What are Dark Skies?

"Places where the darkness of the night sky is relatively free of interference from artificial light."

– Oxford English Dictionary, 2013

The loss of Dark Skies

"All humans, everywhere in the world and throughout history, have looked up at the sky and wondered at it. This experience is now denied to most people, because of the background light in towns and cities."

– Sir Martin Rees, Astronomer Royal

Why does light pollution matter?

1. Wastes energy and money

(It is estimated that on average 30% of all outdoor lighting is wasted unnecessarily due to poor design)

2. Detrimental to wildlife

(Thousands of migrating birds are killed each year in collisions with unnecessarily illuminated buildings)

3. Harmful to human health

(Prolonged disruption of the circadian rhythm is linked to sleep disorders, obesity, depression, diabetes, and an increase in the growth of cancer cells

4. Doesn't necessarily improve safety or reduce crime – lighting can actually make a place more unsafe

(Too much lighting can threaten security by compromising vision with glare and casting harsh shadows where criminals can hide)

Why does light pollution matter?

"A lost view of the stars extinguishes a connection with the natural world and blinds us to one of the most splendid wonders in the universe. Children who grow up without the experience of a starry night miss invaluable opportunities to speculate about big questions and to learn about the environment and larger world."

– International Dark Sky Association, 2013

What we're doing

HIGH WEALD AREA of OUTSTANDING NATURAL BEAUTY

One of England's Finest Landscapes

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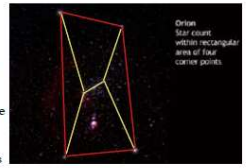
Dark Skies
Activity Card 1
Counting the stars with your eyes

Education Resource

Location: School playground; field or garden (away from bright lights)
Time: 30-40 minutes
Audience: KS2
Timing: End of January to beginning of Feburary when the moon is at its weakest and it gets dark early.
Equipment: A torch with a red light to allow you to see and move around safely, yet still preserve night vision (this can be made by covering a torch with a brown paper bag or a red balloon with the neck cut off); pencil and paper; compass to help find South-West and warm clothes!

Activity:
This activity should take around 30 minutes but you may also need another 10 minutes for you and your students' eyes to adjust to the darkness. Count the number of stars you can see within the four corner points of the Orion constellation. The easiest way to find Orion is to look in the southwest sky, the same direction that household satellite dishes face. You are looking for three bright stars close together in an almost-straight line. These stars are named Alnitak, Alnilam, and Mintaka and form Orion's belt. The two bright stars to the north (named Betelgeuse, Bellatrix) represent his shoulders and the two bright starts to the south (named Rigel and Saiph) his feet. You don't need to count these corner stars, just the stars you can see within them.



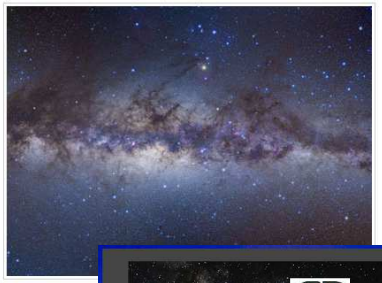
Orion, according to Greek mythology, is named after a great hunter who was honoured by Zeus by being placed among the stars following his death.

How do you work out the star count?
If you are carrying out this activity as a class it is important to remember that everyone's eyes have a slightly different degrees of sensitivity to light. It is therefore best to record the number of stars seen by each person and then calculate an average by adding up all the counts and dividing that total by the number of star counters.

Be a High Weald Hero - you can make a difference

Dark Skies: Get Involved with Star Count 2014

Why we need your help



Every year the British Astronomical Association and the Campaign to Protect Rural England organise a nationwide star count, but this year is particularly special. Between Wednesday February 26th and Saturday March 8th is National Astronomy Week – the first one since 2009 – and this is your opportunity to get involved!

It's also a chance to help us build a better understanding of the state of the night sky in the High Weal pollution and conserving the region's dark skies.

More on National Astronomy Week and events near you

Find out how dark the sky is in your area - what you

You don't need any specialist knowledge or equipment to ta spare minutes to go outside and enjoy the beautiful night s

Preserving
the
"Dark Sky"
of Wadhurst

November 2012
Wadhurst & District Astronomical Society
www.wadhurstastro.co.uk

Potential International Dark Sky Reserve

An exciting opportunity

- Become part of a very select group of protected areas – only 8 International Dark Sky Reserves in the world, and just two in the UK (Exmoor NP and Brecon Beacons NP)
- Engage and educate the public
- Reduce energy waste and save money
- Promote the High Weald and its special qualities
- Contribute to the conservation and enhancement of the natural beauty of the High Weald AONB