



Shape up with Geometry (1 & 2)

Focus Areas

Language Arts, Math, Science, Social Studies, Technology, Visual Arts

Time Needed for Activity

60 to 120 minutes

Software

Photo Kit Jr.
Kid Pix Deluxe 4

System Requirements

Macintosh

Mac OS 8.6-9.2.2, OS X.2 or later
128 MB RAM
600 MB for installation
800 x 600, thousands of colors
4x CD-ROM

Windows

Win 98, SE, 2000, ME, XP
300 MHz or faster
128 MB RAM
600 MB for installation
800 x 600, thousands of colors
4x CD-ROM

Overall Objective

Children will work cooperatively in groups using software to create a multimedia presentation that showcases their ability to recognize, describe, name, draw, and extend space shapes; and demonstrate knowledge and skills in the use of computers and digital cameras.

Activity Description

Children will need access to a Space Shape Kit or other three-dimensional shapes that include squares, cylinders, cones, spheres, pyramids, rectangles, and cubes. Children should have prior experience using a computer and digital camera; downloading pictures from the camera to the computer; and transferring the pictures into a program, such as Photo Kit Jr. or Kid Pix Deluxe 4. Familiarity with space shapes will be helpful, but not necessary.

Dividing children into small groups of 4 to 6 works best for this activity. Each group of children can examine the different space shapes.

Provide a digital camera for the children and ask them to explore the school and take pictures of three-dimensional shapes they discover. Each child should take 2 or 3 pictures. They may take pictures of the shapes from the kit as well. Encourage them to help each other identify shapes. Additionally, make certain a picture is taken of the group creating shapes with their bodies or fingers or holding up the shapes from the kits. This will also be used as they create a book of space shapes.

After all children in the group have taken pictures, they will download the pictures and transfer them into the photo management application. The children should create a new album or folder, name it, and drag the pictures into it. They can then import the photos from this folder into Photo Kit Jr. for use in their book.

Supporting Software

BuildAbility

Digital Photo Activity Kit

I Spy Junior

MediaBlender

Millie's Math House

Notes

Ask each group to open Photo Kit Jr. and go into the Book Center. The children will then choose a book color, border graphic, and title for their book. They will determine the order of the pictures. Children can also add text, such as definitions related to the properties of each shape, to each page. Children can explain why their chosen object is a particular shape. When the books are completed, a small version of the book can be printed for each group member, along with a large version for the classroom library.

As an extension of this activity, children can use Kid Pix Deluxe 4 to experiment with drawing three dimensional shapes. After completing those, see if they can use the stickers, or stamps to find and identify more geometric shapes. They could drag the sticker or stamp pictures onto the project area and identify the shape by typing in the name in a text box.

Materials needed:

Space Shape Kit, or other examples of several three-dimensional shapes; square, cylinder, cone, sphere, pyramid, rectangle, and cube.

Learning Standards

Children will:

Work cooperatively with peers.

Math: Problem Solving

Science: Science in Personal and Social Perspectives

Social Studies: Culture; People, Places and Environment

Technology: Digital Citizenship

Use a variety of media and technology resources.

Language Arts: Communication Skills, Communication Strategies

Technology: Creativity and Innovation; Communication and Collaboration; Technology Operations and Concepts

Recognize, describe, name, draw, and extend three dimensional shapes.

Language Arts: Communication Strategies

Math: Geometry

Science: Physical Science; Science and Technology

Technology: Creativity and Innovation; Technology Operations and Concepts

Visual Arts: Using Knowledge of Structures and Functions, Making Connections Between Visual Arts and Other Disciplines

Notes

Additional Activities

- Discover Shapes in Nature. Our world is filled with many different shapes. Take your digital camera outside and take pictures of shapes in nature and in the city. How many shapes can you find? Can you find symmetry in nature? Create a PowerPoint presentation sharing your shapes. Create an online e-pal activity sharing photographs with another class over the Internet.

Resources

Books

- Greene, R. (1997). *When a line bends...A shape begins*. New York: Houghton.
- Hoban, T. (1986). *Shapes, shapes, shapes*. New York: Greenwillow Books.
- Micklethwait, L. (2004). *I spy shapes in art*. New York: Greenwillow Books.

Web sites for teachers

- <http://www.42explore.com/geomet.htm>
- <http://www.glc.k12.ga.us/BuilderV03/LPTools/LPShared/lpdisplay.asp?LPID=14835>
- <http://www.mrsjonesroom.com/teachers/worksheets.html#math>

Web sites for children and families

- http://www.sanford-artedventures.com/study/g_shape.html
- <http://www.dupagechildrensmuseum.org/aunty/>