



# One for all

Why have three machines cluttering up your desk when you can buy just one? We test the latest all-in-one printers

All-in-one printers can print, copy and scan, and some will even allow you to send faxes. This means they're great if you've got limited space in your home. And they're certainly growing in popularity – sales of all-in-one printers rose by 17 per cent between 2005 and 2006. But are they any good at what they do? We put them to the test.

If you're unsure whether to buy an all-in-one, work your way through 'Pick me a printer', p56, to help you choose between the many types of printer on offer. Once you know the sort of printer you want, head to [www.which.co.uk/printers\\_and\\_scanners](http://www.which.co.uk/printers_and_scanners) and use 'Compare products' to help you to choose a Best Buy. We test printers at regular

intervals throughout the year and add the results to our website, where we currently have test results of 96 models.

## Best Buy update

None of the models in our latest all-in-ones test performed well enough to be a Best Buy. So the featured Best Buy, the Samsung SCX-4725FN, p56, is taken from our previous test (see *Computing Which?*, November 2007, p41) – we have checked that it's still available for you to buy.

This Best Buy is a laser model that prints only in black ink. It can't be used to print photos or colour graphics – if you want to print these types of documents, we recommend a colour model on p57.

**We now have test results of 96 printers on our website**

## Software solution

If you're having problems getting your printer to work with either Windows Vista or any Apple Mac, check the printer manufacturer's website to ensure there's a suitable driver (see our 'Jargon buster', opposite) available. We show you how to download and install a driver, opposite.

Are you buying a printer to go with a new computer? Check what operating system (see 'Jargon buster') your computer uses, as you'll need to get the right driver for it. All the printers in the table (p56) are compatible with Windows Vista and Mac OS X.

## How we test



### Our tests reveal models' print quality and running costs

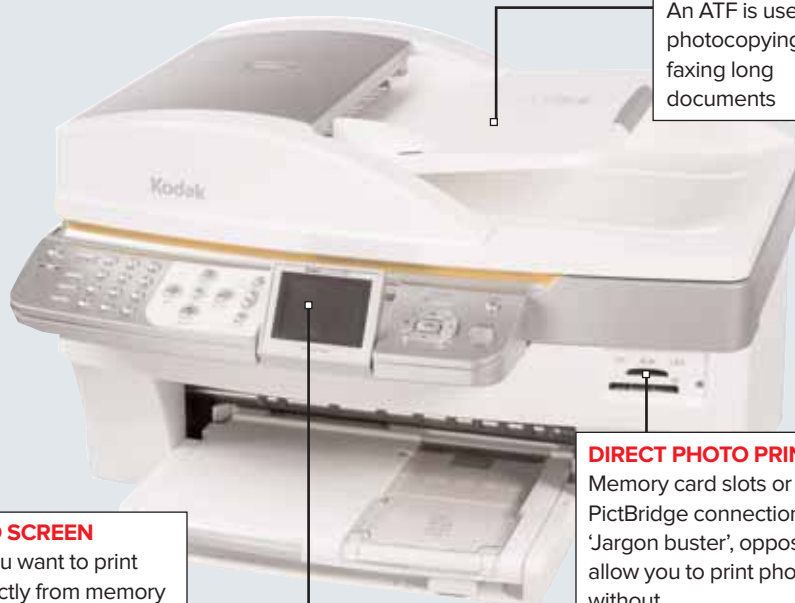
Our experts assess a typical black text letter, an 8x10-inch photo – in colour and black and white – a spreadsheet, and a document with colour graphics and text. Among other things, they check for sharpness, colour and contrast.

Using new ink cartridges, we print test documents until the printer stops printing. We count the number of pages and use this, plus the cost of each cartridge, to calculate the cost of printing.

### Scanning and copying

We scan and copy a magazine page and an 8x10-inch colour photo. We also scan a 3D object to see how well each printer reproduces objects at varying distances from the scan plate.

## What you should look for



### LCD SCREEN

If you want to print directly from memory cards, ensure the LCD screen lets you easily preview images

### AUTO DOCUMENT FEEDER (ATF)

An ATF is useful for photocopying or faxing long documents

### DIRECT PHOTO PRINTING

Memory card slots or a PictBridge connection (see 'Jargon buster', opposite) allow you to print photos without transferring them to a computer first



## Driver dilemma

When you buy a new printer, or if your current model isn't working properly, go to the manufacturer's website and download the most up-to-date driver (see 'Jargon buster', below)

1



Install your printer following the instruction manual provided – don't connect your printer to your computer until instructed to. Once you've done this, head to your printer manufacturer's website. Here we've used Canon (www.canon.co.uk) as an example of what to expect once you've logged on to the site.

2



Look for an area on the website called downloads, software support or support. On the Canon website you need to click on the link 'Support'. If you can't find the correct part of the website, look for its search tool – it's usually a box or a link entitled 'Search' – and try typing in 'Driver downloads'.

3



Click 'Software download', and select your printer type (on the Canon site, all-in-one printers are multifunctionals). Select your operating system from the menu, and click 'Submit'. Scroll down, and click the software you want to download. Next, click the file name under 'Software'. Tick 'I accept', click 'Download software' and the driver will install automatically.

### Contacts

**Brother** 0870 830 4000  
www.brother.co.uk  
**HP** 0870 010 4320  
www.hp.co.uk

**Kodak** 0870 243 0270  
www.kodak.com  
**Lexmark**  
0870 444 0044

www.lexmark.co.uk  
**Samsung**  
0870 726 7864  
www.samsung-europe.com



### CAN YOU SAVE MONEY WITH KODAK?

**Kodak's advertising claims its new printers are cheap to run. We tested them and were surprised by the results**

In late 2007, Kodak launched two inkjet all-in-one printers with a lot of fanfare about how cheap they would be to run. We

were a little sceptical of this at Which? and wanted to test the 5300 and 5500 thoroughly before singing their praises. The results are in and we're really excited by what we've seen.

Despite the fact that the two Kodaks haven't made it as Best Buys – both had poor text quality, for example, and the cheaper 5300 was let down by its photo quality – they live up to their claims of being much cheaper to run than their competitors. Colour A4 photos from the 5300 and the 5500 work out at 21p and 25p, respectively, which is considerably cheaper than any of the other printers in this batch.

### Concealed cost

However, there is a potential hidden cost that's worth thinking about. These Kodak printers contain a print head inside the device rather than on the ink cartridge. Once the print head reaches the end of its life it will need to be replaced (other printer brands, including Canon, also use this type of technology). Some brands have the print head in the cartridge, where it gets renewed every time you buy more ink. Kodak claims that the print head is unlikely to need replacing during the lifespan of the printer – we print thousands of pages during the course of testing and it didn't happen during this time.

If the print head stops working in the first year of ownership, Kodak will replace it under the warranty. After that, you pay about £18.50 for Kodak to replace it.

## Jargon buster

Don't know the difference between a driver and an operating system? Use our guide

■ **DRIVER** Software that allows your computer to communicate with devices such as a printer or a scanner.

■ **OPERATING SYSTEM** The software that manages your computer.

■ **OPTICAL CHARACTER RECOGNITION** Software that automatically interprets scanned text and outputs it into a text document, such as a Word document, that you can edit.

■ **PICTBRIDGE** An industry

standard connection technology that directly connects digital cameras and printers.

■ **PRINT HEAD** Ink passes through the print head, which is like a very fine sieve, before hitting the page.



## Pick me a printer

Use our guide to find the best type of printer for your needs

The most flexible printers are inkjet all-in-ones, as they allow you to copy and scan, and print colour photos and other types of documents. Buy a small photo printer only if you know you just want to print postcard-sized photos. Otherwise opt for a full-sized inkjet, which can print snaps of this size and also A4 photos. If you don't know how much you're going to use

your printer, or what you're going to use it for, buy an inkjet all-in-one. Already own a scanner? Then go for a standard inkjet.

We've got test results for 96 small photo printers, all-in-ones and standard inkjet printers at [www.which.co.uk/printers\\_and\\_scanners](http://www.which.co.uk/printers_and_scanners). Our online product picker will help you choose the right Best Buy for your needs.



WHICH?  
BEST BUY

### 69% Samsung SCX-4725FN £212

This Samsung Best Buy laser all-in-one can print only in black ink, so it's more suited to a home office than if you want to print, say, photos and colour graphics (if you want to do this, see 'Worth considering', opposite).

It has an automatic document feeder (see 'What you should look for', p54) and a fax machine. Plain text document printing is fast and to a high standard. It's cheapest online.

**WORTH KNOWING** This printer measures 40x44x40cm, so make sure you have room for it before you buy.

Available Online Fax Yes Memory cards accepted None Paper trays One Screen Mono (this is a status screen and not designed for photo editing)

#### OUR RESEARCH

When choosing printers to test, we consult manufacturers, market research and experts, then check availability on the high street and online. We include top sellers, some lesser-known brands and those with innovative features.

MODEL	SPECIFI	
	PRICE (£)	PICTBRIDGE
MONO LASER		
1 SAMSUNG SCX-4725FN	212	
INKJET		
2 HP Photosmart C5180	100	
3 KODAK 5500	200	✓
4 HP Photosmart C5280	100	
5 HP Photosmart C4280	60	
6 LEXMARK X4550	100	✓
7 KODAK 5300	100	✓
8 BROTHER MFC-5460cn	122	✓

a If a model has an optional photo ink cartridge, this was used



## Worth considering

We tell you which model to buy if you want to print photos or colour graphics

The HP Photosmart C5180 (2) didn't make it as a Best Buy, but it's worth considering if you want to print colour documents and photos. Our testers described its printed images as being 'sharp with very good colour'.

One of the reasons this HP is not a Best Buy is because the quality of its text printing is below average. It's fine for printing emails and web pages, for example, but it's not great if you want to print important documents, such as your CV.



## COMPETITION

### Win a printing set worth £150

Five lucky members can be the proud owners of our recommended HP Photosmart C5180 all-in-one printer, HP cartridges, Xerox A4 paper and a Belkin cable – all worth a total of £150

#### TO ENTER, SIMPLY ANSWER THE FOLLOWING QUESTION

According to our report, by what percentage did sales of all-in-one printers grow between 2005 and 2006?

- (a) 1.7 per cent      (b) 17 per cent      (c) 70 per cent

To enter online, go to [www.which.co.uk/bestbuycompetition](http://www.which.co.uk/bestbuycompetition) or send your entry on a postcard to 'Best Buy March 08', Which?, PO Box 44, Hertford X, SG14 1SH.

Include your name, address and postcode, daytime phone number and Which? membership number (on your Which? Extra membership card as your user name). Entries received by 13 March 2008 will be entered. Our competition is open only to current Which? members. Only one entry per household. Usual rules apply.

See [www.which.co.uk/bestbuycompetition](http://www.which.co.uk/bestbuycompetition) or Which?, June 2007, p49, for a full set of rules.

**January 2008 Best Buy competition winners**  
Congratulations to the winners, who both won a Best Buy Toshiba Portege R500-106 laptop and a Netgear Rangemax Next Wireless N router:  
C J Wellburn, York  
S L Cartledge, Sheffield

Worth  
£150

#### USING THE TABLE

All models score ★★★★★ for ease of use, based on ease of set-up and use, and the clarity and coverage of the manual.

#### Specification

**Price** For Best Buys, we give the cheapest, widely available high-street price as we went to press. If we couldn't find them at major high-street retailers, we give the most common online price. Prices for

other models are a guide.

Go to [www.which.co.uk/shopping](http://www.which.co.uk/shopping) for the latest prices. **PictBridge**

Whether models can print directly from compatible digital cameras. **Memory cards** CF = Compact Flash; MMC = Multi Media Card; MS = Memory Stick; SD = Secure Digital; xD = xD-Picture Card.

#### Test performance

**Text quality** For one page of black-and-white text.

**Text speed** Five A4 text pages must print in less than 30 seconds for ★★★★★. **Photo quality**

Quality of an 8x10-inch photo. **Photo speed** 8x10-inch photo must print in less than a minute for ★★★★★; ★ took more than eight minutes.

**Scanning** Quality, speed and ability to scan different-sized items. How effectively the software translated scanned documents into text.

**Copying** Quality and speed of copying photos text and images, with and without using a computer.

#### Print costs

The cost of ink per A4 page of text, colour graphics document or photo, taking into account the number of pages printed before the cartridge(s) ran out. Where models have optional photo ink, this was used for photo costs. **Cost over three years** Ink costs for

one photo, three text pages, and two colour graphics pages a week. Cartridge costs vary – our print costs should be used as a guide only.

#### Score

This ignores price and is based on:

Printing	35%
Ease of use	20%
Scanning	15%
Copying	15%
Versatility	10%
Environmental	5%

CATION	WHICH? TEST PERFORMANCE						PRINT COSTS				SCORE %
MEMORY CARDS	TEXT QUALITY	TEXT SPEED	PHOTO QUALITY <sup>a</sup>	PHOTO SPEED	SCANNING	COPYING	BLACK AND WHITE TEXT (£)	COLOUR GRAPHICS (£)	PHOTO (£)	COST OVER THREE YEARS (£)	
n/a	★★★★★	★★★★★	n/a	n/a	★★★	★★★★★	0.02	see <sup>b</sup>	see <sup>b</sup>	see <sup>b</sup>	69
CF,MMC,MS,SD,xD	★★	★★★★	★★★★★	★★	★★★	★★★★	0.05	0.13	0.58	154	60
CF,MMC,MS,SD,xD	★★	★★★	★★★★	★★★★	★★★★★	★★★★	0.02	0.08	0.25	73	59
CF,MMC,MS,SD,xD	★★★	★★★★	★★	★★★★	★★★	★★★★	0.99	0.46	1.68	457	58
CF,MMC,MS,SD,xD	★★★★	★★★★	★★★★	★	★★★	★★★★	0.10	0.46	1.90	487	57
CF,MMC,MS,SD,xD	★★★★	★★★★	★★	★★	★★★★★	★★★★	0.04	0.13	1.53	298	57
CF,MS,SD,xD	★★	★★★	★★	★★★★	★★★★★	★★★★	0.02	0.07	0.21	64	54
CF,MMC,MS,SD,xD	★★	★★★	★★	★★	★★★★★	★★★★	0.02	0.07	0.44	100	51

<sup>b</sup> Model prints in black and white only, so we are unable to provide this data