Astronomy In Your Hands

Activities - The Three Strands

Astronomy In Your Hands is devoted to hands-on astronomy activities for classroom and home. Our activities are organised into three strands. Each strand takes you step-by-step through a different aspect of hands-on astronomy. Strands 2 and 3 are still in preparation. Publication dates are uncertain - the completion of these strands is being funded by subscriptions.

Strand One

Starry Starry Night

Stargazing for Beginners

This strand enables teachers with no scientific background to teach a course in introductory stargazing during the day, even though no stars are visible. It is also an excellent introduction to stargazing for anyone with a beginner's interest in this subject.

The first five activities have been developed with ages 9 to 11 in mind. The next five activities are progressively more challenging and are intended for an older age group. However, appropriate parts of these activities can be used with students of all ages. With a group of five-year-olds you may chose to focus on just recognising the Big Dipper or the Southern Cross, while a group of adults will eagerly devour all nine activities.

1. **Landmarks**
   Finding directions from local landmarks.
2. **The Stars as a Compass**
   Finding north and south by the stars.
3. **Make a Star Wheel**
   English-only or bilingual (Māori/English)
4. **Chasing the Stars**
   Finding constellations on a star wheel and a simulated sky.
5. **Under the Milky Way**
   Your first night out stargazing
6. **Planet Hit List**
   Seeing all the planets
7. **The Shifting Stars**
   Make a 3-D model of the sky and use it to understand the sky's movement

Binocular Bonanza

8. **Jewels of the Sky**
   A quick tour of some of the most spectacular nebulae and clusters visible in binoculars
9. **Roller Coaster Stars**
   Track the cycle of a variable star using our specially designed charts

Supporting Resources

Star Story Book
Star stories and star pictures

Strand Two

I'll Follow the Sun

Daytime Astronomy

Yes, astronomy can be done during the day. Studying the sun and the moon are both possible during the main part of the day.

1. **Measuring the Sky**
   Make a straw quadrant and use it to measure the position of the sun.
2. **The Rolling Sun**
   Make a 3D sun path using your straw quadrant.
3. **Sundial City**
   Choose from among our unique designs, build a sundial and test it. High interest sundials that dangle, sit on your desk, or get painted on the playground. Cut from a sheet of cardboard or cast in bronze they look impressive and tell the time accurately. (Four major designs to be published.)

Binocular Bonanza -

4. **Zits on the Sun**
   The safe way to see and track sunspots.
5. **Moon Mornings**
   Go crater spotting in the daytime.

Activities – Strand Three

Flash Bang Wallop!

Solar System Simulations

There are plenty of astronomy activities you can do at home or in the classroom, but travelling to other planets is not one of them. We have devised some activities that let you create astronomical models from everyday materials.

1. **Eat the Solar System**
   Create your own edible scale model of the solar system 1km/1,000 yards across.
2. **Balloon Globe**
   Make your own world globe from a balloon and use it to model the seasons and eclipses using the sun as a light source.
3. **Collisions in the Kitchen**
   Make a comet, a crater, a Lunar lava lake, and a volcano. Exciting cookery that explodes, splashes, hisses and pops while teaching about the solar system.