

SAVE MAMA SPIDER'S EGG

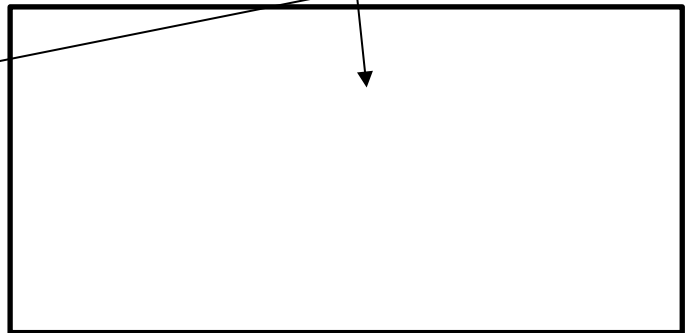
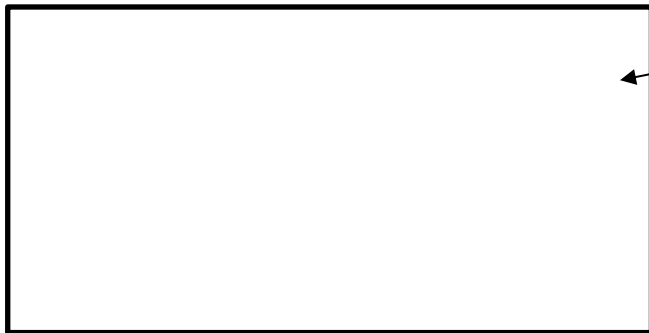
Engineering Challenge: Mama spider is dropping her eggs. Your challenge is to engineer a "spider web" to catch her eggs without breaking the egg. The egg must be free-falling with nothing attached to it.

Supplies: Each group (2-3 students) will get one plastic container and 3 meters of webbing. You may buy additional items if you choose.

Budget: YOU HAVE \$25

Material	Cost (\$)	Quantity	Cost x Quantity
Masking Tape	\$5 for 1 meter		
Cotton ball	\$2 each		
Straw	\$3 each		
Pipe Cleaner	\$4 each		
Rubber band	\$4 each		
Paper	\$6 per sheet		
Newspaper	\$10 per sheet		
Tissue Paper	\$10 per sheet		
Balloon	\$10 per sheet		
Total Cost =			

Imagine: Brainstorm several ideas you have for how to build your web. Draw pictures of 2 different web designs.



Design: Draw a simple design of your final web. →

Build: Build your web.

Test: Test your web by placing it below the chute. You will drop your egg down the chute and see if the spider web catches it without breaking.

Data: Was your web successful? _____

Analysis: After observing how your web caught the egg, explain why it was successful & why it was NOT.

Successful _____

Not successful _____

VIDEO: SPIDERS

1. What do spiders eat? _____
2. What are spider webs made of? _____
3. Are spiders insects? _____
4. How many legs does a spider have? _____
5. What phase of matter is a spider's silk before it hits the air? _____
6. What metal is a spider's silk stronger than? _____
7. How many body parts do spiders have? _____ How many body parts do insects have? _____
8. You catch spiders in a _____ net.
9. What is an exuviae? _____
10. Describe the process of a spider eating _____

11. How many spider species are there in the world? _____
12. How are spiders like rock climbers? _____
13. Are daddy long legs spiders? _____

