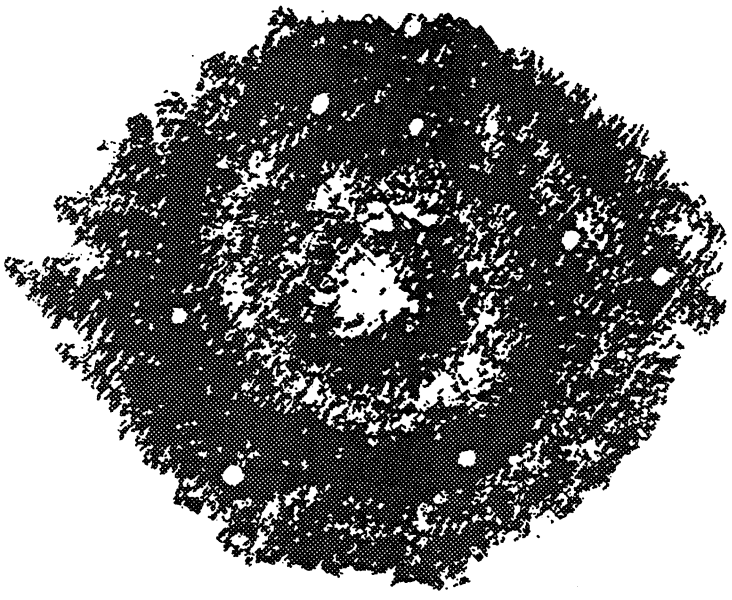
Contents

A Word to the Teacher

ASTRONOMY

Astronomy is one of the oldest true sciences. From ancient times people have studied the heavenly bodies and their movements in space. In early days, people believed that planet Earth was the centre of the universe, that the Earth was flat and that the sky was a huge dome above. Ancient peoples used the celestial bodies to tell them the best time to begin a battle, where to build a pyramid, when to plant seeds for the best crops and how to reach a distant land.

Today, the rapid development of technology has given us a new understanding of Earth, our solar system and the universe. Space travel has allowed humanity to study Earth from space and to move beyond our planet to explore the nature of the universe. Yet many questions about the universe remain unanswered. In the future, astronomers may find new dimensions of outer space, intelligent life on other planets or the answers to age-old questions about the beginnings of the universe and our planet, Earth.



Getting Started

1. Select a topic as an extension of a regular subject (particularly when your class is ready for more), or select a topic to pursue that is of particular interest and may not be a part of the curriculum. To zero in on special interests, administer an interest survey to each student.

2. Copy the unit for each student. When using these units for the entire class, you may want to expand or delete activities for individual students.

3. Set up a centre in the classroom that encourages exploration in the subject field. You'll want to include a variety of materials. Be creative—the purpose of the centre is to excite the students, so begin with lots of hands-on materials. Allow for ample browsing time and encourage students to investigate and become absorbed.

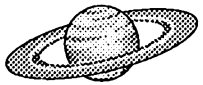
4. Go over each activity in the unit with the students, discussing and answering any questions. You, as teacher, are the key to successful implementation. Because most children are already well versed in the 'One Right Answer' game, they will need encouragement to branch out into many of the open-ended activities in the packets.

5. Set the stage. Plan meetings and provide resources as needed. Then, get out of the way and let your students learn.

6. Give as much time as each student needs to complete each activity in the unit. The entire unit might take from five to ten weeks or longer.

7. As each activity is completed and evaluated, initial the activity near each number. You will want to evaluate on the basis of the response that is appropriate for each individual student.

8. When a student shows extreme interest in the topic, the completion of this unit might only be the beginning. This student may be ready for further study and research and may need only resources, guidance and freedom to pursue his or her well-planned project.



1. SETTING THE STAGE

Listen to one of the space music selections or some quiet music. Close your eyes and imagine that you are in outer space. See yourself in a spaceship that protects you from the freezing cold and airless space. Through the spaceship window you can see planet Earth as a beautiful blue pearl suspended in space.

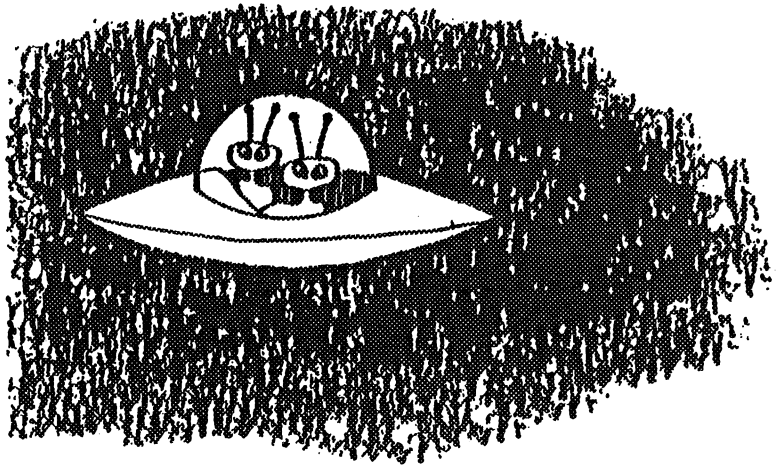
Take a journey in your mind through our galaxy. Imagine seeing other planets and their moons, stars and our sun. Talk about your experience with a friend.

- Draw a picture of one of your images.

2. GO TO THE LIBRARY

Find out about:

the planets
our sun
constellations
nebulae
orbit in space
the expanding universe
space shuttles
space stations
the Apollo moon landing



Find at least three amazing facts or ideas about astronomy.

- Share these facts with the class or display them on a bulletin board.