

# Create a Cartoon

That MOVES

Using Free\* Software



# Knowledge

An animated cartoon can be created and displayed on a computer by using a special type of file and a program (or App) that recognises the animation file.

The following list are some of the more common motion picture file types visit <https://webneel.com/different-types-of-animation-styles> for an introduction:

- **GIF** - Actually GIF89a for animation. Ideal for web pages. GIF files support transparency and have lossless compression so that image quality is not lost when the file is compressed. GIFs are commonly used for animations on webpages but have a limited colour palette of 256 bits.
- **SWF** - Shockwave files can be created using Adobe Flash and are often used for online applications such as on 'YouTube'. They are un-editable once they have been produced but the files are already compressed so they have quite a small file size.
- **MOV** - The MOV format is used Apple's QuickTime multimedia software, they are quite a simple file type with no special features. They support graphics, video and audio.
- **MP4** - MP4s are mainly used by Apple software as a replacement for the aging MOV format, again they can contain graphics, video and audio. A large range of different hardware and software such as iTunes, Xbox 360 and PlayStation 3.
- **WMV** - WMV files are a common format for animation and video created by Microsoft software such as Windows Movie Maker. These files can contain graphics, audio and video and are supported by almost all Microsoft software. A High Definition variant of the format is also available.



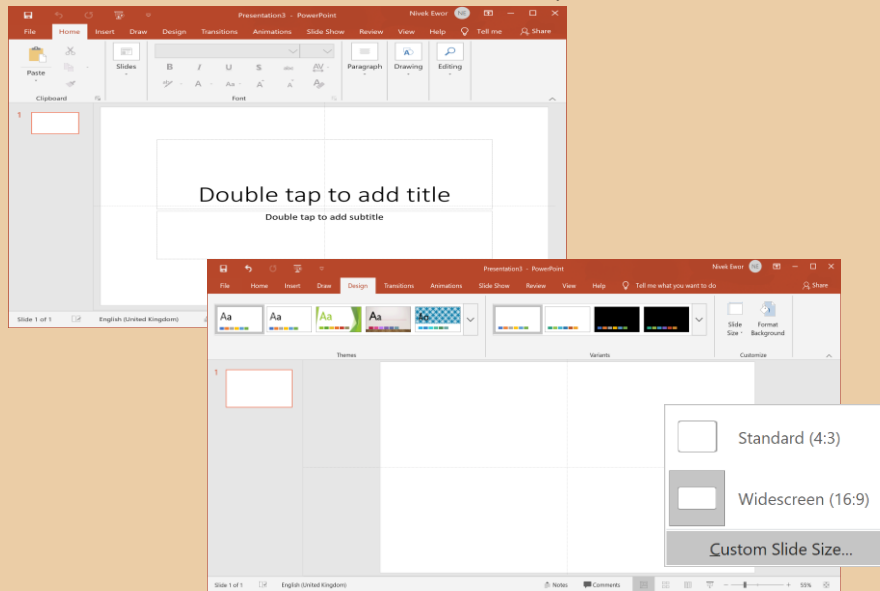
# Procedures

To create a moving picture you will require a number of individual pictures that can be 'stuck' together in a movie file. For Example :



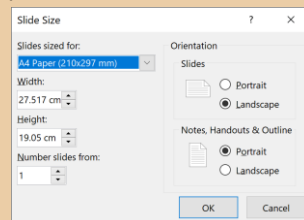
Step 1:

- Open **PowerPoint** Select 'BLANK Presentation'
- Cancel Design Template
  - Type [Ctrl]+[A] and press [Delete] to remove the 'Double Tap to add ...'



- Select the 'DESIGN' Tab, and click on 'Slide Size' - then 'Custom Slide Size' to change the size to **A4\*\***

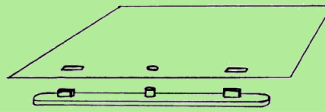
**\*\* The application is designed to fit the screen, not a page, thus if you want to print your creation set the size to A4**



# Knowledge

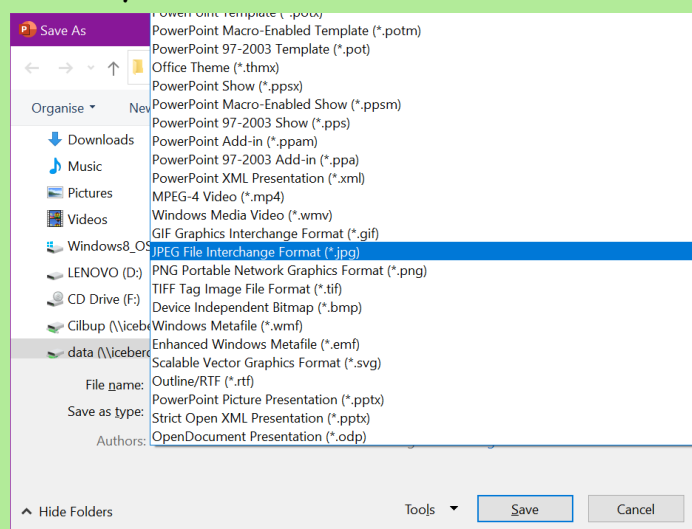
One of the biggest headaches in trying to create an animation from a number of separate images is their 'registration' - Each separate image has to correctly align with the proceeding image otherwise the resulting animation will become very jerky.

Professional animators use a peg board on a light table to position their sheets of drawing paper (made with special peg holes in it).



Although any 'drawing' program will work, many will "automatically" adjust their output size to match the screen / printer. Thus trying to amalgamate several images together becomes much harder than expected.

The use of a Presentation software program, like PowerPoint solves this problem as the finished presentation can be 'SAVEd AS' as a set of image files\*, each exactly the same size. (Export in PowerPoint 2019, creates a GIF89a)



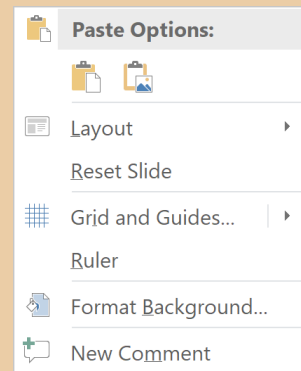
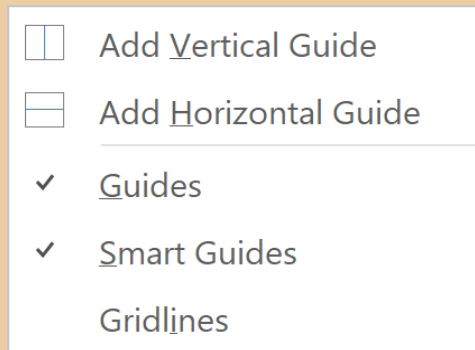
**\*NB: The file type GIF shown in the export output list is not the animated graphic type GIF87a, just a set of image files**

# Procedures

To make sure the images you position on each page of the PowerPoint presentation are correctly aligned you need to enable 'GUIDES'

Step 2:

- a. Right Mouse click
- b. Click on Grid and Guides ...

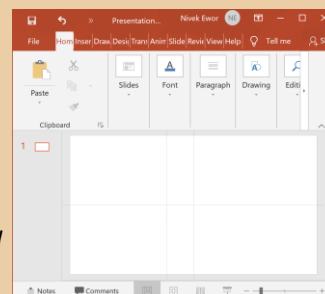
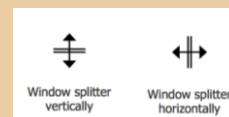
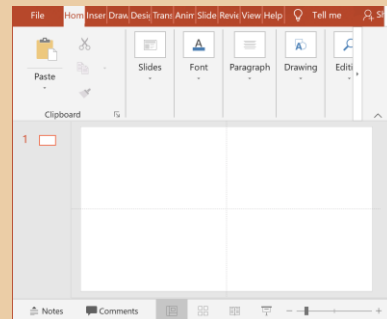


- c. Make sure that GUIDES is Ticked

Step 3: You will now have a

fine dotted crosshair  
GUIDE line on your slide

- a. Move the mouse to the outside of the slide
- b. Position it on a GUIDE
- c. The mouse pointer will change to a 'Window Splitter'
- d. Hold down the Right mouse button and 'pull'
- e. Another GUIDE line will appear.  
You can repeat as many times as you want

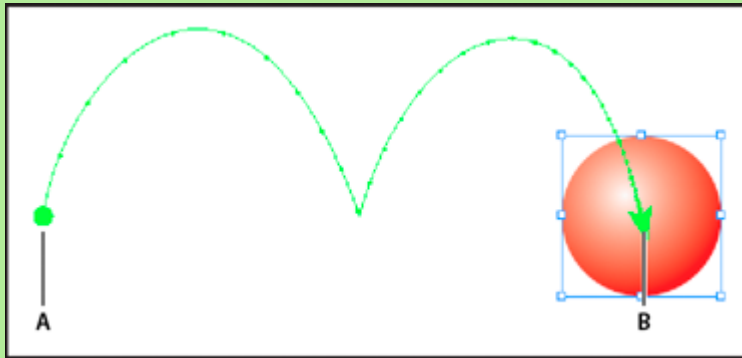


*NB: Focus: Left click once on the place you want 'in focus' so the software knows what you want to do. PowerPoint is context sensitive - the properties depend upon what is in focus.*

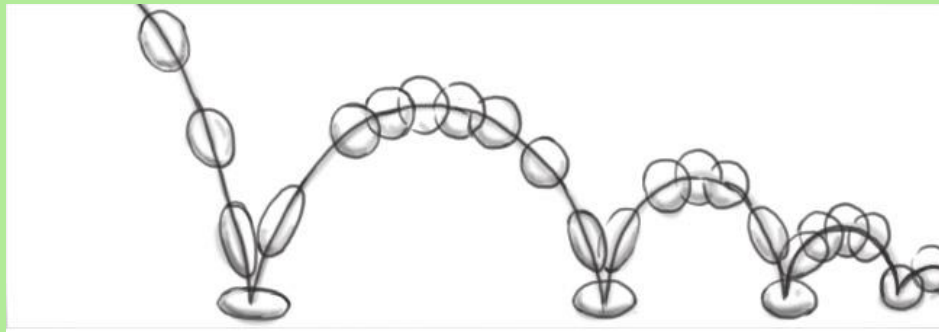
# Knowledge

For an animation to be successful, planning is imperative. Not only does each slide have to depict movement but the direction / course of that movement needs to be prepared.

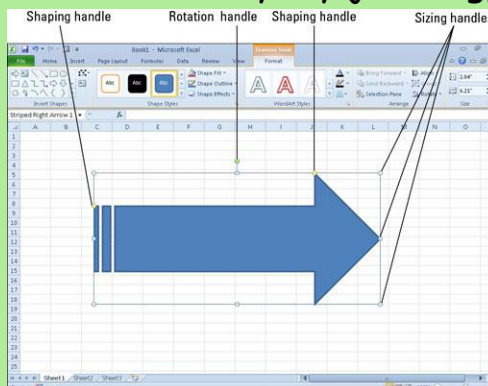
**NB: Think about looping your cartoon, so the last frame is the one before the first frame.**



In a cartoon universe, objects also possess 'SQUASH' and 'STRETCH' distortion, which will greatly improve the appearance of movement.

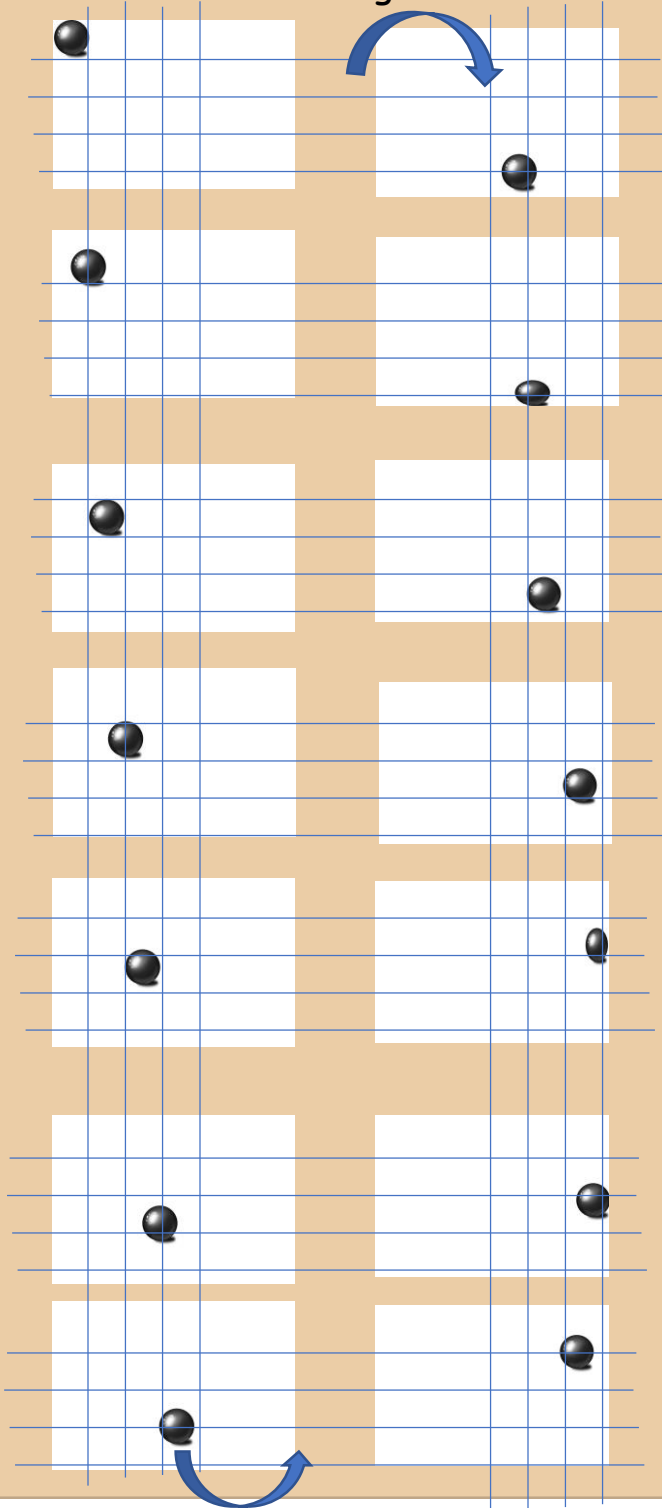


Fortunately the ability to 'adjust' the shape of an object within PowerPoint is easy, by just tugging on the objects handles



# Procedures

Using the *GUIDES* you can position your objects on each slide in a slightly different position, allowing the 'film' to run showing movement.



Note how the ball is squashed at the bottom of the stroke

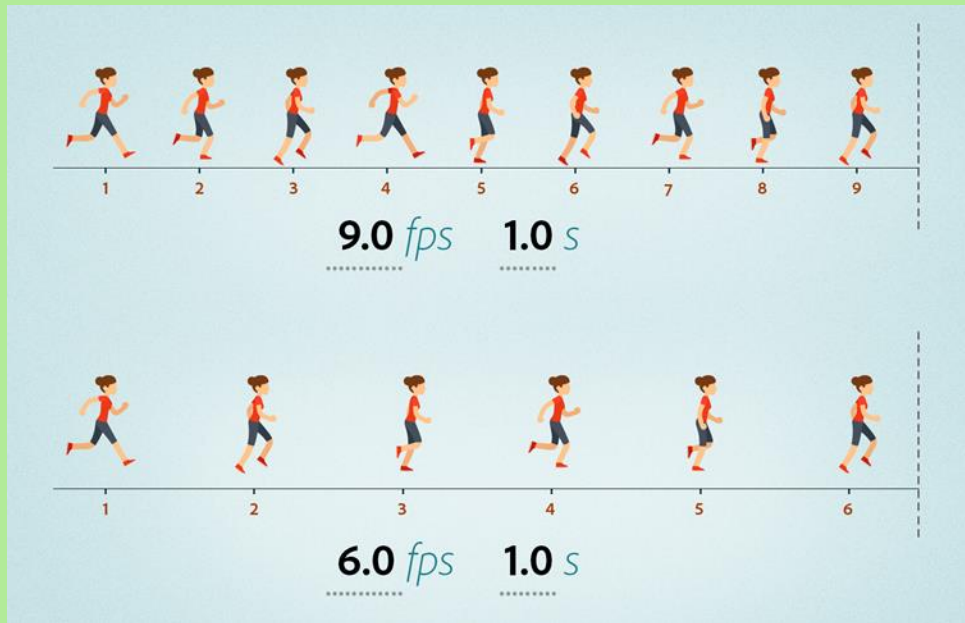
And again against the wall

NOTE: the blue lines represent the guide lines on the slide.

# Knowledge

Now for the BAD news .....

The average cartoon runs at 25 frames per second.  
So you have a lot of work to do.



The good news is that Frames 1 & 4, 3 & 6, 5 & 8 and 2 & 7 are almost exactly the same, only the legs are reversed.



So some creative art is needed.



# Procedures

STEP 5: Now just create a series of separate slides that depict motion:



1



2



3



4



5



6



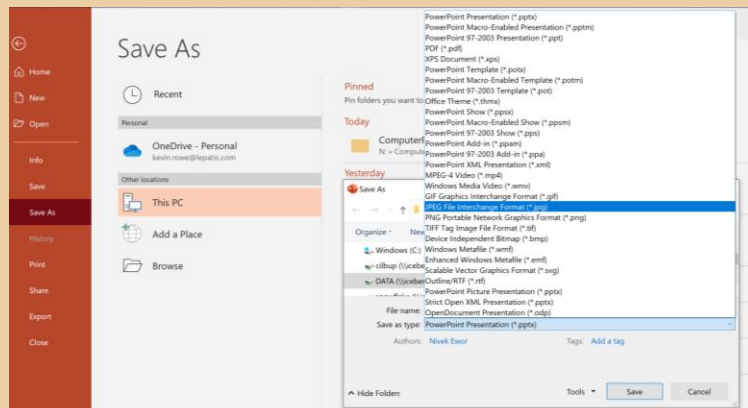
7



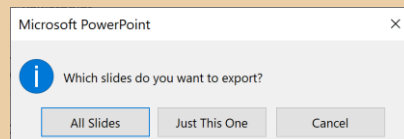
8

STEP 6: Export these files as JPG's

a. File : Save As : JPG : Save



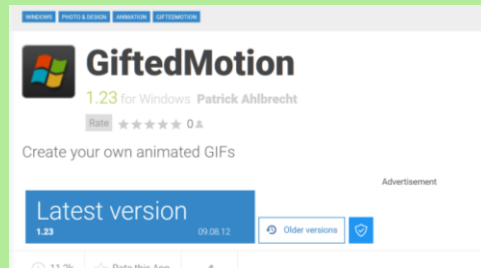
b. All Slides



# Knowledge

When PowerPoint exports files as images (i.e. JPG's) it saves them in a folder and they are labelled 'Slide1, Slide2, Slide3 ... etc).

We now need a special Animated GIF editor. There are many available, but GiftedMotion worked for me.



Visit: <https://giftedmotion.en.uptodown.com/windows>

GiftedMotion is a Java application that allows you to easily create animated GIFs by using your own pictures.

It supports PNG, GIF, JPEG and BMP files as source files, although we recommend you to use PNG if you are going to use transparencies in the composition.

Order the frames and move them to make our animated GIF to be even better and obtain a very good animation, choose the time that each frame will be visible and the number of times it will be repeated (0-infinite)

Once you'll have finished, click on Record, choose a name for the project and enjoy your masterpiece in your desktop or in your website. It's extremely easy to use and the results are very good, that's why we recommend you to use it to create your own animated GIFs.

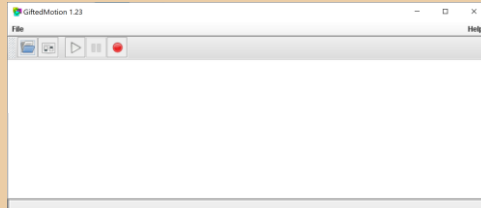
Note that this FREE program runs in a JAVA environment, so you may need to load JAVA first.

Visit: <https://java.com/en/download/>

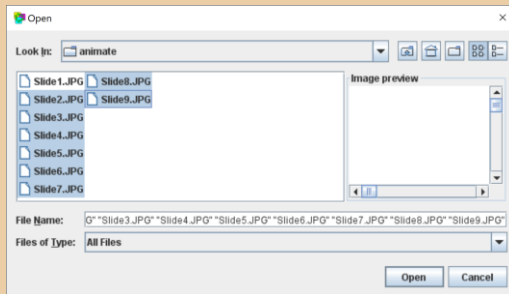
# Procedures

STEP 7: Double click on [giftedmotion-1.23.jar](#) to run

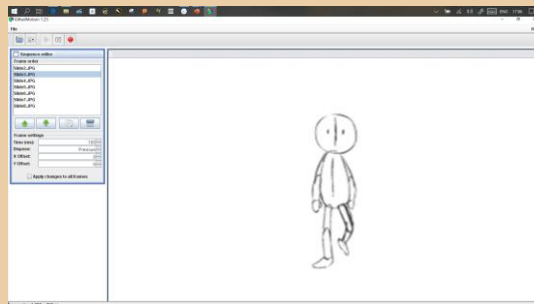
a. The Program window appears



b. Click on the folder button and point it to where you exported your PowerPoint JPG's



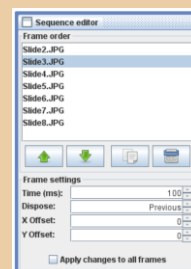
c. Select all of the relevant slides, click open.



d. The 'Triangle' runs the sequence, and the Red Dot saves the animation.



e. The other box allows for reordering the slides and changing the timing etc.



f. Enjoy

