

Time Capsule Design Brief

Name _____

Essential Question: What factors effect evolution?

Grade 3

Title: Time Capsule Design Brief

Background: As time goes by everything changes. Look around you. Everything changes over time; nature, animals, our community, even you.

Design Challenge: You will need to complete a KWL chart about what you know about changes and how you think things change over time. Your team needs to design a time capsule that will be buried outside. It will need to withstand various weather elements as well as the weight and characteristics of soil.

Criteria: Your team must create a capsule that...

- ❖ is smaller than 3"x3"x3"
- ❖ is able to hold the contents you choose
- ❖ is able to keep the contents you choose dry
- ❖ is able to keep the contents you choose in its original condition (not smashed, bent, broken, or rotted)
- ❖ contains something that is meaningful to your group from the past, something meaningful to the group from the present, and something that you think will be meaningful to your group in the future.

Resources:

cotton	construction paper	bags
balloons	cardboard tubes	plastic bottles
styrofoam	cardboard	glue
egg cartons	craft sticks	ruler
tape	glue	other supplies provided by management

PCSD STEM "Innovating Me"

Grade: Me and my future

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Guided Portfolio—1

Group Members and role: _____

What is the challenge? State the problem/task in your own words.



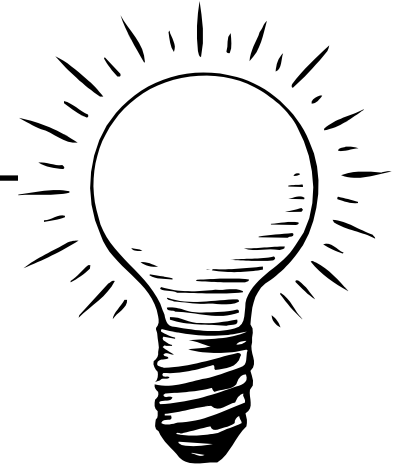


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Guided Portfolio—2

Brainstorm solutions.

Draw a blueprint of your solution.



A large, empty rectangular area with rounded corners, enclosed by a thick black border. This area is intended for drawing a blueprint of the solution. A horizontal line extends from the right side of this area to the base of the lightbulb illustration above it.

Guided Portfolio—3





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Guided Portfolio—4

Test your solution.

- | | | |
|---|-----|----|
| 1. Did your group create a capsule that is smaller than 3"x3"x3"? | YES | NO |
| 2. Did your group create a capsule that is able to hold the contents you chose? | YES | NO |
| 3. Did your group create a capsule that is able to keep the contents you chose dry? | YES | NO |
| 4. Did your group create a capsule that is able to keep the contents you chose in its original condition (not smashed, bent, broken, or rotted)? | YES | NO |
| 5. Did your group create a capsule that contains something that is meaningful to your group from the past, something meaningful to the group from the present, and something that you think will be meaningful to your group in the future? | YES | NO |



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Guided Portfolio—5

Brainstorm solutions.

Draw blueprints of any changes that your group makes and any ways that your group can improve your design.



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Guided Portfolio—6

Evaluate your solution.

Was it the best solution? Would one of your other ideas have been better? Why or why not?

What would you have done differently?

Could you add to it to make it better? What would you add to it?



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Attach a photograph of your final project here. If you do not have a photograph, draw a picture of your final project.



How would you make your project better? Draw a picture showing how it would look after you have made changes to it.

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KWL: Artifacts

What we <u>KNOW</u> .	What we <u>WANT</u> to know.	What we <u>LEARNED</u>

