science Teachers or Classroom Teachers

Purpose: This month we explore how the changing seasons affect weather, plants, animals, and even the ground beneath our feet.

WEEK 1: Weather & Seasons

Theme: How does weather change, and why do we see seasons?

WEEK 2: Plants in Fall

Theme: What happens to plants as seasons change?

WEEK 3: Animals in Fall

Theme: How do animals prepare for winter?

WEEK 4: Earth & Rocks

Theme: What's under our feet? Exploring soil and rocks.

**FOUNDATIONS OF ART:
MONTH 2**

Theme: Imagines that 7 elements of art with various art styles and process-based projects.

Audience: Grades 4-6 Art Teachers or Classroom Teachers

Purpose: Explore color concepts, explore basic materials, build sketchbook habits.

WEEK 1: Color & Space - "Pointillism Fall Trees"

Artist: Georges Seurat

WEEK 2: Shape & Value - "Castle and Sun Collage"

Artist: Paul Klee

WEEK 3: Repetition & Form - "Polka Dot Pumpkins"

Artist: Yayoi Kusama

WEEK 4: Storytelling & Texture - "Story Quilts"

Artist: Faith Ringgold

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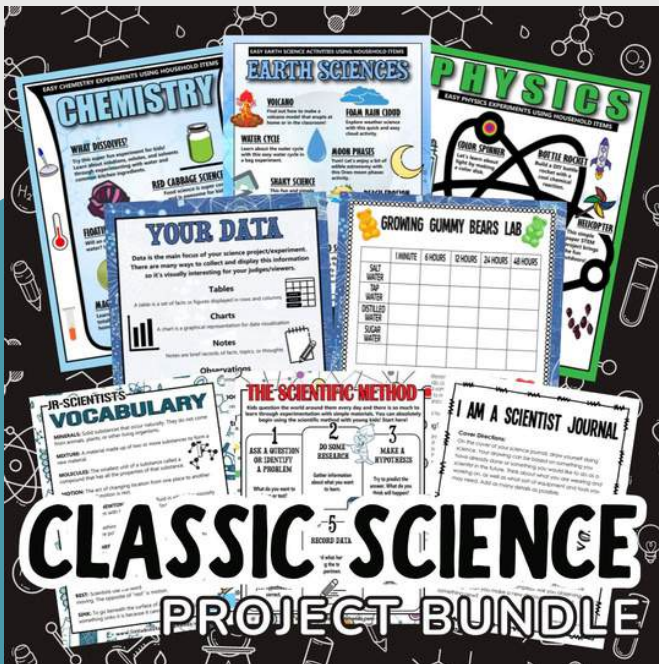
Little Bins for Little Hands helps make hands-on learning easy for families and educators by providing simple, engaging science experiments, STEM activities, art projects, and printable resources that encourage curiosity, creativity, and learning through play.

NEXT STEPS ^{mc} LITTLE BINS LITTLE HANDS

IF YOU LIKED THIS ACTIVITY, TRY THESE PROJECTS:



- ENGINEERING CALENDAR
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- SCIENCE SNACK LABS
- KITCHEN CHEMISTRY



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Theme: What happens to plants as seasons change?

WEEK 3: Animals in Fall

Theme: How do animals prepare for winter?

WEEK 4: Earth & Rocks

Theme: What's under our feet? Exploring soil and rocks.

FOUNDATIONS OF ART: MONTH 2

Theme: Imagines the 7 elements of art with various art styles and process-based projects.

Audience: Grades 4-6 Art Teachers or Classroom Teachers

Purpose: Explore color concepts, explore basic materials, build sketchbook habits.

WEEK 1: Color & Space - "Pointillism Fall Trees"

Artist: Georges Seurat

WEEK 2: Shape & Value - "Castle and Sun Collage"

Artist: Paul Klee

WEEK 3: Repetition & Form - "Polka Dot Pumpkins"

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