



Gymnázium, Brno, Slovanské nám. 7

# WORKBOOK

<http://agb.gymnaslo.cz>



**Subject: Computer science**

**Student:** .....

**School year:** ...../.....

**Topic: Computer graphics – overview**

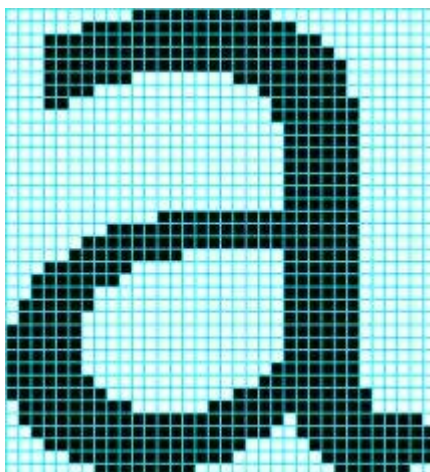
Computer graphics are graphics created using computers and, more generally, the representation and manipulation of image data by a computer with help from specialized software and hardware.

### Pixel art

Pixel art is a form of digital art, created through the use of raster graphics software, where images are edited on the pixel level. Graphics in most old (or relatively limited) computer and video games, graphing calculator games, and many mobile phone games are mostly pixel art.



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ



Graphics file formats - raster: .bmp, .gif, .png, .tiff, .jpg, .jpeg

### Vector graphics

Vector graphics formats are complementary to raster graphics, which is the representation of images as an array of pixels, as it is typically used for the representation of photographic images. Vector graphics consists in encoding information about shapes and colors that comprise the image, which can allow for more flexibility in rendering. There are instances when working with vector tools and formats is best practice, and instances when working with raster tools and formats is best practice. There are times when both formats come together. An understanding of the advantages and limitations of each technology and the relationship between them is most likely to result in efficient and effective use of tools.



Graphics file formats - vector: .cdr, .ai, .svg, .zmf



### Three-dimensional

3D computer graphics in contrast to 2D computer graphics are graphics that use a three-dimensional representation of geometric data that is stored in the computer for the purposes of performing calculations and rendering 2D images. Such images may be for later display or for real-time viewing.



### Computer animation

is the art of creating moving images via the use of computers. It is a subfield of computer graphics and animation.

