

> APS-C WIDE-ANGLE ZOOM TEST

# TAKE A WIDER VIEW



AN ULTRA-WIDE ZOOM WILL TRANSFORM YOUR LANDSCAPE PHOTOGRAPHY, AND WE'VE TESTED SIX TOP CONTENDERS TO REVEAL THE BEST BUY

TEST BY DAN MOLD

**TAMRON 10-24MM**  
F/3.5 SP £369

**SIGMA 10-20MM**  
F/3.5 HSM £399

**TOKINA 12-28MM**  
F/4 £539

**PENTAX 12-24MM**  
F/4 £759



## HOW WE DID THE TEST

We tested the six wide-angle lenses on entry-level D-SLRs to test the handling, AF performance and image quality. We used lens test charts and real-world shooting environments to assess the optics, looking out for centre and edge sharpness, vignetting, distortion and chromatic aberration before weighing up the lenses against their price points.

## CANON 10-22MM

F/3.5-4.5 USM £479



## NIKON 10-24MM

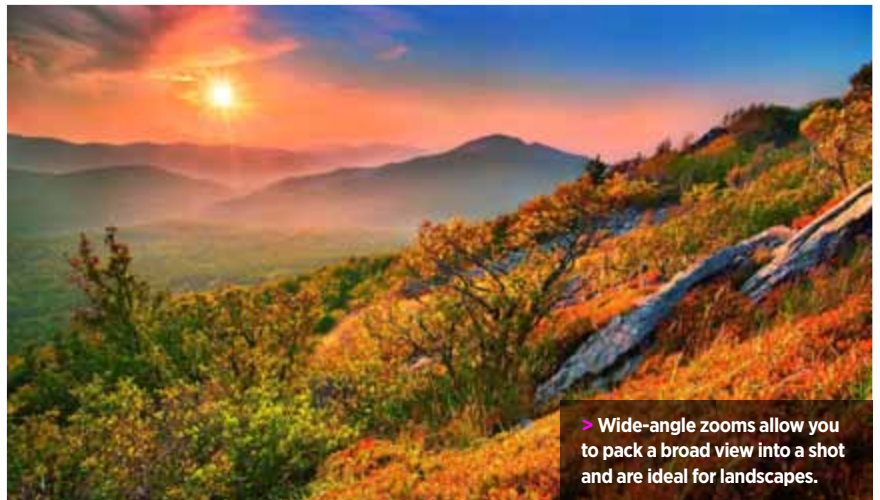
F/3.5-4.5 SWM £639

**B**ROAD VISTAS CAN be tricky to capture using the lens that came with your D-SLR. An 18-55mm kit lens lacks the viewing angle to gather a wide stretch of landscape into your frame, even at its widest setting of 18mm. If you love scenic shots, a dedicated wide-angle lens soon becomes a must-have. It will take in more of the scene in front of you, and stop you from having to inch back further to capture the view you want in shot.

We've rounded up six of the best wide-angle zooms for APS-C format

D-SLRs, ranging from £369 to £759. We've pitched three camera-brand models against three third-party lenses to find out whether it's worth sticking with your manufacturer's offering or looking further afield.

You can regard the Sigma 10-20mm f/3.5 as something of a benchmark, winning our prestigious Gold Award several times in the past. But with five keen rivals on test at different price points, Sigma's slick 10-20mm will really have to impress to maintain its position as champion.



> Wide-angle zooms allow you to pack a broad view into a shot and are ideal for landscapes.

## WHAT TO LOOK FOR

The shorter focal length is the key consideration for wider pictures, but wide-angle lenses have other important features that could influence your buying choice.

### FILTER THREAD

Look out for the filter thread so you know which of your existing filters will fit. Larger square filters are likely to cause vignetting without special adapters.

### LENS MOUNT

The lenses in this test vary so check to make sure it fits your camera before buying.



### AF MOTOR

Some wide-angle lenses employ a dedicated AF motor, and an Ultra Sonic motor provides faster focusing times.

### ZOOM AND FOCUS RINGS

These allow you to change focal length and manually focus the lens, respectively, and should operate smoothly with no play.



## CANON 10-22MM F/3.5-4.5

**T**HE CANON 10-22MM F/3.5-4.5 has a modest zoom range, with a film-equivalent of 16-35mm after factoring in the 1.6x sensor crop on Canon APS-C bodies. We found the integrated UltraSonic Motor (USM) performed remarkably well, and it was the speediest on test to snap into focus, even in low light conditions and near-silent. At 385g the Canon 10-22mm is the lightest lens on test, fitting 13 elements in 10 groups within its structure, giving superb image quality (full story on p118).

Zoom and focus rings were grippy and positive in their actions, though a little narrow. There's a focus distance window

to let you know how far away you've focused, and the closest focusing distance on offer is 24cm from the sensor plane.

The only niggles we had with the build were that the MF/AF switch is quite small and is positioned too high up along the lens barrel to reach and engage easily with your thumb.

The lens sports a filter thread of 77mm and has six non-rounded aperture blades.

With a street price of £479, the Canon 10-22mm is reasonably priced for what it offers, but a lens hood is not supplied.

That makes it the only lens on test that requires you to purchase a hood as an extra – and with a price of £30, that's a bitter pill.

### QUICKSPEC

**Street price:** £479 **Full frame or APS-C:** APS-C **Lens mounts:** Canon EF-S **Maximum Aperture:** f/3.5-4.5 **Minimum Aperture:** f/22-27 **Minimum focusing distance:** 24cm **Filter thread size:** 77mm **Dimensions:** 83.5x89.8mm **Weight:** 385g **Visit:** [www.canon.co.uk](http://www.canon.co.uk)

## NIKON 10-24MM F/3.5-4.5

**W**EARING THE DX badge, the Nikon 10-24mm f/3.5-4.5 has been designed for Nikon APS-C bodies, producing a film-equivalent zoom range of 15-36mm. Inside sits Nikon's Silent Wave Motor which performed very well. The AF is quick and quiet, though a little slower than Canon's 10-22mm at locking on to a subject. The minimum focusing distance is 24cm and it too sports a focus distance window on the top of the lens barrel.

The 10-24mm houses 14 elements in nine groups and is one of the heavier lenses on test at 460g, giving it a rugged feel. It's one of the smaller lenses though, with dimensions of

82.5x87mm. This makes it a little easier to pack and carry.

The zoom and focusing rings on the lens barrel have a positive action, and the MF switch was also well placed, though if it was a little more pronounced it would be easier to find with your eye to the camera. The M/A mode allows manual override when using autofocus.

Filters can be attached via the 77mm filter thread and seven rounded aperture blades sit inside to produce good bokeh.

But at £639, Nikon's 10-24mm is the second most expensive lens on test (and over £200 more than the Sigma 10-20mm). The image quality, while in line with others (see p118), doesn't justify this.

### QUICKSPEC

**Street price:** £639 **Full frame or APS-C:** APS-C **Lens mounts:** Nikon F **Maximum Aperture:** f/3.5-4.5 **Minimum Aperture:** f/22-29 **Minimum focusing distance:** 24cm **Filter thread size:** 77mm **Dimensions:** 82.5x87mm **Weight:** 460g **Visit:** [www.nikon.co.uk](http://www.nikon.co.uk)

**DIGITAL PHOTO THE RATINGS**

**Pros:** Fast and quiet autofocus, fantastic image quality.  
**Cons:** Small MF/AF switch, lens hood costs extra.

> FEATURES & BUILD ★★★★★  
> PERFORMANCE ★★★★★  
> IMAGE QUALITY ★★★★★  
> VALUE FOR MONEY ★★★★★  
> OVERALL SCORE ★★★★★

**DIGITAL PHOTO THE RATINGS**

**Pros:** Small build, good bokeh, focus distance window.  
**Cons:** MF switch hard to find, expensive.

> FEATURES & BUILD ★★★★★  
> PERFORMANCE ★★★★★  
> IMAGE QUALITY ★★★★★  
> VALUE FOR MONEY ★★★★★  
> OVERALL SCORE ★★★★★



## PENTAX 12-24MM F/4

**T**AILORED TO FIT THE Pentax K mount, the 12-24mm zoom has a constant f/4 aperture. It has a film equivalent range of 18-36mm, after factoring in Pentax's 1.5x sensor crop.

There's no built-in autofocus motor, so relies solely on the AF motor within the Pentax D-SLR body it's attached to. This results in a sluggish and loud autofocus. That said, the Pentax lens feels durable and rugged and the zoom and focusing rings are easy to locate. There's no MF switch on the lens barrel so this has to be done via a switch on the D-SLR body. A Quick Shift focus system allows you to fine-tune the manual focusing ring even when

you're using autofocus.

At 430g the Pentax 12-24mm f/4 has some weight behind it, and the optics consist of 13 elements in 11 groups. It's reasonably sized with dimensions of 87.5x84mm and can accommodate 77mm screw-in filters on the front of the lens. It's one of only two lenses on test not to feature a focus distance window.

With a street price of £759, the Pentax 12-24mm f/4 is the most expensive model on test, so we were keen to look closely at its image quality to see if it was worth nearly double the Sigma and Tamron offerings. It's good but not the best, the answer was no.

### QUICKSPEC

**Street price:** £759 **Full frame or APS-C:** APS-C **Lens mounts:** Pentax K **Maximum Aperture:** f/4 **Minimum Aperture:** f/22 **Minimum focusing distance:** 30cm **Filter thread size:** 77mm **Dimensions:** 87.5x84mm **Weight:** 430g **Visit:** [www.ricoh-imaging.co.uk](http://www.ricoh-imaging.co.uk)

**DIGITAL PHOTO THE RATINGS**

<p><b>Pros:</b> Solid build, quick shift focus.</p> <p><b>Cons:</b> Loud and slow AF, no focus distance window, very pricey.</p>	<p>&gt; FEATURES &amp; BUILD</p> <p>&gt; PERFORMANCE</p> <p>&gt; IMAGE QUALITY</p> <p>&gt; VALUE FOR MONEY</p> <p>&gt; OVERALL SCORE</p>	<p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p>
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## SIGMA 10-20MM F/3.5

**A**S A THIRD-PARTY lens the Sigma 10-20mm f/3.5 comes in Sigma, Canon, Nikon, Sony and Pentax mounts, with a 1.7x crop factor on Sigma bodies, 1.6x crop factor on Canon and 1.5x crop factor on Sony, Pentax and Nikon D-SLRs.

It's the only lens on test to feature a bright, f/3.5 aperture at both the wide and long ends of the zoom range.

The Hyper Sonic Motor (HSM) performed admirably and was both quiet and fast, though the focusing couldn't match the blisteringly quick speed of the Canon 10-22mm. At 520g, it is one of the heavier lenses, and it feels robust in the hand. It's also the largest lens on test with

dimensions of 87.3x88.2mm.

Despite this, its focusing and zoom rings were a little small and narrow, though they were very grippy, easy to find and well-balanced, making adjustments easy. The MF/AF switch protrudes nicely making it easy to engage when your eye is at the viewfinder. The 24cm minimum focusing distance matches others here and there's a focus distance window on the top of the barrel.

Inside you'll find its 13 lens elements in 10 groups and there's a rounded 7-bladed aperture. On the front you'll be able to attach 82mm screw-in filters.

It's very reasonably priced and this combined with its handling and quality adds up to a winner.

### QUICKSPEC

**Street price:** £399 **Full frame or APS-C:** APS-C **Lens mounts:** Sigma, Canon, Nikon, Sony, Pentax **Max Aperture:** f/3.5 **Min Aperture:** f/22 **Min focusing distance:** 24cm **Filter thread size:** 82mm **Dimensions:** 87.3x88.2mm **Weight:** 520g **Visit:** [www.sigma-imaging-uk.com](http://www.sigma-imaging-uk.com)

**DIGITAL PHOTO THE RATINGS**

<p><b>Pros:</b> Constant f/3.5 aperture, quick AF, available in five mounts, MF/AF switch easy to find.</p> <p><b>Cons:</b> A little heavy.</p>	<p>&gt; FEATURES &amp; BUILD</p> <p>&gt; PERFORMANCE</p> <p>&gt; IMAGE QUALITY</p> <p>&gt; VALUE FOR MONEY</p> <p>&gt; OVERALL SCORE</p>	<p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p> <p>★ ★ ★ ★ ★</p>
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## TAMRON 10-24MM F/3.5-4.5

**M** **ADE TO FIT** Canon, Nikon, Pentax and Sony APS-C D-SLRs, the Tamron 10-24mm f/3.5-4.5 has a film-equivalent focal length of 16-39mm on Canon or 15-36mm on Nikon, Pentax and Sony bodies.

Making use of a Super Performance (SP) AF System we found the Tamron 10-24mm f/3.5-4.5 to be speedy when autofocus, taking just a fraction of a second to lock on. It was on par with the Nikon, Sigma and Tokina autofocus systems, though the Canon 10-22mm could still find subjects a little quicker. That said, the Tamron's AF mechanism was slightly more audible than those lenses.

A 24cm minimum focusing distance matched the best here for close focusing, but a focus distance window isn't part of the build.

Weighing 406g the Tamron is light and it's compact too at 83.2x86.5mm. Inside you'll find its 12 elements in nine groups and there are seven curved aperture blades for a smooth bokeh. It feels well balanced in the hand and its zoom and focus rings are smooth to operate. The AF/MF switch is also easy to find and use.

With good image quality, the Tamron 10-24mm f/3.5-4.5 will appeal to those on tighter budgets. It performed very well, our only qualm was that the autofocus was a little noisy.

### QUICKSPEC

**Street price:** £369 **Full frame or APS-C:** APS-C Lens mounts: Canon, Nikon, Pentax, Sony **Maximum Aperture:** f/3.5-4.5 **Minimum Aperture:** f/22 **Minimum focusing distance:** 24cm **Filter thread size:** 77mm **Dimensions:** 83.2x86.5mm **Weight:** 406g **Visit:** [www.tamron.eu](http://www.tamron.eu)

## TOKINA 12-28MM F/4

**T** **HE 12-28MM F/4** from Tokina boasts the most versatile zoom on test and features a constant f/4 aperture. The 12-28mm f/4 fits Canon and Nikon bodies, with a film equivalent of 19-44.8mm and 18-42mm respectively.

The Silent Drive Module (SD-M) and DC motor offer a quiet AF performance, even if not entirely living up to the name.

Minimum focusing distance is 1cm further away than the Canon, Nikon, Sigma and Tamron models at 25cm, and a focus distance window sits on top. You can attach 77mm screw-in filters to the front of the lens and nine curved blades form the aperture diaphragm.

At 530g it's the heaviest lens on test but this lends it a tough, solid feel. The focus and zoom rings provide plenty of grip, though the zoom ring was a little stiff to operate. To switch between autofocus and manual focus you physically push or pull the focusing ring to engage Tokina's focus clutch. While easy to use, the mechanism makes it tricky to lock off the AF without nudging it slightly out of position. It works, but we preferred the MF/AF switch found on others.

Image quality revealed some chromatic aberration (see page 119). At £539, it seems steep for a lens bested for handling and performance by other, more affordable, third-party options.

### QUICKSPEC

**Street price:** £539 **Full frame or APS-C:** APS-C Lens mounts: Canon, Nikon **Maximum Aperture:** f/4 **Minimum Aperture:** f/22 **Minimum focusing distance:** 25cm **Filter thread size:** 77mm **Dimensions:** 84x90mm **Weight:** 530g **Visit:** [www.tokinalems.com](http://www.tokinalems.com)

**DIGITAL PHOTO THE RATINGS**

**Pros:** Affordable at £369, speedy AF, smooth bokeh, light and compact.  
**Cons:** Autofocus is quite noisy.

> FEATURES & BUILD ★★★★★  
> PERFORMANCE ★★★★★  
> IMAGE QUALITY ★★★★★  
> VALUE FOR MONEY ★★★★★  
> OVERALL SCORE ★★★★★

**DIGITAL PHOTO THE RATINGS**

**Pros:** Versatile 12-28mm zoom, speedy AF.  
**Cons:** Overpriced for its performance, heaviest on test.

> FEATURES & BUILD ★★★★★  
> PERFORMANCE ★★★★★  
> IMAGE QUALITY ★★★★★  
> VALUE FOR MONEY ★★★★★  
> OVERALL SCORE ★★★★★

# IMAGE QUALITY IN DEPTH

We subjected the six wide angle zooms to some rigorous tests both in the lab using test charts and outdoors in real-world scenarios. As well as testing the performance and build we had searching questions to ask of image quality. After all, there's not much point in buying a lens that performs and feels good to use if it doesn't deliver pictures you'll be really happy with. We magnified our test shots to 100% to look for lens defects such as fringing (also referred to as chromatic aberration) where colour casts are apparent on high-contrast edges. We also checked for vignetting, where the image appears darker in

the corners of the picture, and we noted the centre sharpness and corner sharpness of each lens throughout the zoom and aperture ranges. Most lenses will be at their softest at the widest apertures and sharpen up towards the middle apertures around f/8 to f/11.

Finally we checked for how evident barrel distortion was at the wide and long ends of the zoom range. This kind of distortion makes horizontal lines such as the horizon or the edges of buildings appear curved or convex, and is generally much more apparent in wide-angle lenses.

> TEST IMAGE AT 10MM



> TEST IMAGE AT 22MM



## CANON 10-22MM F/3.5-4.5

Canon's 10-22mm f/3.5-4.5 employs a Super Spectra coating to tame chromatic aberration and we were very impressed with its performance. Although there was a little fringing apparent at the corners at its wider apertures, overall it was kept to a minimum and was easy to fix in our RAW files. The 10-22mm also delivered a solid centre sharpness performance and good corner sharpness at both ends of the zoom, even when shooting at wide apertures. It also gave the sharpest corners of all lenses on test at f/11. Top marks!

IMAGE QUALITY  
★★★★★



> DETAIL AT 22MM



> DETAIL AT 10MM



## NIKON 10-24MM F/3.5-4.5

The Nikon 10-24mm f/3.5-4.5 features two Extra-low Dispersion (ED) elements in addition to three Aspherical elements, which boast high resolution and superior contrast. Interestingly though it doesn't feature Nikon's Nano Crystal Coat to cut down on internal reflections - a feature saved for Nikon's higher-end lenses. We did note a small amount of yellow and blue fringing throughout the zoom range, and the corners and centre of the pictures were a little soft at both ends of the lens when wide open, though it sharpened up considerably at f/11.

IMAGE QUALITY  
★★★★☆



> DETAIL AT 24MM



> DETAIL AT 10MM



## PENTAX 12-24MM F/4

The Pentax 12-24mm delivered strong centre and corner sharpness thanks to its two Aspherical lens elements, though it suffered from some chromatic aberration. Yellow and blue fringing was evident throughout the zoom range, but more so when using its wide f/4 aperture. If you don't mind removing the chromatic aberration using software, the Pentax offers good edge-to-edge sharpness at both ends of the zoom and even at its wide f/4 aperture. Barrel distortion was also well maintained at the wide-end, and was negligible at 24mm.

### IMAGE QUALITY



> DETAIL AT 24MM



> DETAIL AT 12MM



## SIGMA 10-20MM F/3.5

The Sigma 10-20mm f/3.5 makes use of Aspherical, Extraordinary Low Dispersion (ELD) and Special Low Dispersion (SLD) elements in addition to a super multi-layer coating. This is all designed to cut down on chromatic aberration, flare and ghosting. Even so, the corners suffered from a small amount of purple and green fringing throughout the focal length range. Centre and corner sharpness was a shade softer than the Canon and Pentax lenses, but this sharpened up considerably at the middle apertures.

### IMAGE QUALITY



> DETAIL AT 20MM



> DETAIL AT 10MM



## TAMRON 10-24MM F/3.5-4.5

Featuring Tamron's Broad Band Anti Reflex (BBAR) technology, the 10-24mm f/3.5-4.5 claims to deliver better light transmission and suppress reflections. It also makes use of Low Dispersion (LD) glass and Aspherical elements. Despite this the Tamron 10-24mm suffered from soft corners and a slightly soft centre when shooting wide open, though this sharpened up from an aperture of f/8 onwards. There was a little fringing both at the 10mm and 24mm ends of the zoom, although Tamron's 10-24mm performed very well at the middle apertures.

### IMAGE QUALITY



> DETAIL AT 24MM



> DETAIL AT 10MM



## TOKINA 12-28MM F/4

Tokina's 12-28mm f/4 features a multi-layer coating and Aspherical elements, though yellow and blue chromatic aberration was evident throughout the zoom range.

On the flip side, the Tokina delivered the sharpest performance at the corners at the wide focal length but this came at the cost of some heavy fringing. Though it sports a good zoom range, at the long end the Tokina 12-28mm revealed a drop off in the sharpness at both the centre and the corners. That said, the Tokina kept barrel distortion to an impressive minimum throughout the zoom.

### IMAGE QUALITY



> DETAIL AT 28MM



> DETAIL AT 12MM



## THE OVERALL VERDICT

**I**F YOU'RE A D-SLR user and love to pack big foregrounds and huge views into your landscapes, then one of the wide-angle zooms featured here should be at the very top of your photography wishlist.

The Tokina is a sturdy wide-angle and its focusing was snappy. But it was let down by its high price-tag and didn't include some of the features other lenses offered such as a focusing window. That said its versatile focal length was good for framing choices.

If you own a Pentax D-SLR then the 12-24mm f/4 is a tempting lens if you like to stick with own-brand optics. But it lacks some features offered by others, and even with its impressive image quality, it's hard to justify the high £759 price-tag.

Tamron's 10-24mm f/3.5-4.5 was a solid performer with a solid build quality and a good list of features. It's also lightweight and portable, though its autofocus was noisier than our winner's.

Another consistently good performance came from Nikon's 10-24mm f/3.5-4.5. This delivered a speedy AF performance and decent image quality, though at £240 more than our winner it's hard to justify paying the extra for the Nikon badge.

**“The Sigma 10-20mm f/3.5 gave great flexibility with its constant aperture through the zoom range, and it delivered some fantastic images”**

### SILVER AWARD CANON 10-22MM F/3.5-4.5 F/3.5

The Canon 10-22mm f/3.5-4.5 stood out with the fastest AF performance on test. Its image quality and build also impressed, and as the lightest lens here, the Canon 10-22mm is perfect to carry around on a day's shoot. Its price has dropped dramatically since we last tested it, though at £479, it's still £80 more than our winner.

The lens hood – included with all other models tested here – costs an extra £30, too. But if you're a Canon user with an APS-C camera and you'd like a lightweight lens that delivers a speedy AF performance, this wide zoom is the one to go for.



### GOLD AWARD WINNER SIGMA 10-20MM F/3.5

The excellent Sigma 10-20mm f/3.5 has yet again won our wide-angle group test, and scores high on value at its best-ever price of £399. It did everything the Nikon, Canon and Pentax models did, though was a fraction slower at focusing than the Canon 10-22mm.

Despite being heavy and the largest lens on test, the Sigma 10-20mm f/3.5 gave great flexibility with its constant aperture through the zoom range, and it delivered some fantastic images. It offers the fastest aperture overall, a sound optical performance, and has a great price!



SPECIFICATIONS TABLE	CANON	NIKON	PENTAX	SIGMA	TAMRON	TOKINA
PRICE	£479 	£639	£759	£399 	£369	£539
ZOOM	10-22mm	10-24mm	12-24mm	10-20mm	10-24mm	12-28mm
APERTURE	f/3.5-4.5	f/3.5-4.5	f/4	f/3.5	f/3.5-4.5	f/4
MINIMUM FOCUS	24cm	24cm	30cm	24cm	24cm	25cm
MOUNTS	Canon EF-S	Nikon F (DX)	Pentax K	Sigma, Canon, Nikon, Sony, Pentax	Canon, Nikon, Pentax, Sony	Canon, Nikon
MOTOR	USM	SWM	None	HSM	Super Performance	DC
APERTURE BLADES	6	7	8	7	7	9
LENS HOOD	No	Yes	Yes	Yes	Yes	Yes
WEIGHT	385g	460g	430g	520g	406g	530g
FEATURES & BUILD	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
PERFORMANCE	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
IMAGE QUALITY	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
VALUE FOR MONEY	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
OVERALL SCORE	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★