

# TRANSPARENT SOLAR SYSTEM,

DISPLAYING THE PLANETS WITH THEIR ORBITS, AS KNOWN AT THE PRESENT DAY.

DERIVED FROM THE LATEST AND BEST AUTHORITIES.

THE DIAMETER OF THE SUN IS 883,000 MILES; AND ITS BULK FIVE HUNDRED TIMES GREATER THAN THE WHOLE OF THE PLANETS UNITED.

THE PLANETS ARE RETAINED IN THEIR ORBITS BY THE OPPOSING ACTIONS OF THE CENTRIFUGAL AND CENTRIPETAL FORCES.



THE SOLAR SYSTEM comprises the Sun, forty-three Primary Planets, nineteen Secondary Planets, (revolving round Primary ones) and an unknown number of Comets. The Planets move round the Sun in nearly one level or plane, corresponding to the centre of his body, and in

the direction from west to east. The subjoined table will show the names, distances, revolutions, &c. of the Planets, as known at the present time. The orbit of Neptune cannot be shown on the Diagram on account of its great distance from the Sun.

PRINCIPAL PLANETS, and their Mean Distance from the Sun in Millions of Miles.	Period of Revolution in Days.	Hourly Motion, Miles.	MINOR PLANETS, Date of Discovery, and Discoverer.	Period of Revn. Days.	MINO Date of I
MERCURY .....	37	88	Ceres, 1801, Piazzi .....	1,680	Hygeia, 18
VENUS .....	69	225	Pallas, 1802, Olbers .....	1,686	Parthenop
EARTH .....	95	365	Juno, 1804, Harding .....	1,592	Victoria, 18
MARS .....	145	687	Vesta, 1807, Olbers .....	1,326	Egeria, 18
JUPITER .....	496	4,332	Astrea, 1845, Hencke .....	1,511	Irene, 18
SATURN .....	909	10,759	Hebe, 1847, Hencke .....	1,380	Eunomia, 18
URANUS .....	1,828	30,687	Iris, 1847, Hind .....	1,346	Psyche, 18
NEPTUNE .....	2,862	60,126	Flora, 1847, Hind .....	1,193	Theris, 18
			Metis, 1848, Graham .....	1,347	Melpom

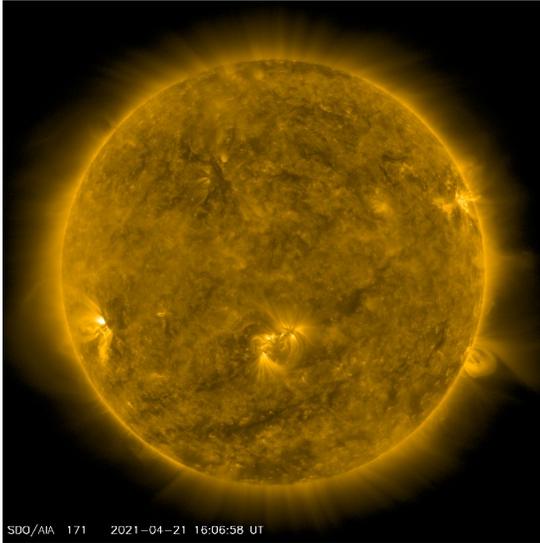
This is a beautiful picture of our solar system published by James Reynolds and drawn by John Emslie. You can see the Sun at the centre and the tracks of the planets where they orbit around it.

What is really special about this diagram is that it uses coloured tissue paper laid over cut card. The Sun and all the planets are translucent coloured paper. It's an educational diagram and when it was published in 1851, families could hold it in front of a candle and enjoy how the details glowed against the black background.

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# Create you own transparent artwork

## INSPIRATION



Courtesy of NASA/SDO and the AIA, EVE, and HMI science teams.

Discover how the Sun looks [today](#).  
Find out more about [our missions to study the Sun](#).  
NEVER LOOK DIRECTLY AT THE SUN. IT WILL DAMAGE YOUR EYES.



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A painting of a feature called a sunspot made 160 years ago by engineer, astronomer and artist, James Nasmyth. He observed the Sun through a telescope that he designed and built himself. On the left-hand side he has drawn the Earth to show how vast the sunspot is relative to our planet.

Discover the [Science Museum art collection](#).

Read a poem.

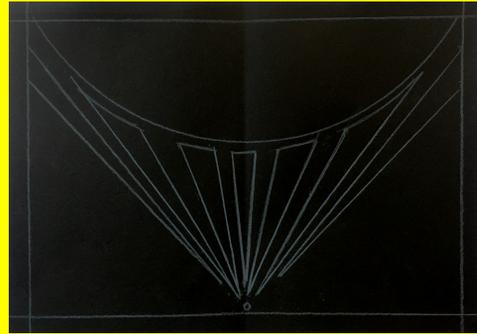
**The Juggler of Day**  
by Emily Dickinson

Blazing in gold and quenching in purple,  
Leaping like leopards to the sky,  
Then at the feet of the old horizon  
Laying her spotted face, to die;

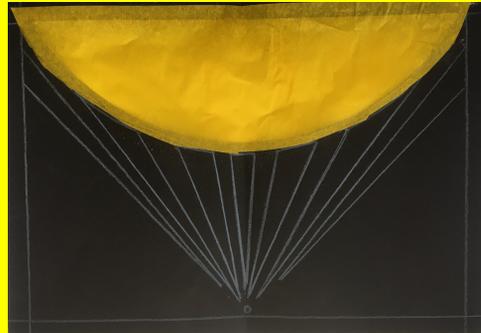
(first verse)

## INSTRUCTIONS

**Materials:** Sheet of card or strong paper, pen or pencil, coloured tissue paper, or make your own by colouring tracing paper with felt-tip, glue stick, scissors or craft knife for an adult.



1. Sketch your simple design on dark paper or card.



2. Cut out the first piece you'd like to make transparent and glue tissue paper in its place.



3. Repeat, cutting and gluing, until all your cutout pieces are filled.



4. Turn over your artwork, hold it up against the light and enjoy!

'Our Needs Hourly' by Geraldine Cox, tissue paper on paper.

'Draw the Sun'  
by [Geraldine Cox](#), [Dr Ravi Desai](#) and [Dr Katy Barrett](#).