Introduction to Windows 10

Part 2

In this presentation we will have a quick look at the following:

- Window structure
- Ease of Access
- File Deletion
- Control Panel
- Sound
- Audio CDs
- Ripping music from CDs
- Digital pictures

And the following applications:

Notepad

WordPad

Paint

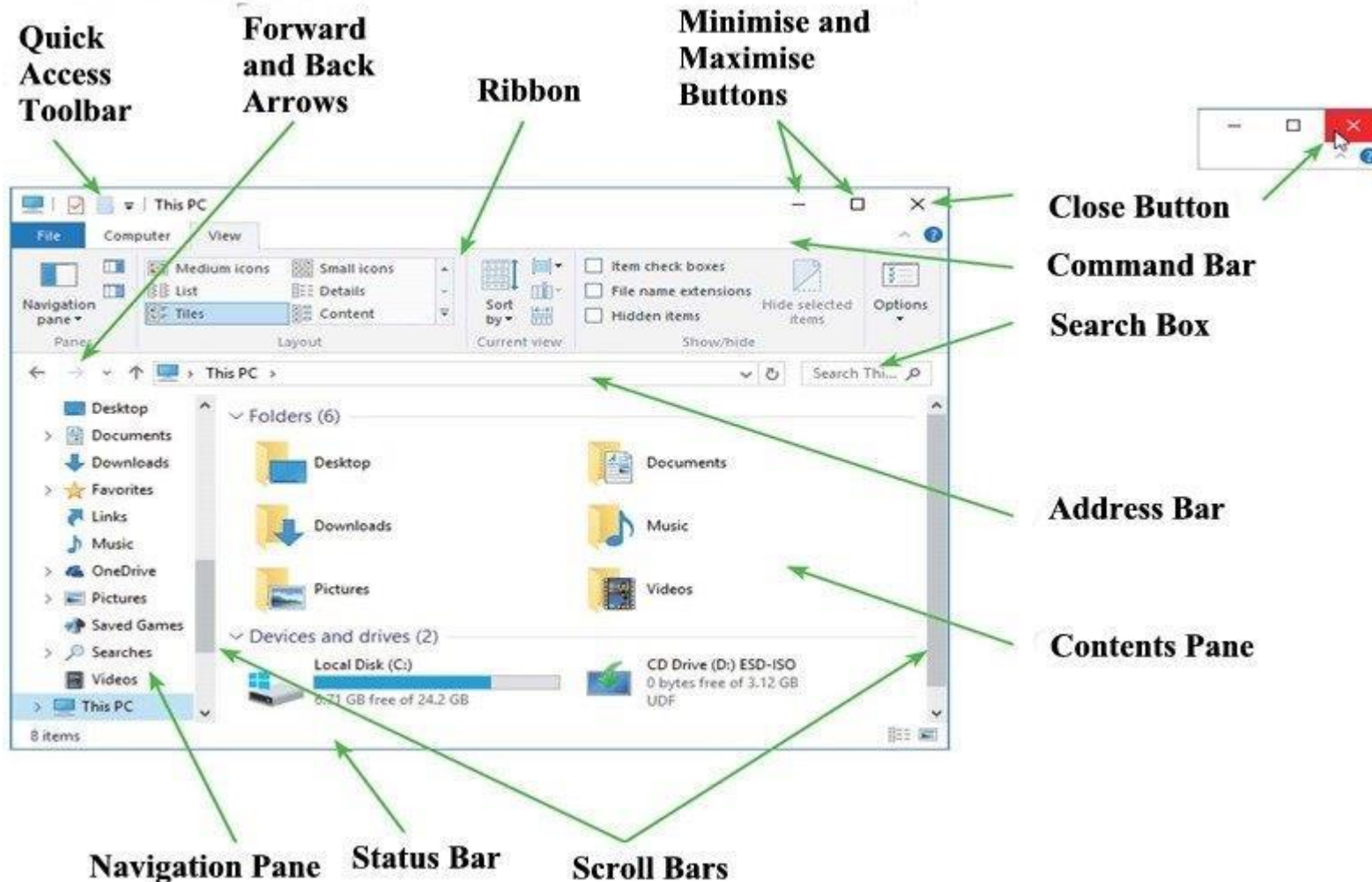***Calculator***

Photos

Windows Defender

Windows Firewall

Windows Update

Window Structure

When you open a folder, or start a Windows function or application program on the Desktop, it normally appears as a window that can be moved and resized. File Explorer (the icon) is shown below.

Features of the Window

Quick Access Toolbar

Forward and Back Arrows

Ribbon

Minimise and Maximise Buttons

Close Button

Command Bar

Search Box

Address Bar

Contents Pane

Navigation Pane   Status Bar   Scroll Bars

Click the Maximize button to view the window using the whole screen, and the Restore button appears in place of it.

Note that the ribbon view as shown here is now the norm for most Microsoft programs, but not all: Notepad, for example, still has an older-style Menu Bar.

Ease of Access

Windows 10 Settings also allow you to set up Ease of Access options on your computer, to improve accessibility.

First open Settings, then click on Ease of Access.
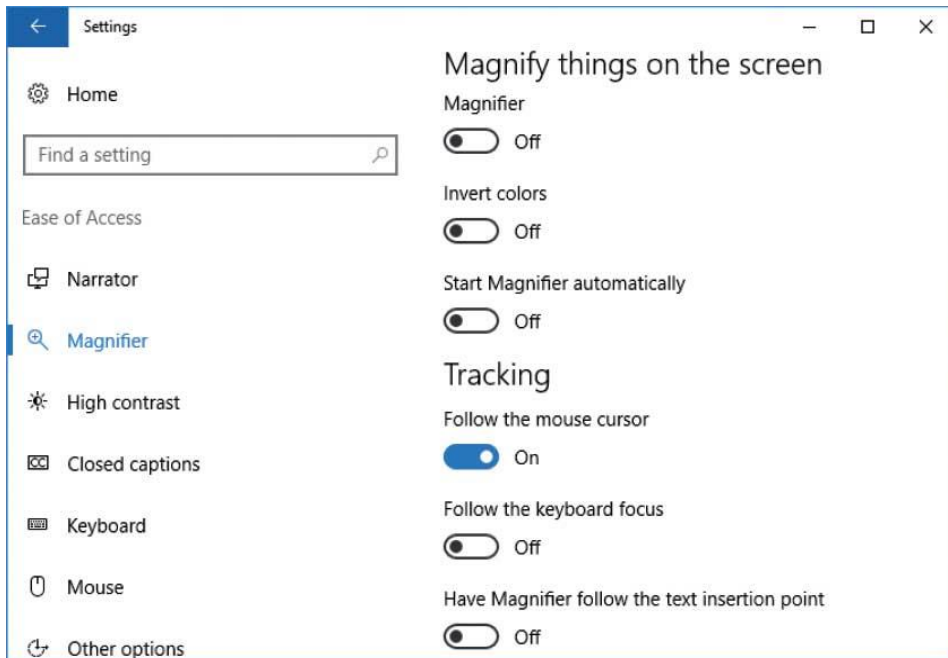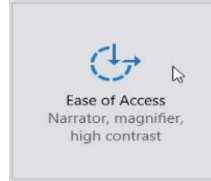
Select Magnifier to turn Magnifier on, invert colours and enable tracking (to have Magnifier follow the keyboard focus or the mouse cursor).

Select Mouse to adjust the pointer size, change the pointer colour or use the numeric keypad to move the mouse around the screen.

You can also manage use of the screen, keyboard and other options such as cursor thickness. To make the typing cursor easier to spot, for example, select "Other options" then drag the slider for "Cursor thickness" until it is the size you'd like.

File Deletion

The norm in Windows is that files stored on a hard disk on your computer are moved to the Recycle Bin when they are deleted, and only permanently removed when the Recycle Bin is emptied. Files stored on a removable drive such as a USB flash drive are normally permanently deleted straight away.

To remove files:
Select the file or files, and either right-click the selection and choose the Delete command, or press the keyboard Delete (Del) key.

To recover a file deleted by mistake, right-click the Recycle bin and select Open (or just double-click the icon). Select the file or files to be recovered and click "Restore the selected items", on the Ribbon. The files are returned to their original locations.

To remove hard disk files completely without using the Recycle bin as an interim store, hold down Shift as you select Delete. You'll be asked to confirm.

The deleted files cannot then be recovered.
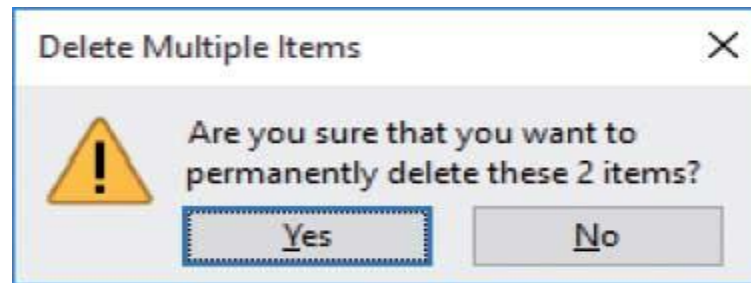
Control Panel

In previous versions of Windows, the most comprehensive options for customizing your system were provided via the Control Panel. Although the Settings feature is gradually taking over, the Control Panel is still important, so there are several ways to access this:
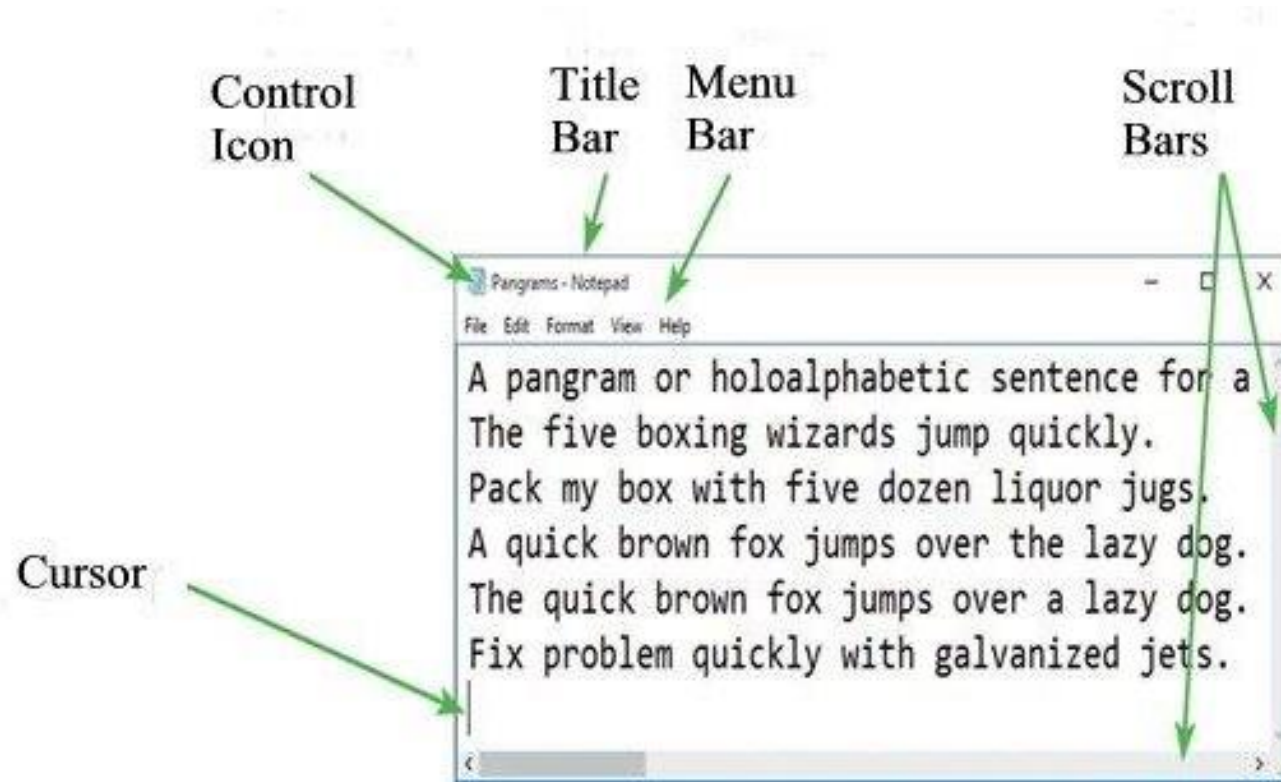
- From the Start menu Search box, start typing Control Panel. When the Control Panel entry appears, press Enter or click it.
- Open File Explorer from the Taskbar or the Start menu, select This PC and then the Computer tab, and choose System properties from the Ribbon then select Control Panel Home.
- In All Apps (on the left of the start screen), scroll down to Windows System, expand this by clicking, and select "Control Panel".
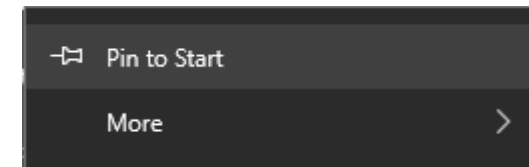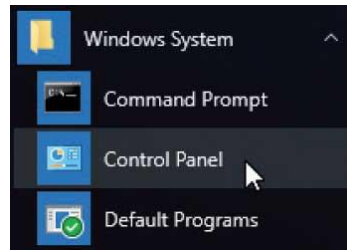
If you are likely to want to access the Control Panel regularly, and do not like these complicated methods of doing so, you may want to use the third method and then right-click on "Control Panel" and "Pin to Start". This will put a Control Panel tile on the right-hand portion of the start screen and you can then resize and reposition it to suit.

Notepad   A basic text editor

Control Icon   Title Bar   Menu Bar   Scroll Bars

Cursor

```
Pangrams - Notepad                               –  □  X
File  Edit  Format  View  Help

A pangram or holoalphabetic sentence for a
The five boxing wizards jump quickly.
Pack my box with five dozen liquor jugs.
A quick brown fox jumps over the lazy dog.
The quick brown fox jumps over a lazy dog.
Fix problem quickly with galvanized jets.
```

As mentioned in a previous slide, Notepad does not yet have the ribbon-style Menu Bar, retaining the simpler style in keeping with its simpler purpose.

It is used a lot when programming, such as writing html code for websites. The absence of formatting and text wrapping becomes a benefit when working with the source files for a program or HTML, since these require pure text.

In more normal use it can be extremely useful for stripping out excessive formatting such as when copying text from websites. Instead of pasting into a word processing program, first paste into Notepad to remove formatting then copy again for use in Word or equivalent.

Should you find you do have a need for a text editor, you might be interested in Notepad++. This free program, available from https://notepad-plus-plus.org, is very useful when writing programming code such as html.

WordPad

WordPad also offers text editing, but adds tools and facilities for more complex formatting of indivdual pieces of text. Start WordPad from Windows Accessories in the All Apps list, and enter text, pressing Enter for each new paragraph.
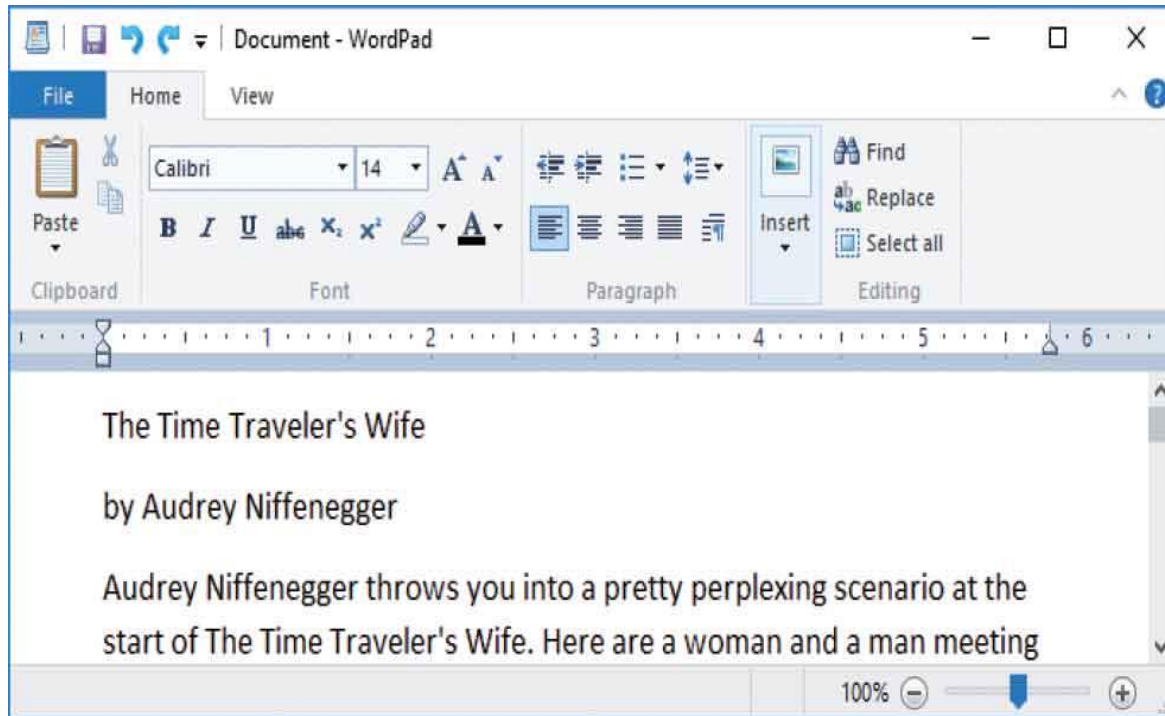

Use the formatting bar to change the font, size, style and colour for selected (highlighted) text.

WordPad uses the Ribbon rather than a Menu bar. There are two tabs: Home and View. The File button provides Save, Setup and Print functions.

Click the left, centre or right alignment buttons to adjust the positioning of the selected paragraph or line of text.

Save WordPad documents as .rtf (Rich Text Format) to retain the text formatting. Saving as .txt (Text file) will remove the formatting (and images or links).
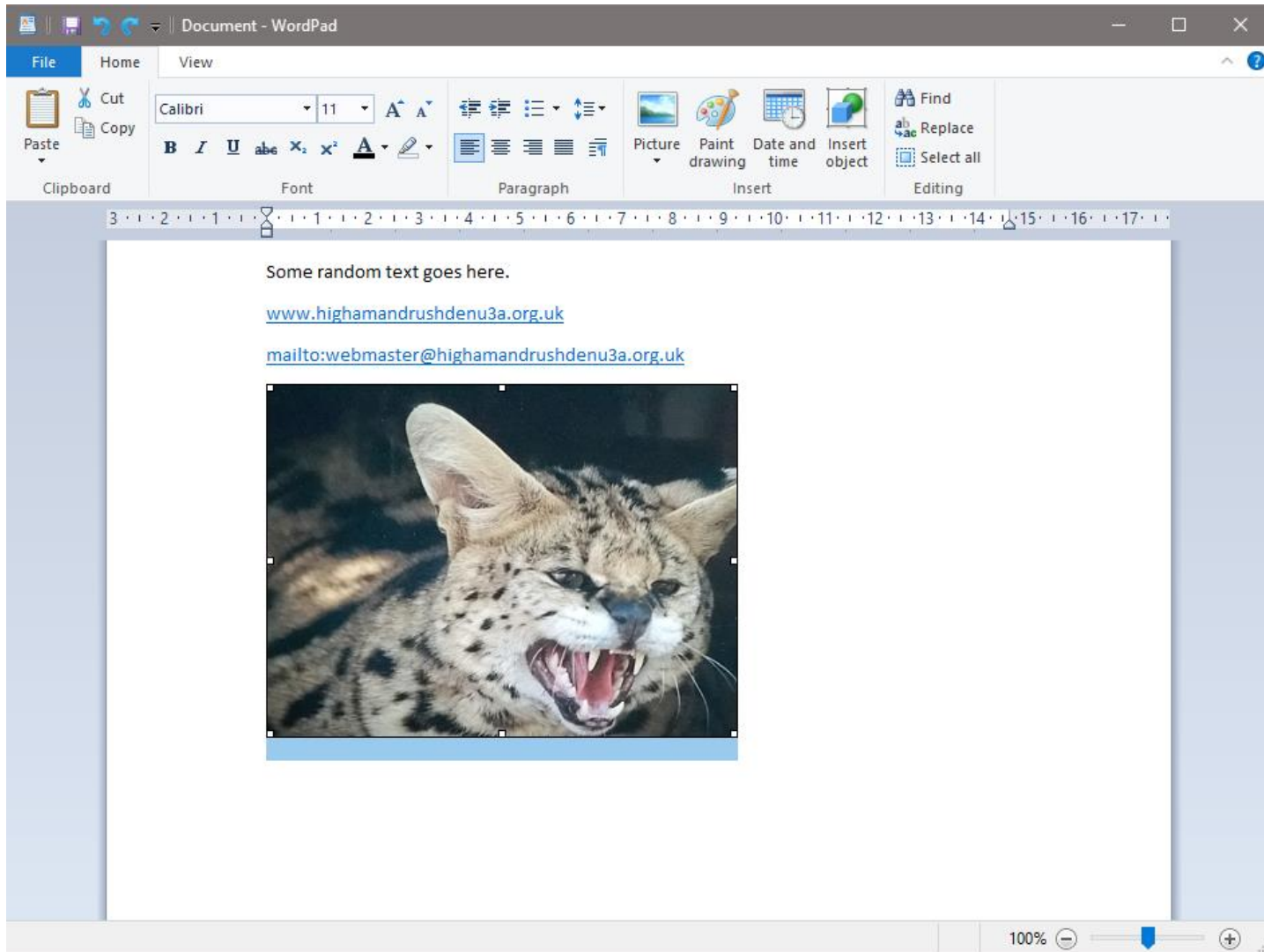
As you type, text will wrap itself automatically.

If you insert a web address beginning with http or www, WordPad will automatically convert it to a clickable hyperlink.

If you want to add a clickable e-mail address you need to preface it with "mailto:" (without the quotes).

The ribbon also allows you to insert a picture and clicking the Picture icon opens a File Explorer window to let you navigate to the picture you want.

Note that the picture size can be adjusted by highlighting it and then dragging the dot at any corner, or by right-clicking and selecting "Resize picture".

The picture size can also be adjusted by dragging the dots in the centre of any edge, but **doing so will distort the image**.

Paint

Paint is a digital sketchpad that can be used to draw, colour and edit pictures. These can be images that you create from scratch, or you can modify existing pictures, such as digital photographs or web page graphics. For example: Select Paint from Windows Accessories in the All Apps list, to start up with a blank canvas.
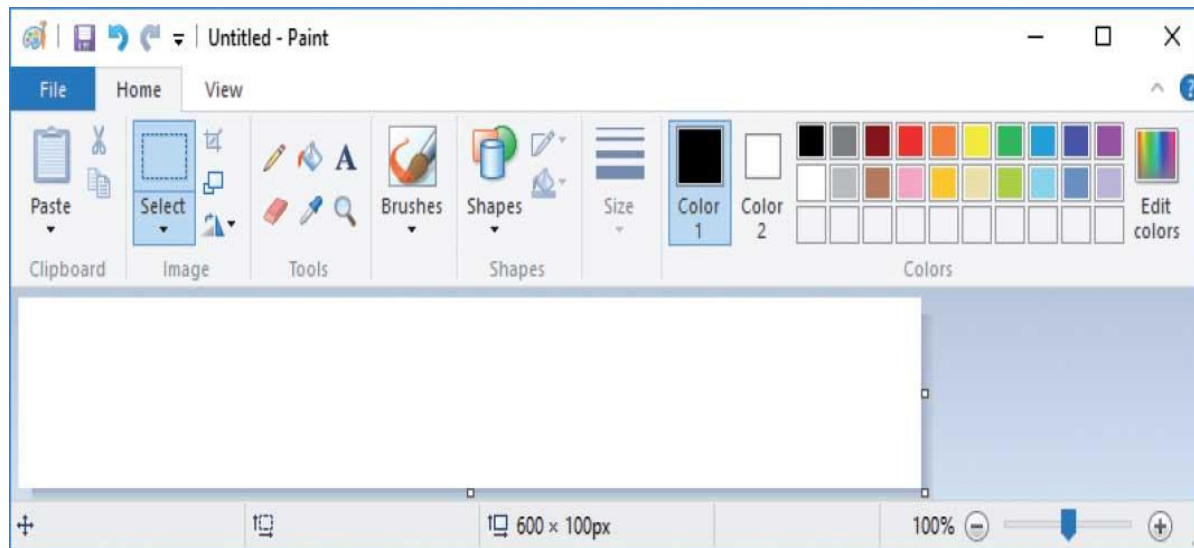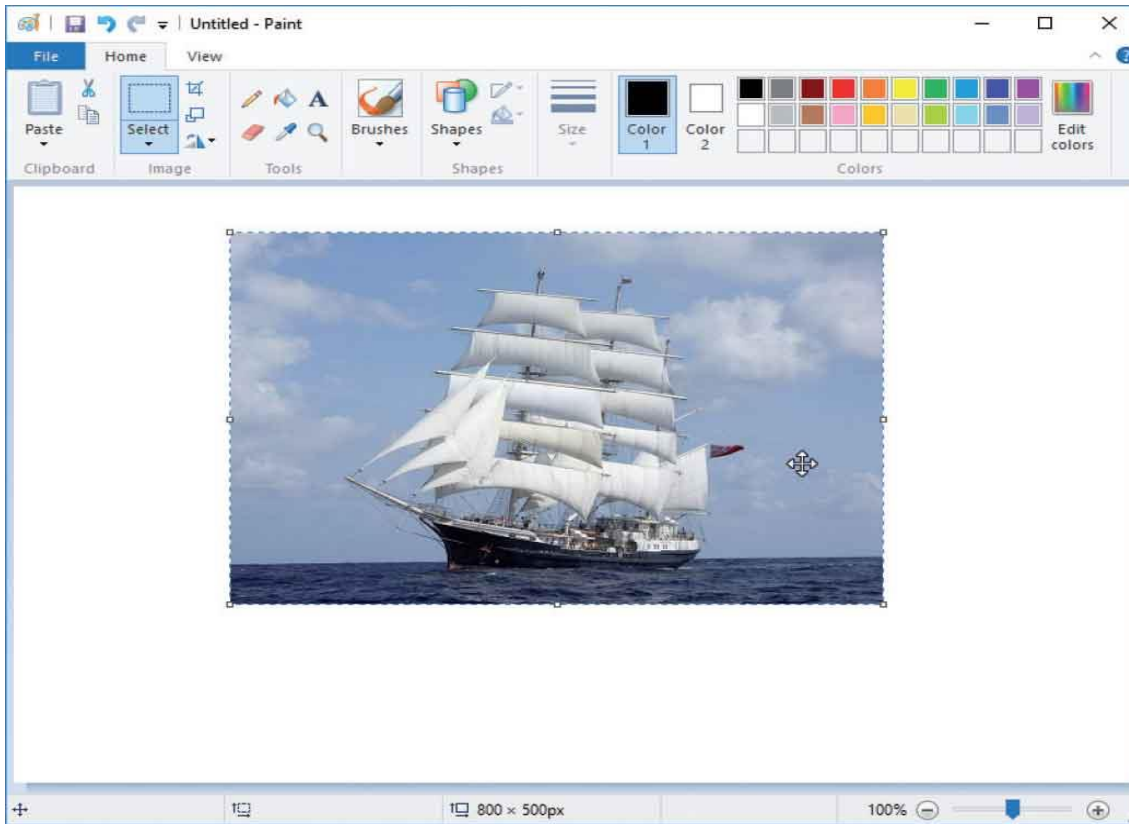

Click File and select Properties to reset the canvas size (e.g. 800 by 500 pixels) and click OK.
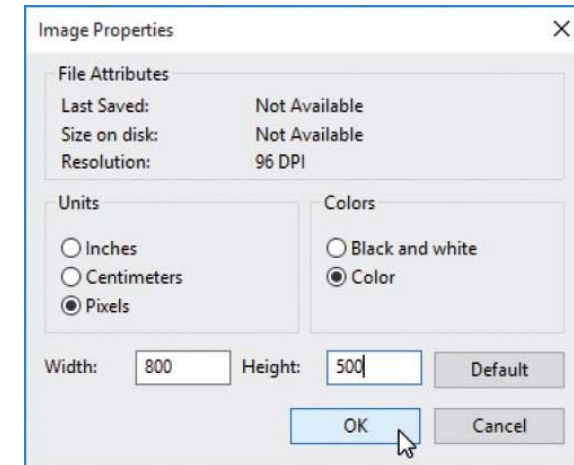
Select the arrow below Paste, select Paste from, locate the picture to add to the canvas and click Open.
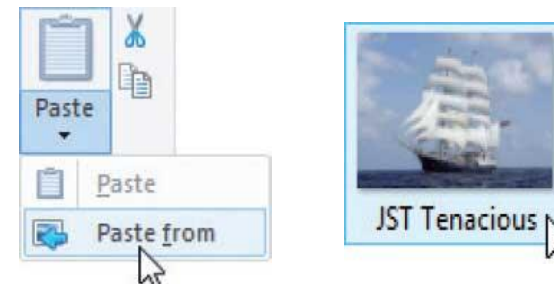
Drag the image to position it centrally, with space for a title if you want.

Click Shapes, select the Rounded Rectangle tool, then click and drag to draw a frame around the picture.

Use the Text tool to draw a text box and add information such as a description of the contents.

To make changes, select the View tab and Click the Zoom in button, or the Magnifier.

Although it is a simple image editor, Paint can be used to create very complex images, a pixel at a time if required.

To reset the canvas size you can also drag the points at the side of the canvas outwards to a size of your choice.

If the pasted image is larger than the canvas, the canvas will automatically be extended to hold the picture.

When you've finished making changes, select File, Save, type the file name and location and click Save. Choose a suitable file type such as .jpeg for pictures, or .png for documents. Paint also supports .bmp, .gif and .tif file formats.

For a more feature-rich program, including the ability to work with layers, you might want to have a look at the free program *Paint.net* available from http://www.getpaint.net/index.html.
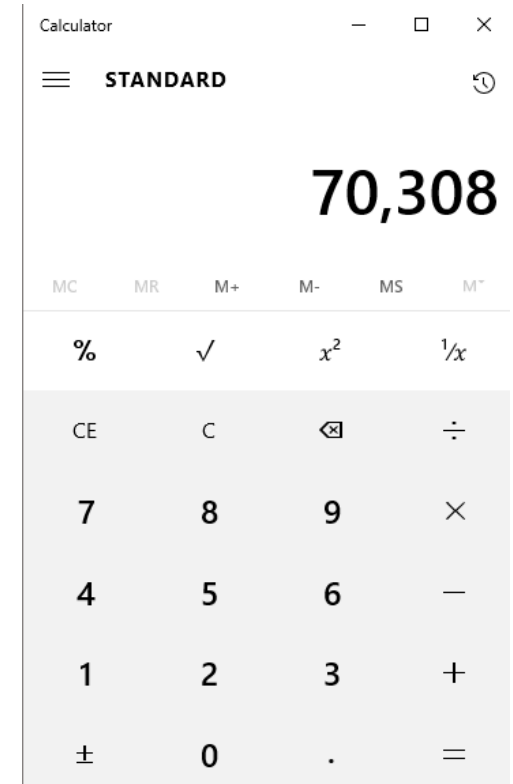
Calculator

While it is no substitute for a full spreadsheet application, the Windows Calculator app provides quite powerful computational facilities. Open it from the All Apps list on the Start menu.
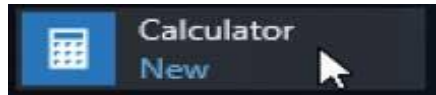
In Standard mode, type or click to enter the calculation using the desired operation symbol, and press = to display the result.
Click the function buttons or press the equivalent keyboard keys, to perform Add, Subtract, Multiply, Divide, Square Root, Percentage and Inverse operations. You can also store and recall numbers from memory, and the History capability keeps track of stages in the calculations.
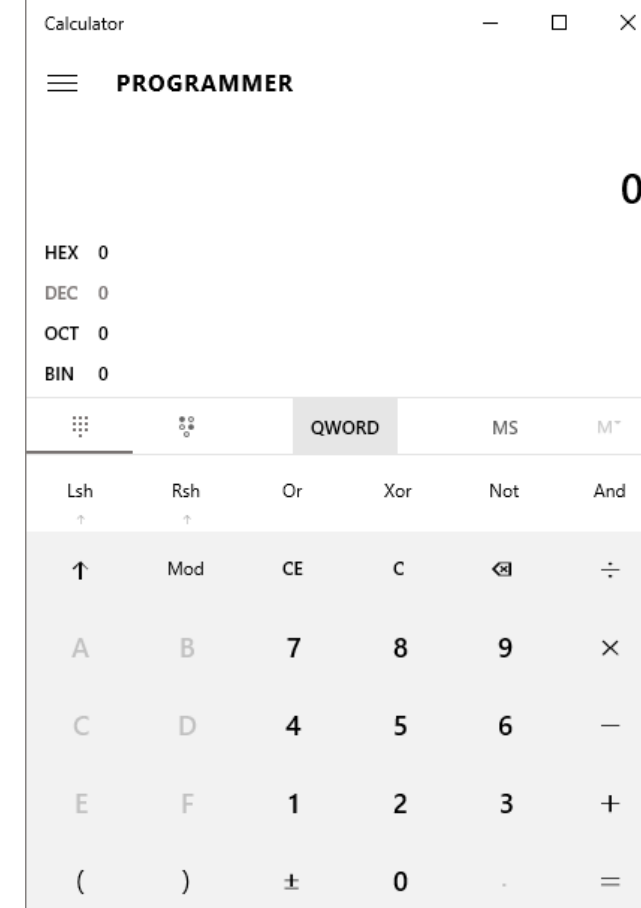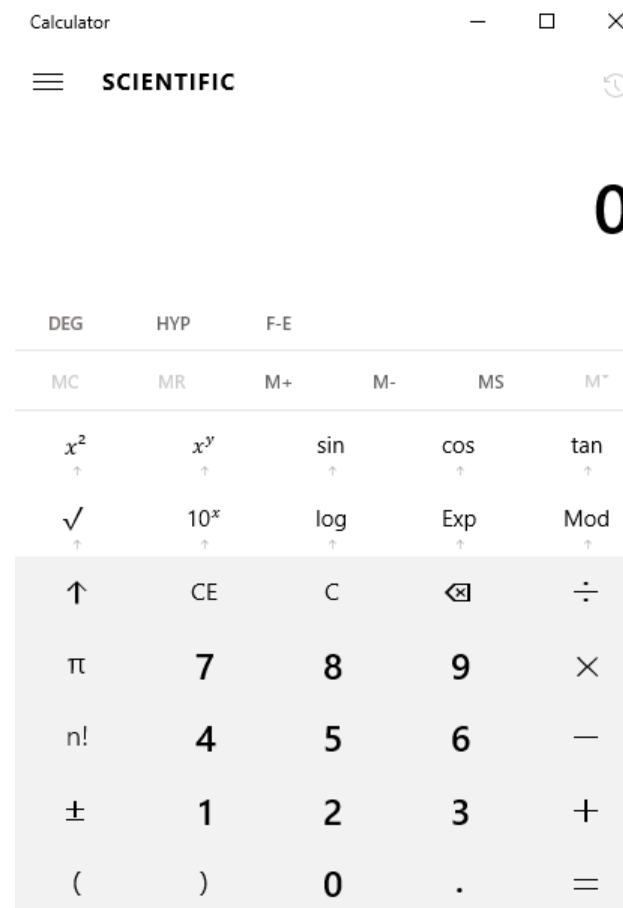
You can also use the numeric keypad on your keyboard to type numbers and operators. Press Num Lock if it is not already turned on.
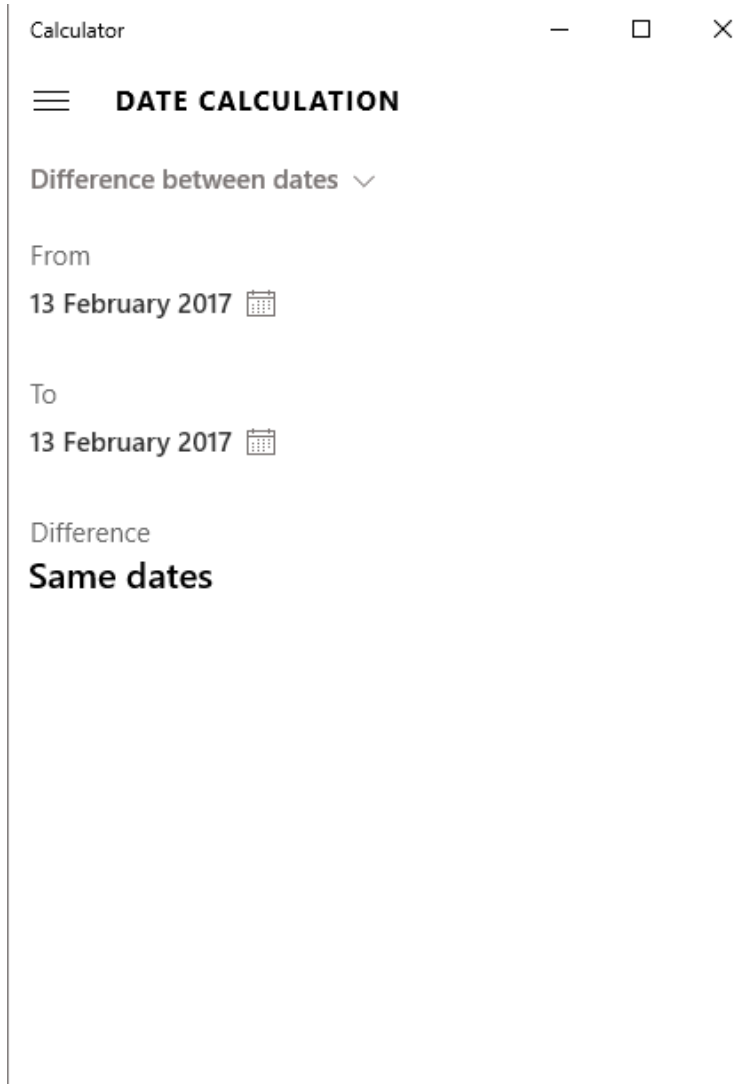
By default, Calculator will open in Standard mode. Click on the ☰ symbol to see a choice of different modes.
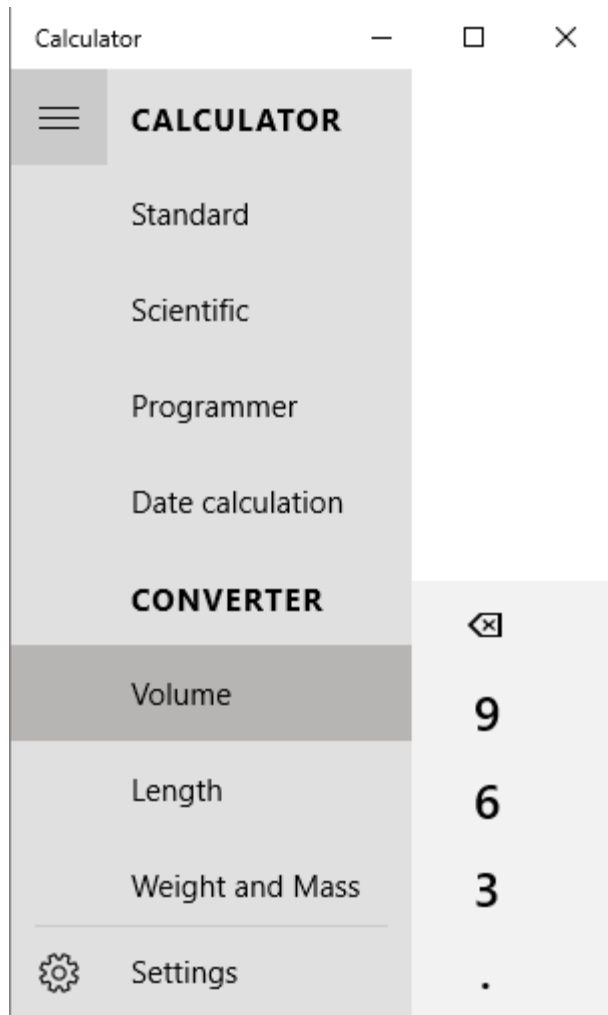
Scientific mode may be of interest to mathematicians and geometers, while Programmer mode is completely incomprehensible (to me, anyway).

Calculator — □ ×

☰ **CALCULATOR**

Standard

Scientific

Programmer

Date calculation

CONVERTER

Volume

Length

Weight and Mass

⚙ Settings

0 ⌫ 9 6 3 .

Calculator — □ ×

☰ **SCIENTIFIC** 🕓

0

DEG	HYP	F-E		
MC	MR	M+	M-	MS	M˅
x^2	x^y	sin	cos	tan
√	10^x	log	Exp	Mod
↑	CE	C	⌫	÷
π	7	8	9	×
n!	4	5	6	—
±	1	2	3	+
(	)	0	.	=

Calculator — □ ×

☰ **PROGRAMMER**

0

HEX 0
DEC 0
OCT 0
BIN 0

⠿		QWORD	MS	M˅
Lsh	Rsh	Or	Xor	Not	And
↑	Mod	CE	C	⌫	÷
A	B	7	8	9	×
C	D	4	5	6	—
E	F	1	2	3	+
(	)	±	0	.	=

Calculator

≡ **DATE CALCULATION**

Difference between dates ⌄

From
13 February 2017 🗓

To
13 February 2017 🗓

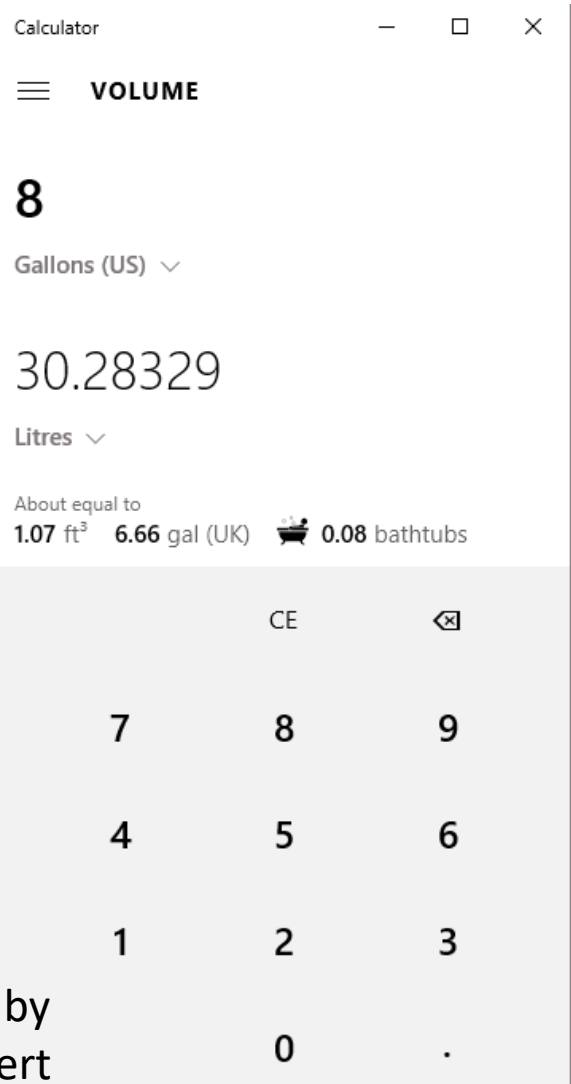Difference
Same dates

In Date Calculation mode (shown on the left), Calculator is an easy way to find the difference between dates.

The Converter section has options for converting:
- Volume
- Length
- Weight and Mass
- Temperature
- Energy
- Area
- Speed
- Time
- Power
- Data
- Pressure
- Angle

In any of these tools, use the drop-down menus accessed by the downward-pointing arrows to select the units to convert between.
Notice that the tool also helpfully volunteers equivalents in other units.

≡ **VOLUME**

8

Gallons (US) ⌄

30.28329

Litres ⌄

About equal to
1.07 ft³   6.66 gal (UK)   🛁 0.08 bathtubs

|	CE	⌫
7	8	9
4	5	6
1	2	3
	0	.

Sound Card and Speakers

The sound card in your computer processes the information from apps such as Groove Music or Cortana and sends audio signals to your computer's speakers. To review and adjust your sound setup:

- Open the Control Panel from Windows System on the All Apps list.
- Select "Hardware and Sound" and then "Sound".
- Click the Playback tab, select the entry for Speakers, then click Configure.
- Select your speaker setup, click "Test" to check the speakers, and then click Next to continue.
- Specify which speakers are present in your setup
- Specify if speakers are full-range versus satellite
- Click Finish to complete and apply the new settings to your computer.

If you have a laptop or all-in-one PC with built-in speakers these will normally be stereo and full-range types.

Satellite speakers are external and normally small, discreet and cannot play low frequency sounds. They're usually paired with a subwoofer.
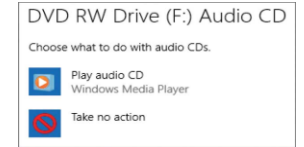
If you have a separate sound adapter, it may be installed with its own audio application programs to set up, configure and test the device features.
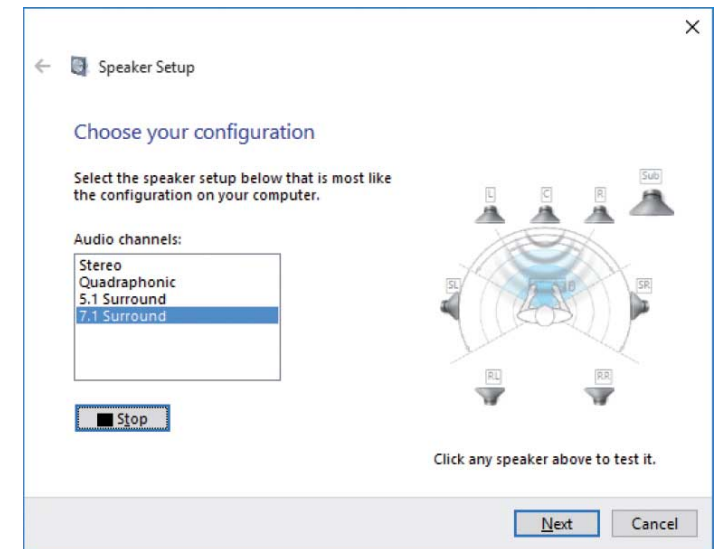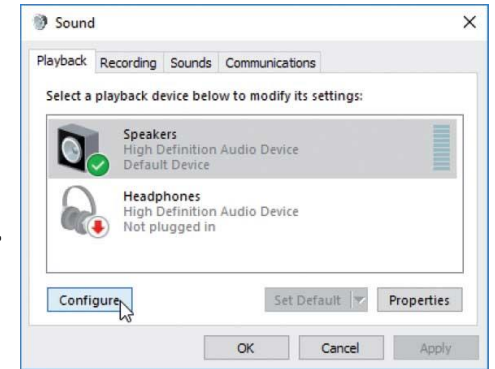
Play Audio CDs

Insert an audio CD and close the drive. Windows recognizes the type of disc and prompts you (if a default action isn't yet defined). You can choose a default of playing the CD or doing nothing.

Click "Play audio CD". Windows Media Player starts, and the first time you must choose the settings.
Select Recommended settings, or click Custom settings to review, and if necessary make changes to the Privacy options that are applied.
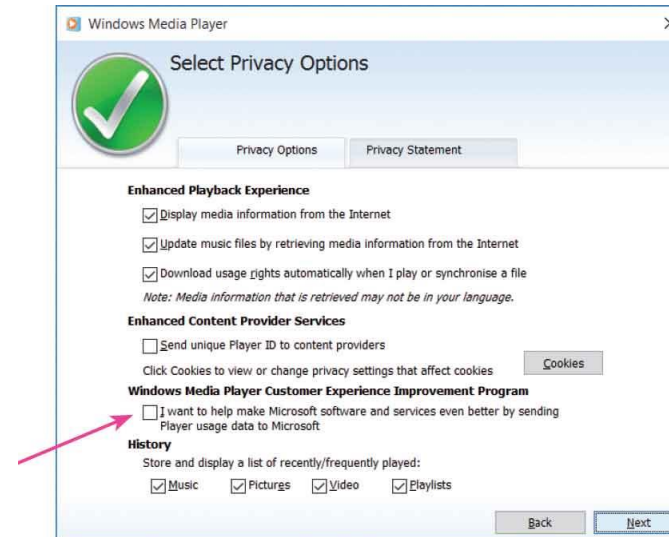
If you accept the recommendations, Windows Media Player becomes the default for music files.
Information about the music is downloaded and usage data will be sent to Microsoft if you select the Customer Experience Improvement Program box.

Make Windows Media Player the default, or choose the file types that you want it to handle.

The CD begins to play in a mini Windows Media Player screen and track data is added.
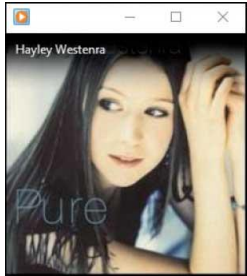
Move the mouse over the window and then click the Switch to Library button that appears, to see your Windows Media Player Library, and the CD details.

Windows Media Player is the only option offered for playing CDs. However, to play music files there is also the **Groove Music** app.

The CD provides the track numbers and the durations, and if you have an internet connection the CD is usually identified, and the full artist and album details are downloaded.

Copy Tracks

Right-click the Now Playing window, select More Options..., then click the Rip Music tab.

For Format, choose the type of audio file (e.g. MP3).
Choose the Audio Quality (e.g. using bit rate 192 Kbps).
Start playing the CD and click the Rip CD button (it becomes Stop rip and then CD Already Ripped).

Each track in turn is copied, converted and saved.
Files will be saved by default in your Music folder, and the CD can play while tracks are being copied.

The higher the bit rate, the better the quality, but the larger the file. As an estimate, a full audio disc is copied at:

Bit rate	Needs
128 Kbps	57 MB
192 Kbps	86 MB
256 Kbps	115 MB
320 Kbps	144 MB

You can choose if you want copy protection on your music, but in any event you must confirm you understand the copyright nature of the material.
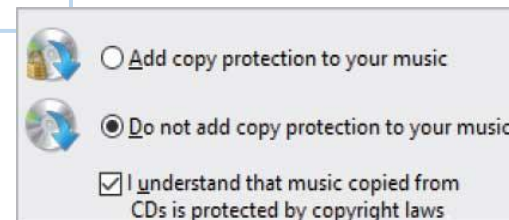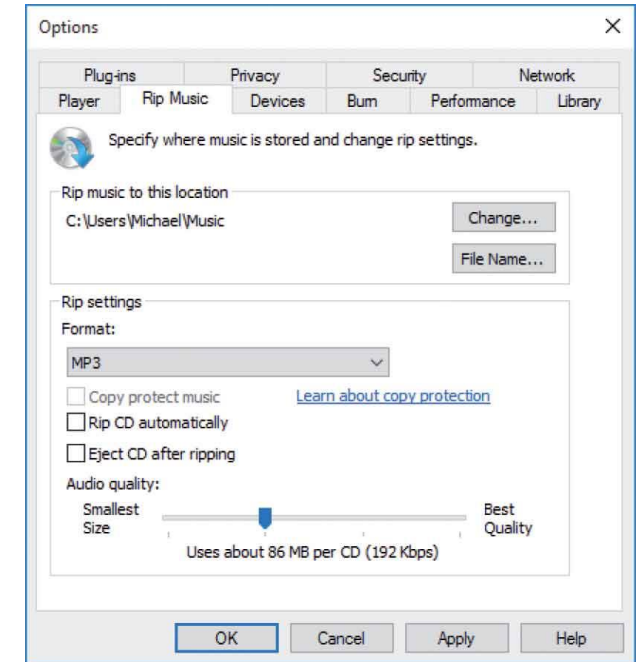
Digital Pictures

There are a number of ways you can obtain digital pictures:
- Internet (e.g. saving images from art or photography websites)
- Scanner (copies of documents, photographs or slides)
- Digital Camera (photographs and movies)
- Email attachments and faxes

Website pictures will usually be stored as JPEG (.jpg) files, which are compressed to minimize the file size. This preserves the full colour range but there is some loss of quality. Some images such as graphic symbols and buttons will use the GIF (.gif) format, which restricts colour to 256 shades to minimize the file size.

In most web browsers right-clicking an image brings up a menu like this.
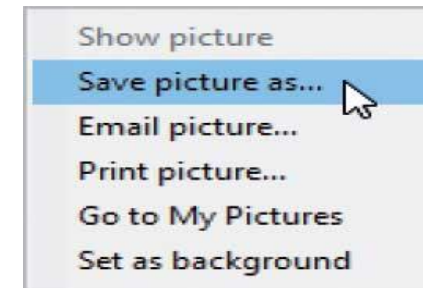
Right-click the image, then select "Save picture as.."
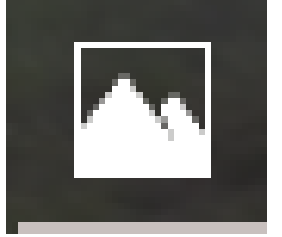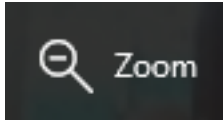Accept (or amend) the file name, and select a location,
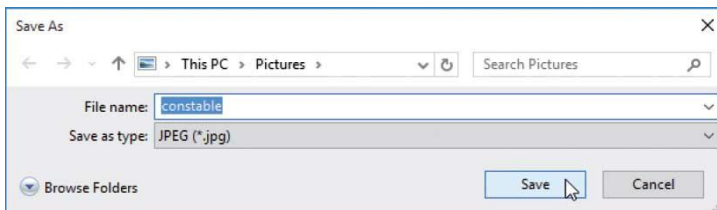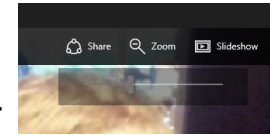
then click Save

NB: You can right-click and save the picture even when only part of it is visible on the screen.
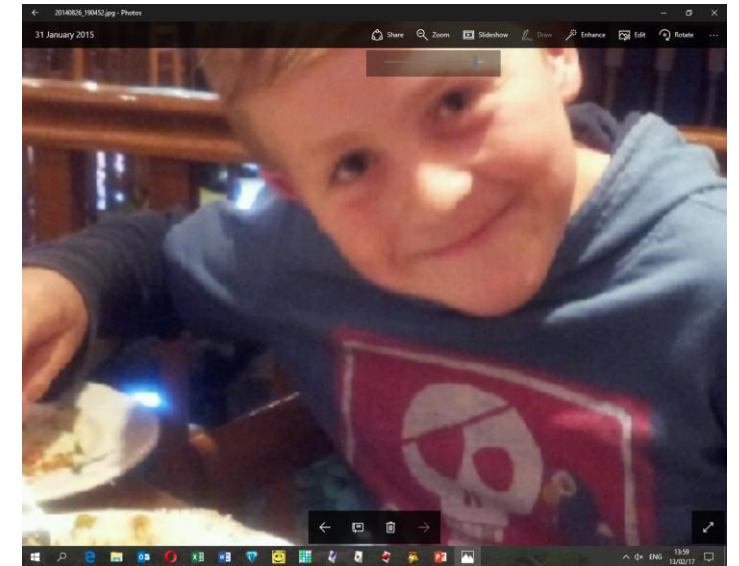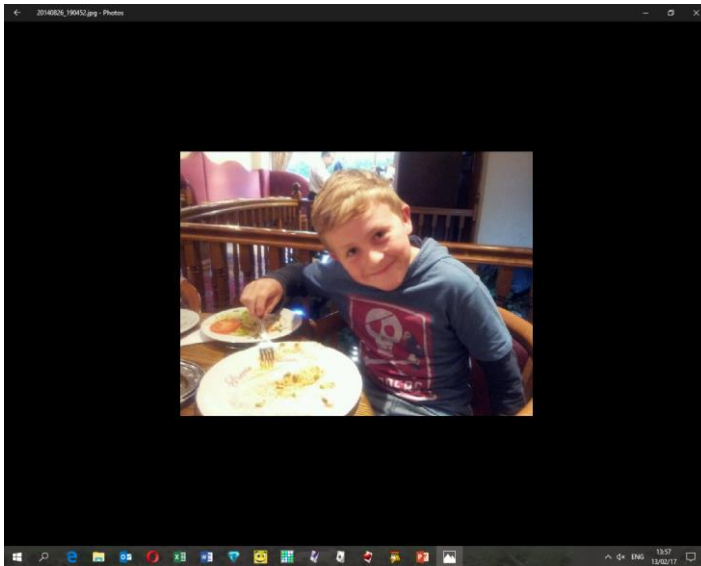
Photos App

Double-click an image in your Pictures folders and the Photos app opens, showing the selected picture. Mouse up to the top of the screen to reveal the toolbar.

The zoom icon enlarges the image and also opens a slider (circled in red below) which allows greater magnification and fine adjustment of scale.


In Photos the contents of the picture folder are arranged in reverse chronological order.

The Photos app will automatically organize your photographs (by date) into albums of related photos, choosing those it identifies as the best, although you can edit the selection.

Click the More Options (...) icon on the command bar to display additional options for dealing with your photos.
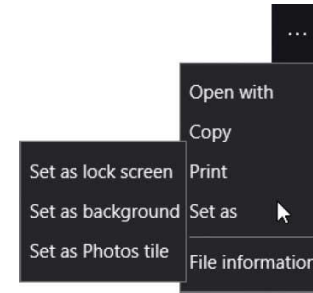
Click the Enhance icon to see the effect (without changing the original file in any way).
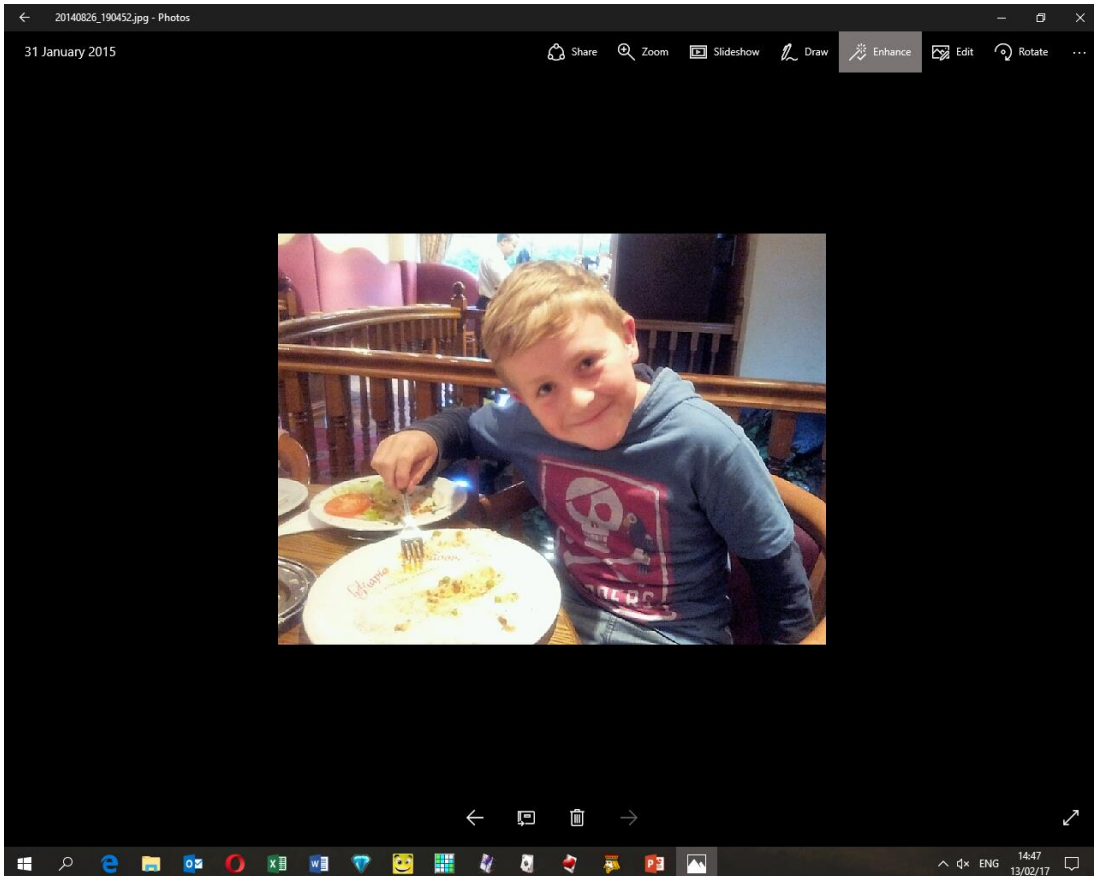
Click the Edit icon to access various tools to apply Basic fixes, Filters, and other effects.

On the right-hand side are effects such as Crop, Rotate, Straighten and Red eye.

On the left-hand side are the 4 sets of what Microsoft describes as "basic fixes": Filters, Light, Colour and Effects.

Select any of the tool sets to see the individual tools offered.

For example, the "Light" tool allows adjustment of brightness, contrast, highlights and shadows.
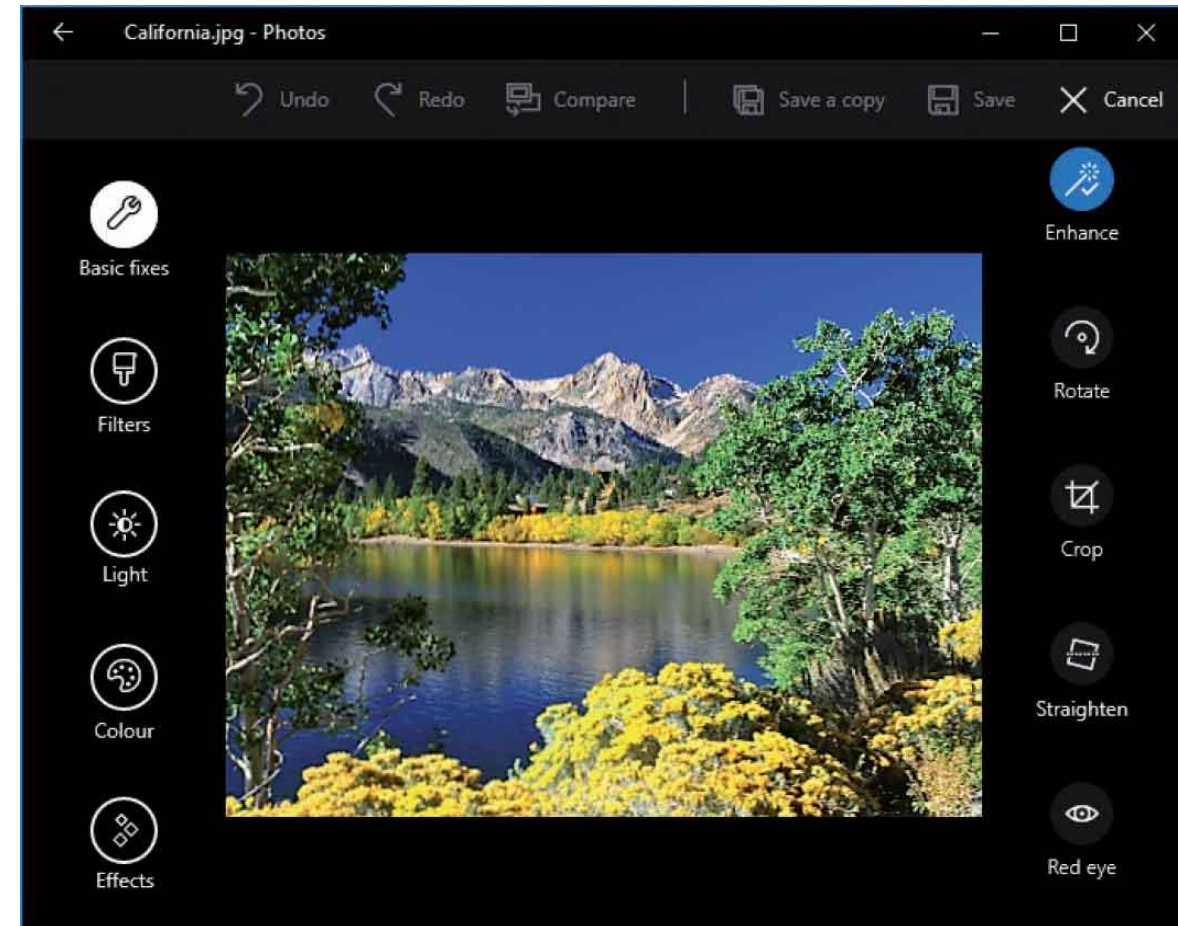
When you make a change, you have the option to "Save" (overwriting the original) or "Save a copy" of the picture.

Windows Defender

Select Settings, Update & security, Windows Defender and click "Open Windows Defender". (You can also select Windows Defender from the All Apps list on the Start menu.) Windows Defender opens to display the computer's latest status.
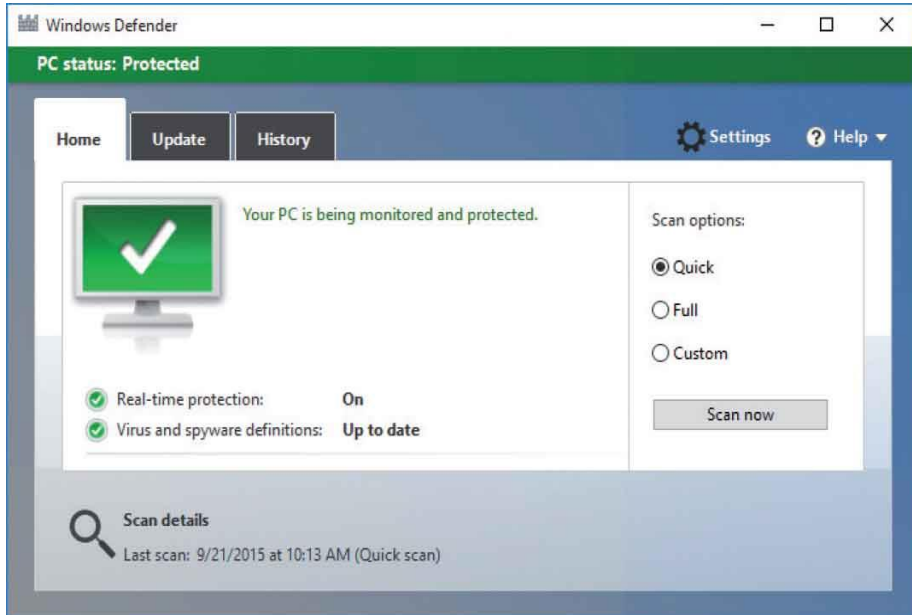
Click Scan now and Windows Defender will carry out a quick scan of your computer and report results.

Windows Defender provides protection against malicious software such as viruses and spyware, so you do not have to install separate utilities. Windows Defender also alerts you when spyware attempts to install or run, or when programs try to change important Windows settings.

Important note: There are many anti-virus programs, both free and commercial, and Windows Defender does not fare very well in comparison tests. These tend to show that *Kaspersky* is the best of the paid anti-virus programs, while *Qihoo* and *Avira* rate very highly among the free programs.
One review of Windows Defender says: Windows Defender will never trick you into installing something you don't want, and it will never nag you with ads. If you care more about intrusiveness than you do about perfect protection, Windows Defender is a decent option.

Windows Firewall

To protect your computer from malicious software while it is connected to the internet, you need Firewall software. This is included in Windows 10.

Open the Control Panel, select the System and Security category and click Windows Firewall.

Click Allow a program or feature through Windows Firewall, to view the list of allowed programs which can communicate through Windows Firewall.

Click Change settings to make changes to the allowed apps and features, and to enable the option to allow another app to communicate in the same way.

Entries may be added automatically when apps are installed, for example when you download and install the Microsoft Solitaire Collection.

Windows Defender and Windows Firewall will be turned off if you install a separate antivirus software product.

Windows Update

In Windows 10, Windows Update installs all updates automatically. This includes optional updates and driver updates, as well as security updates and Windows Defender definitions (known viruses and malicious spyware).
To view the status of Windows Updates on your system, open Settings, select Update & Security and then click Windows Update. Check for updates if you wish, or select Advanced options to see what controls you can apply.
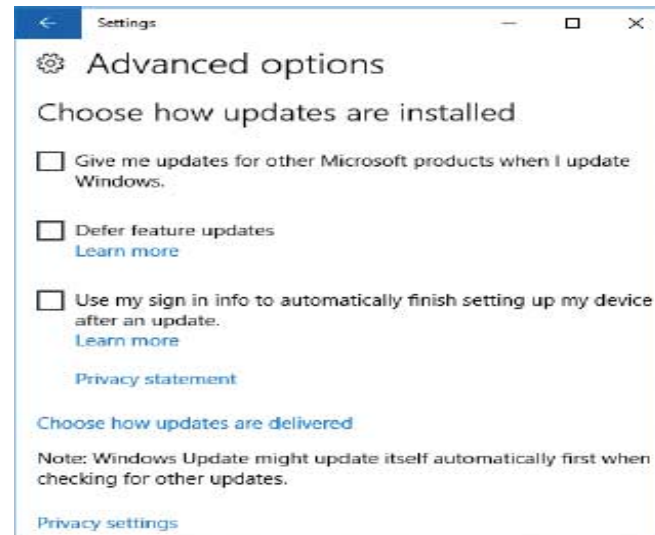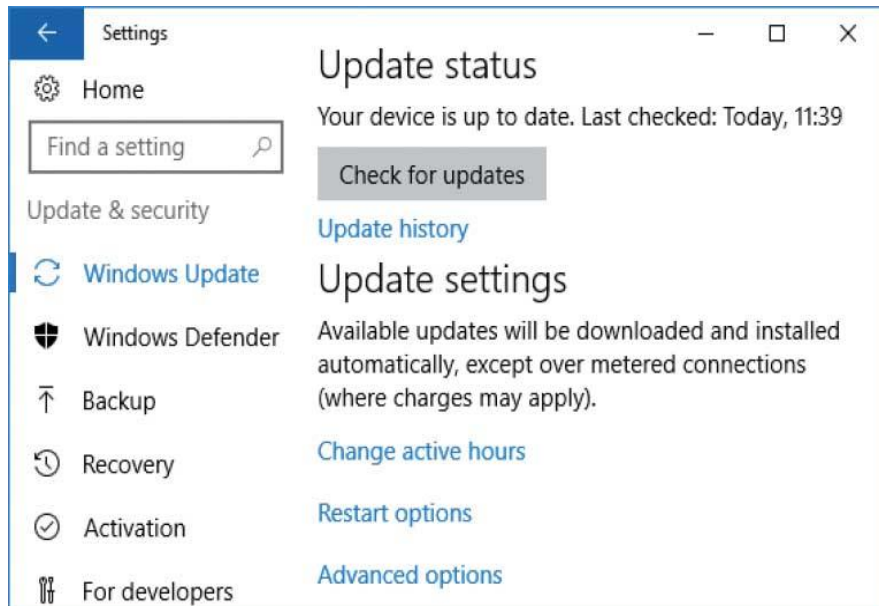
If you want, select the first box to get updates for other Microsoft products when you update your Windows 10 operating system.

THE END