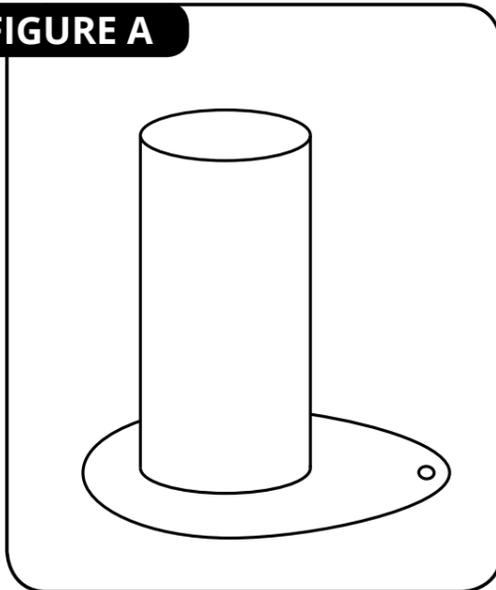
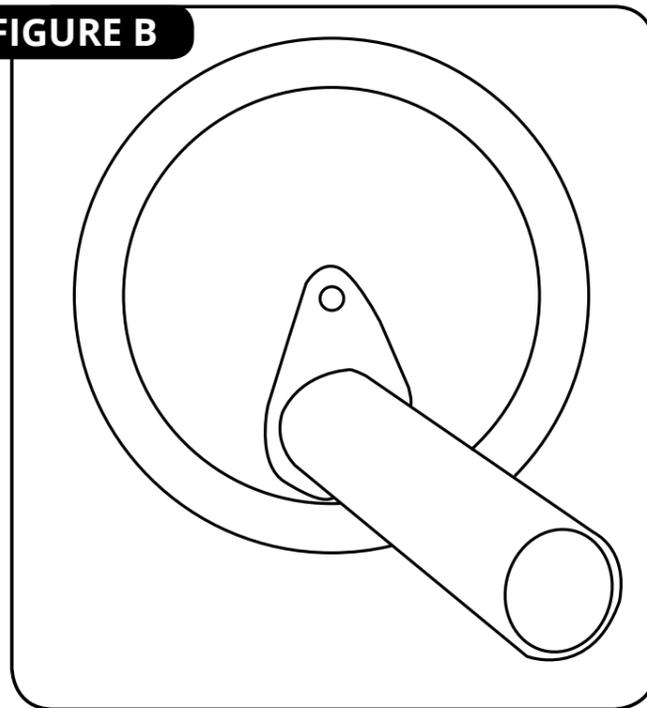


MORE IDEAS...

Collaborate with your group or class on the solar system. Each person or a small group could research further a certain constellation and report findings to the group.



Use additional craft trims to embellish your constellation viewer.

FIGURE A**FIGURE B**

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MAKING IT EASY
to Help People Play and Learn



Project Ideas • Cross Curricular
 Links • Activity Sheets

Stellar Constellation Kit (Pk/12)

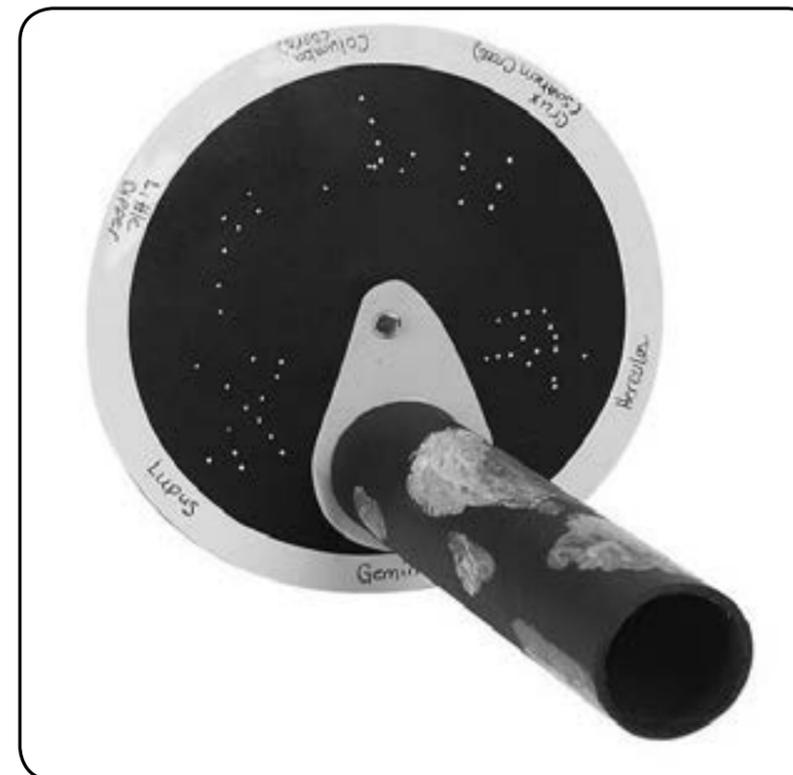
PLEASE READ ALL INSTRUCTIONS BEFORE STARTING

YOUR KIT CONTAINS:

- Tubes
- Constellation Template
- Black Paper
- Paper Fasteners
- Glue
- Paint
- Brushes
- Cardstock Pieces
- Tablecloth

YOU WILL NEED:

- Straight Pins or Thumbtacks

AGE GROUP: 8 and up**PROJECT TIME: 45 minutes****INSTRUCTIONS:**

1. Select one egg shaped card board ring and one tube. Apply glue to the end of the tube. Glue the ring to the end of the tube. See Fig A.
2. Using your imagination, decorate your tube with paint.
3. On the circular chipboard frame, place a small amount of glue and attach the black paper to the circle. See Fig B.
4. Place the constellation template on the black disc. With a pin, poke through each white dot marked on the template. Label each constellation as you go, on the frame of the disc.
5. Connect the constellation wheel to the egg shape end of the tube with a paper fastener through holes.
6. Ready, set, play!

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CONSTELLATIONS EXAMPLES

1. Columba (Col) is the dove. This is a small constellation in the Southern Hemisphere and is a member of the “Heavenly Waters” constellation family. The Alpha Col (the brightest star in the constellation) is called Phaet. The second brightest star is called Wezn.
2. Crux is the Southern Cross. It is the constellation used on the Australian Flag. The Alpha Cru is the double star at the base of the cross. Crux is in the Milky Way and is surrounded by the constellation Centaurus on three sides.
3. Gemini, also known as the twins, is one of the constellations of the zodiac. The brightest stars in it are Castor and Pollux.
4. Lupus (the wolf) is a constellation in the southern hemisphere.
5. Hercules is in the northern hemisphere and is the fifth largest in the sky. The 4 stars in the middle form a trapezoid
6. Ursa minor- the little dipper, formally called the “little bear” or just “little” for short.

CONSTELLATIONS OF THE NORTHERN HEMISPHERE

Andromeda, the princess
Antlia, the pump
Aquila, the eagle
Auriga, the chariot driver
Bootes, the herdsman
Caelum, the chisel
Camelopardalis, the giraffe
Canes Venatici, the hunting dogs
Canis Major, the big dog
Canis Minor, the little dog
Casiopeia, the queen
Cepheus, the king
Cetus, the whale
Columba, the dove
Corona Borealis, the northern crown
Corvus, the crow
Cygnus, the swan
Delphinus, the dolphin
Draco, the dragon
Equuleus, the little horse
Fornax, the furnace
Hercules, the hero
Horologium, the clock
Hydra, the water snake
Lacerta, the lizard
Leo Minor, the little lion
Lupus, the wolf
Lynx, the lynx
Lyra, the harp
Microscopium, the microscope
Monoceros, the unicorn
Orion, the hunter
Pegasus, the flying horse
Pyxis, the ship’s compass
Sagitta, the arrow
Scutum, the shield
Ursa Major, the big bear
Ursa Minor, the little bear
Vulpecula, the little fox

SCIENCE

The constellations are a group of stars that are connected together to form a figure or picture. The term is also traditionally and less formally used to mean any group of stars visibly related to each other. Some well known constellations are Orion, the hunter, The Big Dipper, Leo, the lion, Scorpius, a scorpion and Crux, the Southern Cross.

The astronomical definition of constellation is different. A group of stars that can be connected to form a figure or picture is called an asterism. An example of an asterism is the Big Dipper.

The constellation is an area on the sky, and there are 88 official areas or constellations with exact boundaries, so that every part of the sky belongs to one of these constellations. These are mostly based on the constellations of the ancient Greek tradition, passed down through the ages, and it contains the signs of the Zodiac. These constellation boundaries were drawn, consisting of vertical and horizontal lines, by Eugene Delporte in 1930.

The life of a star- A star’s lifetime is the period of time when it actively has energy, which generates light. Stars do not remain constant. They go through stages that last billions of years. Stars take hydrogen in their cores and turn it into energy by nuclear fusion.

SOCIAL STUDIES

Some star patterns are not recognized as true asterism, such as the Big Dipper, little dipper, or the Plough in the United Kingdom. Different cultures have different constellations.

There are many families of constellations that are close to one another. The Zodiac family consists of 12 constellations. The Ursa major family consists of 10 constellations. In the Inca Civilization, various dark areas in the sky were identified as a constellation. For example, “Emu in the sky” is an area lacking in stars, therefore “dark”, in the shape of an Emu. These are referred to as “dark cloud constellations” or “ dark nebulae”
The Chinese culture constellations are different, and were developed in ancient times and the night sky was divided in different ways, but was similar to the Western civilizations. The Chinese had 28 “Xiu” or mansions.

The Indian culture uses 12 rashis or constellations, and correspond to the 12 in western culture. However, they are then divided into 27 Nakshatras or lunar houses. All of the constellations have been given Latin names, because they were based on ancient Mediterranean cultures. These names are demonstrated widely in Greek Mythology.

Now, the constellations have been given a 3 letter abbreviation by the International Astronomical Union, for example Aries becomes Ari. Pisces becomes Psc.

Why did people in ancient times make constellations? They picked patterns in the sky in order to follow the motion of the stars and to measure time based on that movement, and to find their way when traveling. Sailors would use the North star to keep their ships sailing in the right direction.

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