

# Knit Kit 6 - Golden Eye



*Image Credit: NASA/Desiree Stover*

Night vision goggles to the stars.

## **The Story**

Dr. Libby Jones.

I'm an astronomer who investigates how stars die. You may have heard that we are all made of star-dust, well I want to know exactly how the gold in our jewellery, the iron in our cars, or even the carbon we are made of was first created. To do this you need big telescopes in space, like Webb, that can see some of the first stars that were born. These first stars were born when the universe was made of only a few chemical elements, but we think these stars made them into the elements we see today. Webb is the first telescope that will let me check that's true. Over the past three years I have been involved in a massive global team (part led from the Royal Observatory at Edinburgh) getting it set up. Together, we can ask questions about how we came to be.

## **The Science**

The James Webb Space Telescope is to be the next big thing in space. It has been designed to see so far away that we can look into the past, at the first galaxies ever formed.

The golden honeycomb is its main mirror, which is made of 18 six-sided mirrors. Together they make one huge golden eye. The mirror acts like a satellite dish, collecting light by reflecting it onto a sensor. It is coated in gold, which is better at reflecting infrared light (the same sort of light your TV remote uses), and picks up much more light than one small mirror can. But a large mirror is harder to get into space, so it has a clever folding design so it can squeeze into a spaceship. The whole telescope has been specially made to unfold itself just right once it has arrived in space.

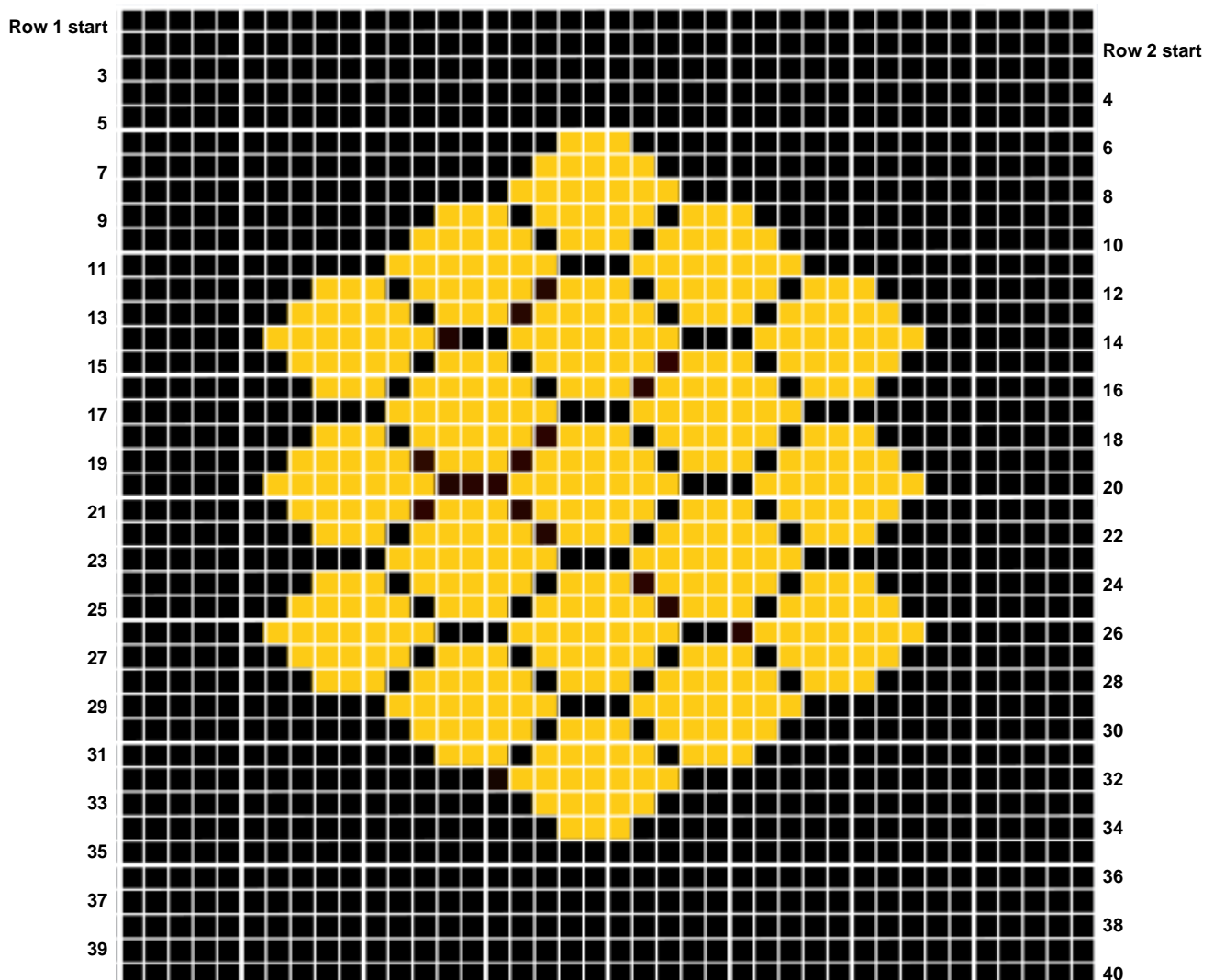
This is a simple knit.

- 2 colours of wool - we used black and mustard yellow.
- A pair of knitting needles

If you can use double-knit (DK) wool and 4mm needles, your knitting will work out around 15-18cm on each side, but use what you have or what you can get hold of.

Colours don't have to match the image, you can use whatever you or your family have lying around. In this knit, we used around 25g of both black and yellow. We knitted on 4mm knitting needles.

Skills used include: Cast On, Knit, Purl, Change Colour (fair isle), and Cast Off. Go to our website [www.knittheuniverse.co.uk](http://www.knittheuniverse.co.uk) for links to handy YouTube videos to learn these skills. Remember: After casting on, knit odd-numbered rows, changing colours as you go, and purl even numbered rows, changing colours as you go.



## Knitting Pattern

K – Knit      P – Purl

A – Yellow      B – Black

For example, P2B means purl 2 stitches in black.

Cast on 40 stitches in black (or an alternate colour).

Row 1-5: Knit odd rows, purl even rows

Row 6: P19B, P3A, P18B

Row 7: K17B, K5A, K18B

Row 8: P17B, P7A, P16B

Row 9: K13B, K3A, K1B, K5A, K1B, K3A, K14B

Row 10: P13B, P5A, P1B, P3A, P1B, P5A, P12B

Row 11: K11B, K7A, K3B, K7A, K12B

Row 12: P9B, P3A, P1B, P5A, P1B, P3A, P1B, P5A, P1B, P3A, P8B

Row 13: K7B, K5A, K1B, K3A, K1B, K5A, K1B, K3A, K1B, K5A, K8B

Row 14: P7B, P7A, P3B, P7A, P3B, P7A, P6B

Row 15: K7B, K5A, K1B, K3A, K1B, K5A, K1B, K3A, K1B, K5A, K8B

Row 16: P9B, P3A, P1B, P5A, P1B, P3A, P1B, P5A, P1B, P3A, P8B

Row 17: K11B, K7A, K3B, K7A, K12B

Row 18: P9B, P3A, P1B, P5A, P1B, P3A, P1B, P5A, P1B, P3A, P8B

Row 19: K7B, K5A, K1B, K3A, K1B, K5A, K1B, K3A, K1B, K5A, K8B

Row 20: P7B, P7A, P3B, P7A, P3B, P7A, P6B

Row 21: K7B, K5A, K1B, K3A, K1B, K5A, K1B, K3A, K1B, K5A, K8B

Row 22: P9B, P3A, P1B, P5A, P1B, P3A, P1B, P5A, P1B, P3A, P8B

Row 23: K11B, K7A, K3B, K7A, K12B

Row 24: P9B, P3A, P1B, P5A, P1B, P3A, P1B, P5A, P1B, P3A, P8B

Row 25: K7B, K5A, K1B, K3A, K1B, K5A, K1B, K3A, K1B, K5A, K8B

Row 26: P7B, P7A, P3B, P7A, P3B, P7A, P6B

Row 27: K7B, K5A, K1B, K3A, K1B, K5A, K1B, K3A, K1B, K5A, K8B

Row 28: P9B, P3A, P1B, P5A, P1B, P3A, P1B, P5A, P1B, P3A, P8B

Row 29: K11B, K7A, K3B, K7A, K12B

Row 30: P13B, P5A, P1B, P3A, P1B, P5A, P12B

Row 31: K13B, K3A, K1B, K5A, K1B, K3A, K14B

Row 32: P17B, P7A, P16B

Row 33: K17B, K5A, K18B

Row 34: P19B, P3A, P18B

Row 35 – 40: Using black, knit odd rows and purl even rows.

Cast off.