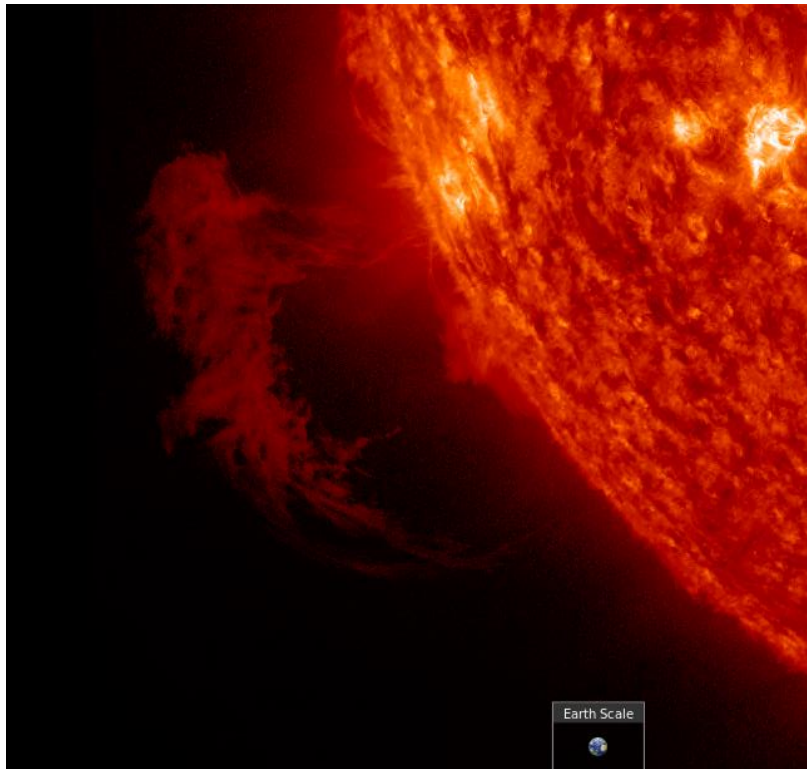


## Knit Kit 8 - A Star Scale Sneeze



*Image Credit: NASA/SDO and the AIA science team*

"You just won't believe how vastly, hugely, mind-bogglingly big it is. I mean, you may think it's a long way down the road to the chemist's, but that's just peanuts to space." - Douglas Adams

### The Story

Dr. Peter Levens

Even though I spent four whole years researching these things, pictures like this still fill me with wonder. It's very easy to lose track of just how incredible something is when you study it in detail day-in, day-out. It becomes so normal that you forget that not everyone knows anything about it! Taking a step back, though, and wow. The Sun is truly amazing, it still blows me away when I see photos and videos of events like this. And they happen all the time. The Sun is constantly throwing parts of itself out into space, and barely anyone notices because to most people it will just continue to rise and set every day, just like it always has. I think our relationship with the Sun hides just how impressive, active, and powerful it really is, but in looking at events like these we get a reminder of just how awesome our nearest star can be.

### The Science

The Sun is our very own star. It is one of the most active and interesting places in the Solar System. It has its own atmosphere and magnetic field, just like Earth but so much hotter. The hottest parts of the Sun's atmosphere can reach about ten million degrees Celsius!

When stuff gets that hot, it starts acting differently - the atoms that make it up get torn apart, turning into something called plasma, which can be affected by magnetic fields. The Sun's magnetic field is a bit of a knotted mess, and sometimes it SNAPS - throwing hot star-stuff into space. That's what is happening in the picture - as the magnetic field rearranged itself, some of the plasma that was minding its business was thrown outwards in a plume several times bigger than the entire Earth.

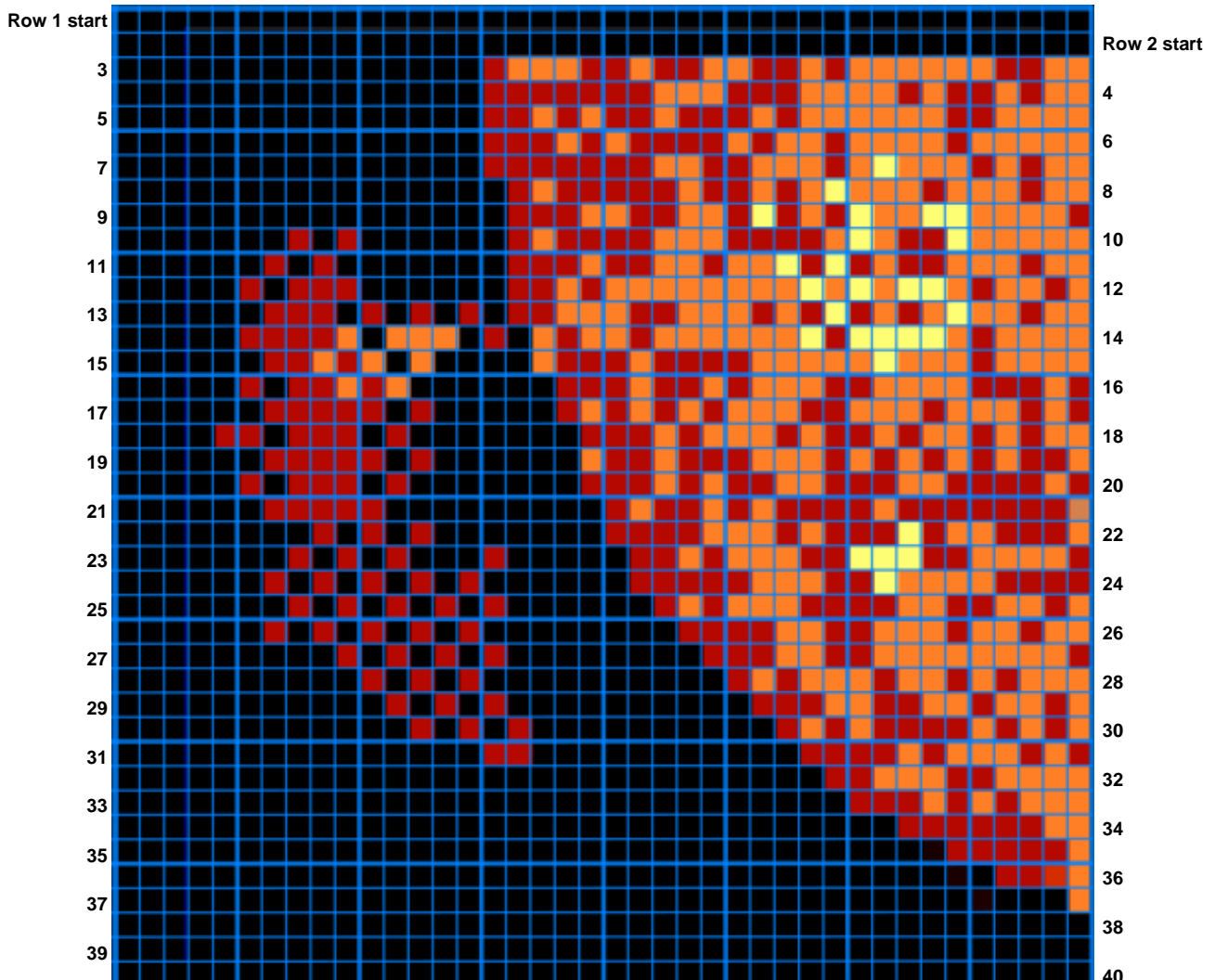
This is an intermediate knit. You will need:

- 4 colours of wool - we used black, dark red, orange, and pale yellow.
- A pair of knitting needles

And that's it!

You don't have to use the colours that we used - just use whatever you or your family have lying around. In this knit, we used around 25g of black, dark red and orange, and 10g of pale yellow, and 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                              b – Black      r – Red      o – Orange      y- Yellow

Brackets indicate stitches inside the brackets are repeated.

For example, p2b means purl 2 stitches in black, and (k1r, k1b) twice means knit 1 stitch in red, 1 stitch in black, and do this twice.

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

Row 1-2: Knit one row, purl one row

Row 3: k15b, k1r, k3o, k2r, k1o, k2r, k2o, k2r, k1o, k1r, k6o, k2r, k2o

Row 4: p2o, p1r, p1o, p2r, p1o, p1r, p4o, p3r, p3o, p7r, p15

Row 5: k15b, k2r, k1o, k1r, k1o, k2r, k1o, k3r, k1o, k1r, k6o, k2r, k4o

Row 6: p5o, p1r, p4o, p1r, p2o, p1r, p1o, p4r, p1o, p1r, p1o, p3r, p15b

Row 7: k15b, k7r, k2o, k2r, k3o, k1r, k1o, k1y, k3o, k1r, k1o, k1r, k2o

Row 8: p2o, p1r, p3o, p1r, p3o, p1y, p1o, p1r, p1o, p2r, p1o, p5r, p1o, p1r, p16b

Row 9: k16b, k3r, k2o, k2r, k2o, k1r, k1y, k1r, k1o, k1r, k1y, k2o, k2y, k4o, k1r

Row 10: p5o, p1y, p2r, p1o, p1y, p1o, p4r, p3o, p4r, p1o, p1r, p6b, (p1r, p1b) twice, p6b

Row 11: k6b, (k1r, k1b) twice, k6b, k3r, k1o, k2r, k2o, k1r, k2o, (k1y, k1r) twice, k1o, k2r, k3o, k1r, k2o

Row 12: p1o, p1r, p2o, p1r, p1o, p2y, (p1o, p1y) twice, p8o, p1r, p1o, p2r, p6b, p3r, p1b, p1r, p5b

Row 13: k6b, k3r, (k1b, k1r) 4 times, k1r, k3o, k2r, k3o, k1r, k1o, k1r, k1y, (k1r, k1o) twice, k1y, k2o, k1r, k2o

Row 14: p4o, p1r, p1o, p4y, p1r, p1y, p6o, p1r, p2o, p1r, p1o, p1b, p1r, p1b, p3o, p1b, p1o, p4r, p5b

Row 15: k6b, k2r, k1o, k1r, k1o, k1b, k1o, k4b, k1o, k3r, k1o, k4r, k5o, k1y, k3o, k1r, k4o

Row 16: p1r, p1o, p3r, p4o, p2r, p3o, p1r, p1o, p2r, p1o, p3r, p6b, p1o, p1r, p1o, p2r, p1b, p1r, p5b

Row 17: k6b, k5r, k1b, k1r, k5b, (k1r, k1o) 4 times, k2o, k2r, k3o, k1r, k3o, k1r, k1o, k1r

Row 18: p2o, (p1r, p1o) twice, p1o, p1r, p1o, p2r, p1o, p1r, p3o, p1r, p1o, p3r, p7b, p1r, p1b, p3r, p1b, p2r, p4b

Row 19: k6b, k5r, k1b, k1r, k6b, k1o, k2r, k1o, k3r, k3o, (k1r, k1o) 4 times, k2r, k1o

Row 20: p1r, p1o, p4r, p2o, p3r, p2o, p2r, p1o, p1r, p1o, p3r, p7b, p1r, p1b, p3r, p1b, p1r, p5b

Row 21: k6b, k5r, k9b, k1r, k1o, k2r, k1o, k1r, k1o, k4r, k1o, k7r, k1o

Row 22: p1o, p3r, p2o, p1r, p1y, p3r, p1o, p1r, p3o, p4r, p7b, (p1r, p1b) 3 times, p7b

Row 23: k7b, (k1r, k1b) twice, k1r, k3b, k1r, k5b, k2r, k1o, k1r, k3o, k2r, k3y, k2r, k4o, k1r

Row 24: p4r, p4o, p1y, p2r, p3o, p5r, p6b, (p1r, p1b) 5 times, p5b

Row 25: k7b, (k1r, k1b) 4 times, k1r, k6b, k1r, k1o, k1r, k3o, k4r, k2o, k2r, k2o, k1r, k1o

Row 26: (p2o, p1r) twice, p3o, p2r, p2o, p4r, p8b, (p1r, p1b) 4 times, p1r, p6b

Row 27: k9b, (k1r, k1b) 3 times, k1r, k8b, k3r, k2o, k2r, k8o, k1r

Row 28: p3o, p1r, p1o, p1r, p2o, p1r, p3o, p1r, p1o, p1r, p10b, (p1r, p1b) twice, p1r, p10b

Row 29: k11b, (k1r, k1b) twice, k1r, k10b, k3r, k2o, k2r, k2o, k1r, k2o, k1r, k1o

Row 30: (p1o, p1r) twice, p1o, p4r, (p1o, p1r) twice, p10b, (p1r, p1b) twice, p1r, p12b

Row 31: k15b, k2r, k16b, k4r, k1o, k1r, k3o, k1r, k1o, k1r

Row 32: p4o, p2r, p3o, p2r, p29b

Row 33: k30b, k3r, (k1o, k1r) twice, k3o

Row 34: p2o, p6r, p32b

Row 35: k34b, k5r, k1o

Row 36: p1o, p3r, p36b

Row 37: k39b, k1o

Row 38-40: Using black (or alternate) purl even rows, knit odd rows

Cast off.