

Think

- What is in the glass beaker?
- What is it used for?
- How does the apparatus work?
- Who uses it?



Discover

Fact: The English chemist Rosalind Franklin helped James Watson, Francis Crick and Maurice Wilkins discover the structure of DNA, for which they shared the Nobel Prize in 1962. Watson suggested that Franklin may also have been awarded the Nobel Prize had she not died in 1958 at the age of only 37.

Question: Have any women ever won a scientific Nobel Prize? Conduct research so you can create a timeline of women in science. Who will you include? Who do you find most inspirational?



Discuss

Can anyone be a scientist? Why are scientists often portrayed as being old men with Einstein hair? If you study science in school are you also a scientist?



Reimagine

Marie Curie conducted pioneering research on x-rays and radioactivity becoming the first person to win two Nobel Prizes. Use chalk and charcoal to draw a detailed x-ray self-portrait.



Solve

Katherine Johnson was one of a number of mathematicians who calculated launch trajectories for the NASA space programme.

On a mission, a rocket is vertical on launch. After 5km it turns 45° clockwise, 2.5km later it turns another 60° clockwise and flies for 1km. It then turns 30° anti-clockwise before flying 4km. How far has the rocket travelled? How far from vertical is the rocket? How far from horizontal?

Challenge: Draw a scale map of the rocket's trajectory (1km: 1cm).

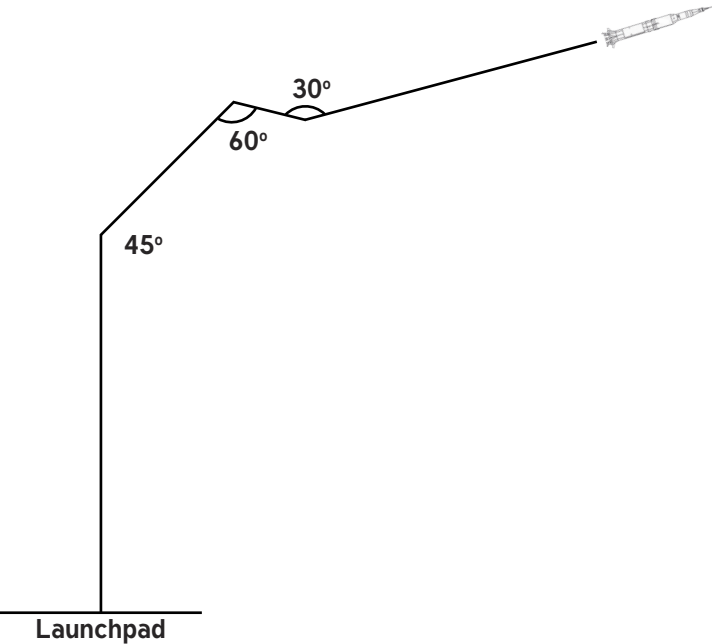


Respond

Write a news article to announce a major scientific breakthrough. Use dramatic language to captivate your readers. You could link it to work you have done in recent science lessons.



Scientists **Answers**

How far has the rocket travelled?	Draw a scale map of the rocket's trajectory.
$5 + 2.5 + 1 + 4 = 12.5\text{km}$	
How far from vertical is the rocket?	
$45^\circ + 60^\circ - 30^\circ = 75^\circ$	
How far from horizontal?	
<p>To calculate the difference between vertical and horizontal, subtract from 90°:</p> $90^\circ - 75^\circ = 15^\circ$ 