

Meteor *Night*

Your kitchen-table kit for the October meteor showers. Watch them, log them, draw them, and make a card that glows like Orion.

Mark your calendar

Draconids Wed, Oct 8, right after dark. Look north.

Orionids Peak night Oct 21 into Oct 22. Best before sunrise.

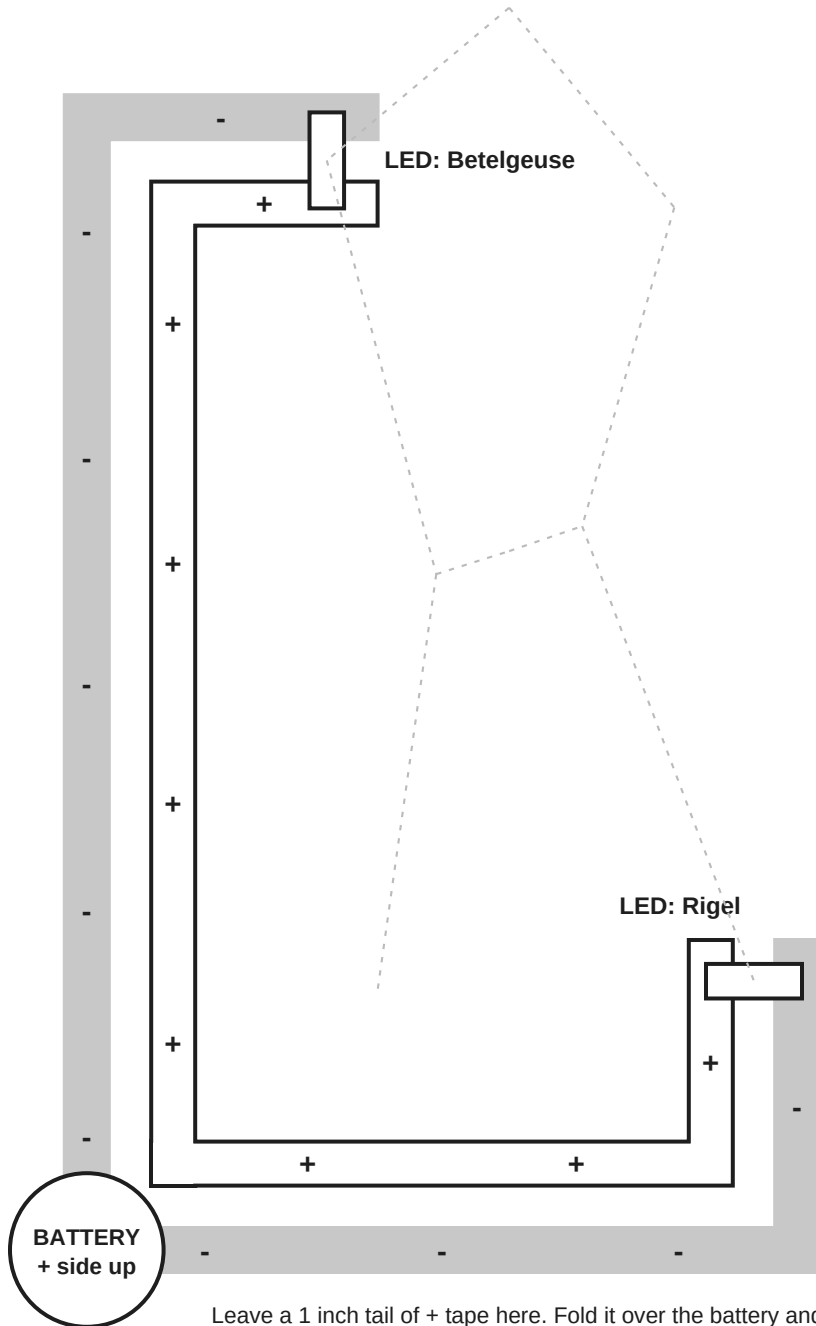
What's inside

2. Orion light-up card template
3. How to build it
4. Sky log for both showers
5. Draw your sky
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Grown-ups: coin batteries are dangerous if swallowed. Keep spares away from little kids and pets, and take the battery out when the card goes on the shelf.

Circuit side

Outlined lane: + tape Gray lane: - tape



Star side

Poke a hole through every dot. Big dots sit over the LEDs.



Build your Orion card

Two LEDs light up Orion's brightest stars: Betelgeuse, his shoulder, and Rigel, his foot. About 30 minutes.

You need

- The template on the page before this, printed on cardstock
- Copper tape, about 1/4 inch wide
- 2 LED stickers or 3mm LEDs
- 1 coin battery (CR2032) and a binder clip
- A pushpin, a piece of cardboard, scissors, and a grown-up nearby

1 Poke the stars

Set the star side on cardboard. Push the pin through every dot.

2 Lay the minus tape

Stick copper tape along the gray lanes. Press it flat with your fingernail. At corners, fold the tape instead of cutting it.

3 Lay the plus tape

Stick tape along the outlined lanes. Leave a 1 inch tail sticking off the start, near the battery. Plus and minus tape must never touch.

4 Add the LEDs

Place each LED in its box so it bridges both lanes. The longer leg, or the + side of a sticker, goes on the plus tape.

5 Add the battery

Set it in the circle on the minus tape, + side up. Fold the plus tail over the top of it.

6 Fold and clip

Fold the star side over the circuit side. Clip the battery corner with the binder clip. Glow!

7 Not glowing?

Flip the LED around. Press the tape down harder. Check that plus and minus are not touching anywhere.

Sky log

Make a tally mark for every meteor. Bundle them in fives.

Draconids

Oct 8, after dark, look north

Date and time
Where we watched
Weather and clouds
Tally
Brightest one (color, direction)
Who saw the most?

Orionids

Oct 21 into 22, before sunrise

Date and time
Where we watched
Weather and clouds
Tally
Brightest one (color, direction)
Who saw the most?

Draw your sky

Draw the stars you saw. Then draw the path of your best meteor.

horizon: draw trees, roofs, or hills below this line

W S E

Which direction was I facing? _____

My best meteor lasted about _____ seconds.

Wonder together

Halley's Comet comes back in 2061. How old will you be?

Why do the meteors all seem to start from one spot?

If you could name a constellation, what shape would it be?

Betelgeuse looks orange and Rigel looks blue. Why might stars be different colors?

Words to know

Meteoroid	A rock or speck of dust floating in space.
Meteor	The streak of light when a meteoroid burns up in our air.
Meteorite	A piece that makes it all the way to the ground.
Comet	An icy, dusty space snowball that leaves a trail of crumbs.
Radiant	The spot in the sky where a shower's meteors seem to start.
Constellation	A group of stars that makes a picture, like Orion.