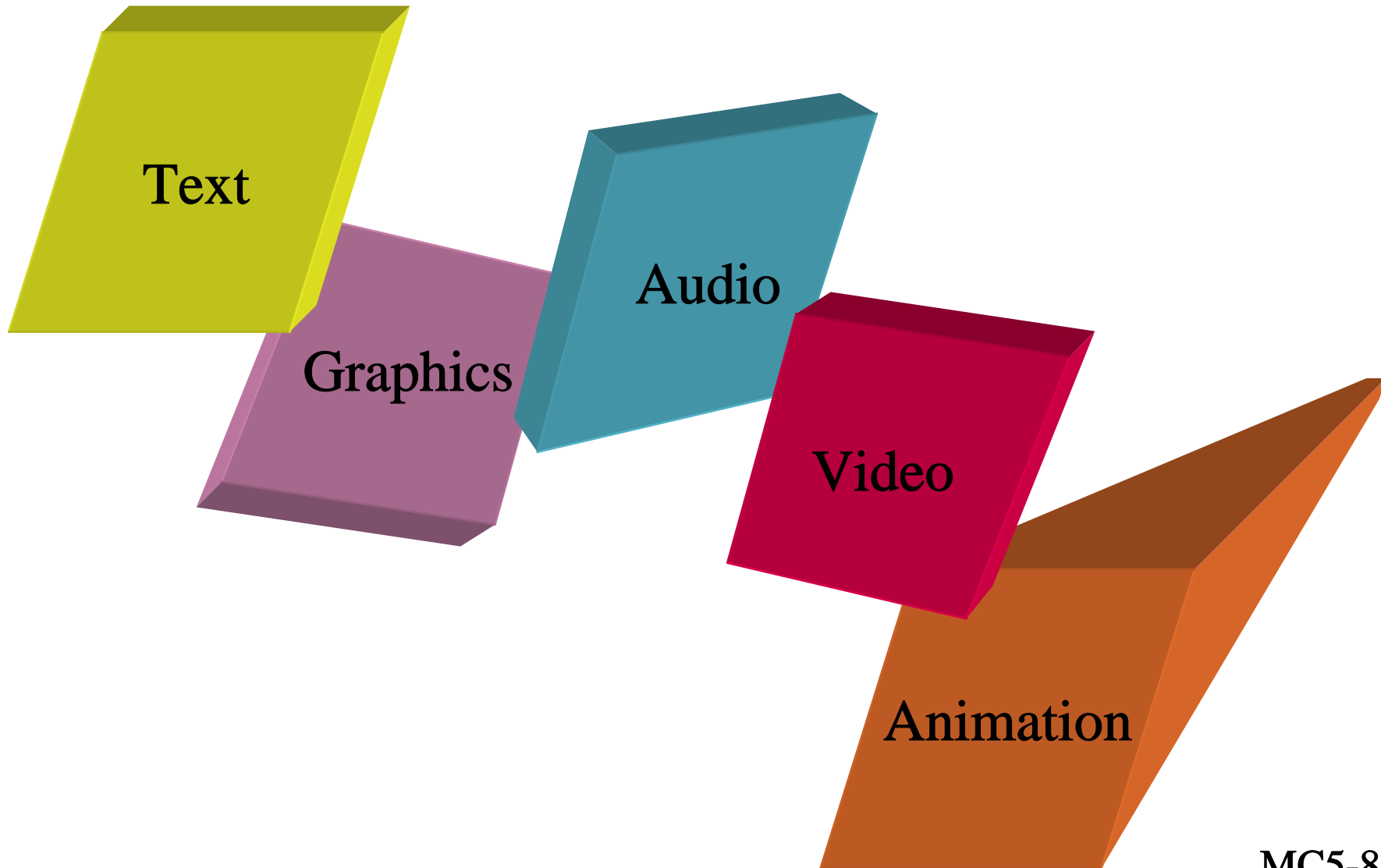


Technology: Media Categories



Animation

A *path animation* involves moving an object on a screen that has a constant background. For example, an airplane may fly across the page or a ball may bounce through a scene. Some programs include features that can easily create path animations. For example, in HyperStudio there is a New Button Action, called Animator, that allows you to select a graphic or a portion of the screen and define an animation sequence.

To move an object across the screen using HyperStudio, you would follow these steps:

1. Create a button on the screen. For the Button Action, select “New Button Actions: Animator.”
2. Select the car (or whatever portion of the screen you want to animate).
3. Click the mouse and hold it down as you move the car to define the path.
4. Release the mouse when you reach the end of the path.
5. When you release the mouse, the Animator dialog box will appear and allow you to select additional mouse options for your animation.

When a student clicks on the button, the car will animate across the predefined path, and the background will stay the same.

Path animation is a great way to move a single object; however, more sophisticated sequences may involve *frame animations*. With frame animation, several objects can move at the same time, the background can change, or the object itself can change (*morph*) into another object. With frame animation, there is a different screen for each step (*frame*) in the animation.

Movie animators create their effects by drawing many images with very slight differences between the images. When the images are played in rapid sequence (usually about 15 frames per second), they blend together and we see the illusion of motion. Likewise, to create frame animations on a computer you must draw several frames and play them in rapid sequence. HyperStudio includes a button action called “Play Frame Animation” that allows students to play the animation frames.

GIF animations are common frame-based formats that are used on Web pages. To create a GIF animation, you can use almost any graphics program to produce a series of still images that have slight alterations from one image to the next. Using specially designed software tools, you can set the play time so that each image will display a split second before the next one appears.

The following guidelines can help you and your students determine the appropriate use of animations.

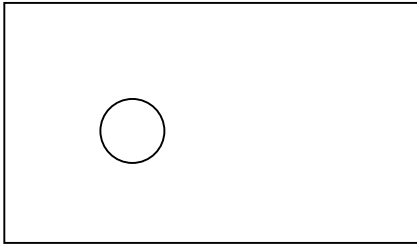
- Use animations to illustrate an abstract concept, such as erosion on a river.
- Keep the animation sequences short, or allow the user an option to interrupt and proceed with the program.
- Test the animations on various computers to ensure that the speed is appropriate.
- Use path animations to move one or two objects on a screen.

- Use frame animation for more complex sequences involving multiple changes.
- Do not include animations that distract from the content
- To keep animation files small, limit the number of colors and the number of frames per second.

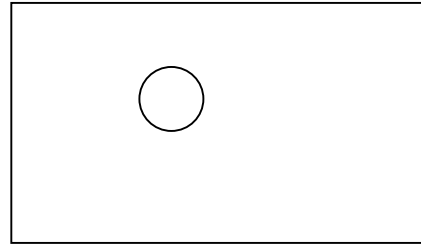
Animation Simulation

Using PowerPoint, simulate animation using six slides. In Slide 1, draw a circle (a ball to be thrown), then copy and paste it into the second slide. In Slide 2, move it over to the right and up a bit. Repeat the process with Slide 3 and Slide 4, but with Slide 4, move the circle to the right and down. Continue the right-down movement for Slides 5 and 6. Voila -- you have animation! Run your slideshow, clicking quickly from one slide to the next. See how your circle, or your thrown ball, moves from left to right and up and down.

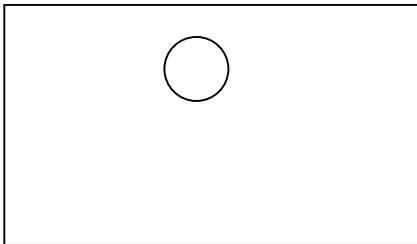
Slide 1



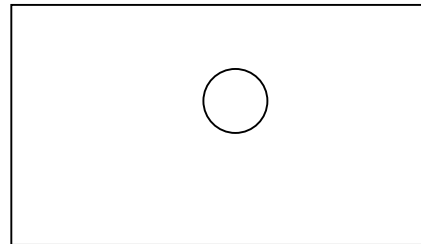
Slide 2



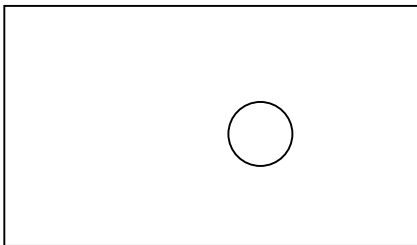
Slide 3



Slide 4



Slide 5



Slide 6

