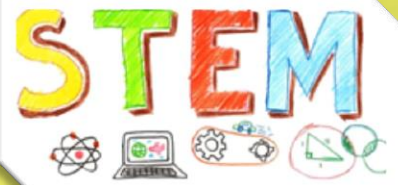




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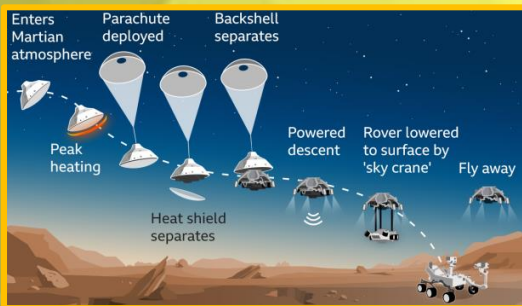
MARCH



EGG DROP

STEM FAMILY CHALLENGES

Drop an egg from height without breaking the egg.



Real Life Context

2021 saw Nasa's Perseverance Rover land on Mars. In order to safely land the vehicle without any damage, a parachute was used to slow the descent to the planet. It also used a 'sky crane' that used propulsion engines to reduce the speed of the fall to create a more cushioned landing.

Optional Digital Links: <https://bbc.in/3cNMrza>

Step 1: Design Phase

Everyone loves eggs at Easter time, but what happens when we drop an egg? Create a design to help your egg survive. Think about different parts of your design. The pod: What will your egg sit inside? The parachute: How will you attach a parachute to the pod and what will the parachute be made from to slow the fall? The base: How will you cushion the landing when the pod touches the ground? Could you use a spring design to absorb some of the impact?

Optional Digital Links: bbc.in/3tKCBon shorturl.at/allT7 shorturl.at/gSRV0

Step 2: Building

Can you find resources in your house that could be recycled to be used in your design? Maybe you could use part of the egg box or perhaps you have empty cereal boxes that could be cut up to build the pod? Your parachute might need to be light-weight and flexible: what could it be made from? Don't forget to design your egg before you place it into the pod!



Step 3: Test Your Drop

Ask an adult to help plan where you will drop your egg from. You should choose a safe place for the egg to fall from so ask an adult to drop the egg for you. Think about collecting your evidence.

Submit Your Entries: *How will you present your challenge?*

We look forward to seeing your egg drop designs. You could get a parent to scan or photograph your design drawings for you. Remember to take a picture of your design before you test it in case it is damaged in the fall! You could also video your egg drop to show how quickly your parachute design starts to work. Show us whether the egg survived – Good luck!

Ask your adult to submit your project to stem@greatlinfordprimaryschool.co.uk by **Friday 30th April**.

By submitting work, you agree to your project being used on the school website or social media platforms.