

See also the patterns for molecule structure and atom colours available on particulart.org.uk.

We made our molecules with bog-standard acrylic wool, and the atoms stuffed with a slightly shredded half of a plastic charity collection bag. These are the sorts of materials that would be burnt in an Incinerator. But really, anything that is weatherproof will be suitable.

If you are new to knitting, some of the codes below may be a mystery. But the internet is full of marvels such as tutorials and knitting videos. It's how we learnt i-cord.

kfb knit into the front and back of the stitch

.. repeat stitches in between

k2tog knit two together

skpo slip stitch, knit next stitch, pass slip stitch over the knitted stitch

Atom

Wool Double knit Needles 3.75mm

Tension 26 stitches to 10cm

The atom will be approx 20 cm in circumference.

Pattern

Cast on 12 sts

r1 knit r2 purl

r3 kfb into each st (24 sts)

r4 purl all

r5 *k1, kfb* across row (36 sts)

r6 cast on 1 st, purl across row, cast on 1 st at end (38 sts) r7-r18 continue in stocking stitch for 12 rows starting with a knit row

r19 k2tog, *k1, skpo* (25 sts)

r20 purl

r21 k2tog, *skpo* to last 3 sts, k1, k2tog (13 sts)

r22 p1, *p3tog*

Cut yarn leaving a 20 cm tail.

Thread onto needle, thread through remaining stitches and pull tight.

Sew edges together, stuff atom, thread through casting on stitches and pull tight.

Knot tails together, thread onto needle and pass through atom, and cut so ends stay inside.

Bond

Wool Double knit Needles 3.75mm DPNs

Pattern - joining two atoms of the same colour

Cast on 4 sts, leaving a 20 cm tail Knit i-cord for 16 rows Cast off i-cord, leaving a 20 cm tail

Pattern - joining two different colour atoms

Cast on 4 sts, leaving a 20 cm tail
Knit i-cord for 8 rows
Knit 1 stitch i-cord, join the second colour and knit the rest of the row
Knit i-cord for 7 rows
Cast off i-cord, leaving a 20 cm tail

Knot the tails of the two colours at the join.

Thread each tail in turn onto a needle, pass through the cord of the same colour, cut so ends stay inside.

Work the knot inside the cord, and the stitches so they even out.

Thread each 20cm tail onto a needle and sew the bond onto the atom.

Pass remaining tail through atom, cut so ends stay inside.