



### Starters 5-10 mins

**Announcements**..... 1 min  
Share club member achievements.

**Snack, Cackle & Pop**..... 2 mins  
**Snack:** Carrot sticks and hummus. Yummy  
**Cackle:**



**Pop:** Stemillions playlist on Spotify:  
[bit.ly/stemillionsplaylist](http://bit.ly/stemillionsplaylist)

**Meet Her**..... 5 mins  
Gillian Bullen is a Design and Development Engineer for Virgin Atlantic Airways. She has worked with Virgin Atlantic since 2002. She has earned a BTEC in Aero Engineering and an NVQ Level 3 in Aircraft Maintenance from East Surrey College and a National Certificate in Aeronautical Engineering from Perth College.

**Watch:** [bit.ly/057MeetThem](http://bit.ly/057MeetThem)

**Discuss:**

- ★ What do you think of Gillian's job?
- ★ If you could fly anywhere where would it be?

### Mains 20 mins - choose ONE only

**MAKE**..... 20 mins  
As Gillian works with planes, this experiment will look at the design features of planes and what makes them aerodynamic. Get into pairs, come up with a company name and choose one of these plane designs [bit.ly/057make](http://bit.ly/057make) and make it. Gather together as a club and look at the design of each team's plane. Predict who's plane will fly the furthest. Each team fly their plane.

- Whose plane went furthest? Why?
- What design features made it able to fly the furthest?

Each team should then modify their plane and re-test their design.

- Now, whose plane went furthest? Why?

**EXPLORE**..... 20 mins  
Find out here if you have what it takes to design an aircraft: [bit.ly/057explore](http://bit.ly/057explore). In designing an aircraft or any item, thought is given to how it will be manufactured, operated, maintained, replaced, and disposed of and who will sell, operate, and take care of it. The costs associated with these functions may introduce yet more constraints on the design. Have a go at all the activities in the link above?

### Desserts 5 mins

**Share with us** ..... 1 min  
Upload photos on Twitter or Instagram and tag @Stemettes and #Stemillions.

**Ask Her**..... 2 mins  
Got a question? Ask Away! [bit.ly/Ask-Away](http://bit.ly/Ask-Away)

**Digest**..... 2 mins  
Digest this Meal Plan: [bit.ly/digest057](http://bit.ly/digest057)