



Wythnos Beicio i'r Ysgol 2017

Pecyn adnoddau athrawon

Bike To School Week 2017

Teacher resources pack

England & Wales:

education@sustrans.org.uk

Sustrans, 2 Cathedral Square, College Green, Bristol, BS1 5DD

www.sustrans.org.uk/active-journeys-school-wales

Sustrans yw'r elusen sy'n ei gwneud yn haws i bobl gerdded a beicio.

Sustrans is the charity making it easier for people to walk and cycle.

Rydym yn cysylltu pobl a llefydd, yn creu cymunedau byw, yn trawsnewid y daith i'r ysgol ac yn hwyluso taith hapusach ac iachach i'r gwaith. Ymunwch â ni ar ein siwrne.

www.sustrans.org.uk

We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Join us on our journey. www.sustrans.org.uk

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1



Wythnos Beicio i'r Ysgol 2017

Fy nhaith i'r ysgol



Amser:

15-20 munud



Adnoddau:

Pensil, papur/copi
o'r bwrdd stori



Gweithgaredd unigol/grŵp:

Y ddau!

Amcan:

Bydd disgyblion yn meddwl am eu taith
i'r ysgol ac yn trafod eu profiadau.



Cynllun sesiwn:

Gofynnwch i'r disgyblion lunio bwrdd stori o'u
taith i'r ysgol – gallwch gopïo'r fersiwn dros y
dudalen i'w roi i'r disgyblion.

Maen nhw'n dechrau gyda'u tŷ yn y sgwâr
cyntaf ac yn gorffen gyda'r ysgol yn y sgwâr
olaf. Pan fydd pob un o'r disgyblion wedi
gorffen, gofynnwch iddyn nhw ysgrifennu sut y
gwnaethon nhw deithio i'r ysgol.

Gofynnwch i'r disgyblion gymharu'r lluniau yn eu
grwpiau.

Pa ran o'r daith maen nhw'n ei hoffi/ddim yn hoff
ohono? Gofynnwch iddyn nhw roi golau traffig
yng nghornel pob sgwâr i gynrychioli sut maen
nhw'n teimlo.

Gofynnwch iddyn nhw gyfrif sawl 'Gwyrdd' a
'Choch' sydd ganddyn nhw. Beth yw'r sgôr? Beth
yw sgôr y dosbarth?

Gofynnwch i'r disgyblion gwblhau'r datganiadau
canlynol a'u trafod fel dosbarth neu mewn
grwpiau.

- Y rhan GORAU o fy nhaith yw...
- Y rhan GWAETHAF o fy nhaith yw...
- Fy HOFF LE yn fy ardal leol yw..
oherwydd...

Ffynhonnell:

Yr Arolwg Stryd Mawr, ein hadnodd cwricwlwm sy'n galluogi disgyblion
i archwilio'r ardal o gwmpas eu hysgol a llunio maniffesto ar sut i wneud
eu strydoedd yn ddiogelach a gwyrddach.

Gan weithio o fewn yr ystafell ddosbarth a thu allan, mae'r Arolwg Stryd
Mawr yn cwrdd â nifer o amcanion cwricwlwm, gydag amrywiaeth o
gyfleoedd trawsgwricwlaidd a chynlluniau gwers ar gyfer pob un o'r
cenhedloedd datganoledig



www.sustrans.org.uk/bigstreetsurvey

1

Bike To School Week 2017

My journey to school



Time needed:

15-20 minutes



Resources needed:

Pencil, paper/copy of
storyboard



Solo/group activity:

Both!

Objective:

Pupils think about their journey to school
and discuss their experiences.



Session plan:

Ask the pupils to draw a storyboard of their journey to school – you can copy the version overleaf to give to pupils.

They start with their house in the first square and end with school in the last one. When all pupils have finished, ask them to write down how they travelled to school.

Ask the pupils to compare drawings in their groups.

Which part of the journey do they like/dislike?
Ask them to put a traffic light in the corner of each of the squares representing how they feel.

Ask them to count how many 'Greens' and 'Reds' they have. What is the score? What is the class score?

Ask the pupils to complete the following statements and discuss as a class or in groups.

- The BEST part of my journey is...
- The WORST part of my journey is...
- My FAVOURITE PLACE in my local area is... because...

Taken from:

The Big Street Survey, our curriculum resource which enables pupils to investigate the area around their school and create a manifesto on how to make their streets safer and greener.

Working both inside and outside the classroom, the Big Street Survey meets numerous curriculum objectives, with various cross-curriculum opportunities and lesson plans for each of the devolved nations.



www.sustrans.org.uk/bigstreetsurvey

Fy nhaiith i'r ysgol



Cartref

Blank rectangular box for drawing or writing related to home.

Blank rectangular box for drawing or writing related to home.

Blank rectangular box for drawing or writing related to home.



Ysgol

Blank rectangular box for drawing or writing related to school.

Blank rectangular box for drawing or writing related to school.

Blank rectangular box for drawing or writing related to school.

My journey to school



Home

Empty rectangular box for drawing the first part of the journey.

Empty rectangular box for drawing the second part of the journey.

Empty rectangular box for drawing the third part of the journey.

Empty rectangular box for drawing the fourth part of the journey.

Empty rectangular box for drawing the fifth part of the journey.

Empty rectangular box for drawing the sixth part of the journey.



School

Wythnos Beicio i'r Ysgol 2017

Arolwg traffig



Amser:

10-15 minutes
AM & PM



Adnoddau:

Pencil, copy of
table (overleaf)



Gweithgaredd unigol/grŵp:

Unigol

Objective:

Bydd disgyblion yn adnabod effaith teithio a thrafnidiaeth ar eu hamgylchedd lleol.



Cynllun sesiwn:

Gofyn i'r disgyblion i feddwl/gweithio mewn parau/rhannu'r ffyrdd maen nhw ac eraill yn teithio i'r ysgol. Rhestru'r syniadau ar fwrdd gwyn a'u rhannu i greu rhestr dosbarth.

Trafodwch yr agweddau cadarnhaol a negyddol sy'n gysylltiedig â'r dulliau teithio hynny mewn grwpiau bychain.

Cyflwynwch y syniad o dagfeydd cerbydau i'r dosbarth. Dangoswch luniau/fideo o'r traffig y tu allan i'r ysgol cyn/ar ôl y diwrnod ysgol i'r disgyblion.

Gofynnwch i'r disgyblion amcangyfrif y nifer o wahanol

gerbydau sy'n danfon plant yn y bore neu'n eu casglu yn y prynhawn.

Bydd y disgyblion yn defnyddio tabl syml, fel yr un a ddangosir dros y dudalen, i gofnodi'r mathau a'r nifer o geir sy'n cyrraedd yr ysgol yn ystod cyfnodau danfon a chasglu.

Dadansoddwch y data gyda'r dosbarth. Beth yw'r mwyaf poblogaidd? Lleiaf poblogaidd? Pam?

Beth allwn ni ei wneud i newid y nifer o ddisgyblion sy'n teithio'n egniïol? Cyflwynwch y **Newid Mawr** fel her ar-lein i'r dosbarth.



Taken from:


Mae Taith Ddysgu Sustrans yn gosod cwricwlwm i gyflwyno gwybodaeth a sgiliau a fydd yn datblygu arferion teithio egniïol gydol oes i bobl ifanc.

Mae'r Daith Ddysgu yn fap cwricwlwm sy'n cynnwys pum llwybr, ac mae enw gwahanol i bob un. Y themâu yw:

- Datblygu Sgiliau
- Cynllunio Teithiau
- Ymwybyddiaeth Diogelwch
- Manteision Bod yn Egniïol
- Deall Offer

Bike To School Week 2017

Traffic survey




Time needed:

10-15 minutes
AM & PM



Resources needed:

Pencil, copy of
table (overleaf)



Solo/group activity:

Solo

Objective:

Pupils will recognise the impact of travel and transport on their local environment.



Session plan:

Pupils think/pair/share the ways in which they and others travel to school. Ideas are listed on a whiteboard and then shared to create a class list.

Discuss the positives and negatives associated with those modes of transport in small groups.

Introduce the idea of vehicle congestion to the class. Show pupils images/video of traffic outside of school before/after the school day.

Ask pupils to estimate the number of different vehicles that drop off pupils in the morning or collect pupils in the afternoon.

Pupils use a simple table, like the one shown overleaf, to record the type and number of vehicles that arrive at school at drop off and pick up times.

Analyse data with the class. What is the most popular? Least popular? Why?

What could we do to change the number of pupils travelling actively? Introduce **Big Shift** as an online class challenge.



Taken from:

Sustrans' Learning Journey sets out a curriculum to introduce knowledge and skills that will develop lifelong active travel habits in young people.

The Learning Journey is a curriculum map made up of five routes, each with a different theme. The themes are:

- Developing Skills
- Journey Planning
- Safety Awareness
- Benefits of Being Active
- Understanding Equipment

Wythnos Beicio i'r Ysgol 2017

Caloriau, carbon a chyfrifiannellau



Amser:

20 munud



Adnoddau:

Cyfrifiannell, pensil,
papur



Gweithgaredd unigol/grŵp:

Y ddau!

Amcan:

Bydd disgyblion yn deall sut gall eu teithio effeithio eu hiechyd a'r amgylchedd, o ran allyriadau carbon a llosgi calorïau.

Survey:

_____ Beicio

_____ Cerdded

_____ Sgwtera/sglefrio

_____ Parcio a Rhodio/Parcio a Beicio

_____ Bws

_____ Trên/Rheilffordd Arall

_____ Car

_____ Absennol

Cyfarwyddiadau:

Cwblhewch arolwg o sut mae'r disgyblion yn eich dosbarth yn teithio i'r ysgol, gan ddefnyddio'r ffurflen uchod.

Bydd y disgyblion wedyn yn cyfrifo faint o galorïau fydden nhw'n eu llosgi pe baent yn teithio i'r ysgol ar feic, ar droed, neu sgwter yn lle car. Gallwch seilio'ch cyfrifiadau ar y ffigurau canlynol:



Beic = 563 calori fesul awr

Sgwter = 246 calori fesul awr

Cerdded = 246 calori fesul awr

Gall disgyblion hefyd gyfrifo faint o allyriadau carbon y gallent ei arbed, gan ddefnyddio'r ffigurau canlynol:



Mae ceir yn allyrru 0.30 cilogram o CO2 y filltir



Mae bysiau yn allyrru 0.18 cilogram o CO2 y filltir fesul teithiwr



Mae trenau yn allyrru 0.08 cilogram o CO2 y filltir fesul teithiwr

Sylwer: Mae'r calorïau a losgir yn dibynnu ar ffactorau niferus, yn cynnwys màs, ffitrwydd a'r tir. Gall allyriadau carbon ddibynnu yn ôl mathau penodol o gerbyd, fel car bach neu gar mawr. Mae'r ffigurau a ddefnyddiwyd uchod wedi'i seilio ar gyfar-taleddau penodol a gallwch eu defnyddio fel man cychwyn ar gyfer ymchwilio pellach.

Ffynhonnell:

Newid Mawr Sustrans, her ar-lein am ddim wedi'i bwriadu i ysgogi cymuned yr ysgol deithio'n fwy egnïol. Mae'r her yn gosod targedau unigol ar gyfer yr ysgol yn seiliedig ar sut mae disgyblion yn teithio i'r ysgol ar hyn o bryd, gan eu helpu i wneud Cam Bach, Brasgam Mawr neu Naid Enfawr er mwyn cynyddu teithio egnïol.

www.bigshifcymru.sustrans.org.uk



sustrans
JOIN THE MOVEMENT

Bike To School Week 2017

Calories, carbon & calculators



Time needed:

20 minutes



Resources needed:

Calculator, pencil, paper



Solo/group activity:

Both!

Objective:

Pupils understand how their travel can affect their health and the environment, in terms of carbon emissions and calories burned.

Survey:

_____ Cycle	_____ Walk
_____ Scoot/skate	_____ Park and Stride/Park and Cycle
_____ Bus	_____ Train/Other Rail
_____ Car	_____ Absent

Instructions:

Complete a survey of how pupils in your class travel to school, using the form above.

Pupils then work out how many calories they would burn off if they travelled to school by bike, foot or scooter instead of in a car. You can base your calculations on these figures:



Bike = 563 calories per hour

Scooter = 246 calories per hour

Walk = 246 calories per hour

Pupils can also work out how much they could save in carbon emissions, using these figures:



Cars emit 0.30 kilograms of CO₂/mile



Buses emit 0.18 kilograms of CO₂/mile per passenger



Trains emit 0.08 kilograms of CO₂/mile per passenger

Please note: Calories expended depend on numerous factors, including mass, fitness and terrain. Carbon emissions can vary according to specific types of vehicle, such as a small or large car. The figures used above are based on certain averages and you can use them as the starting point for further investigation.

Taken from:

Sustrans' Big Shift, a free-to-access online challenge designed to motivate the school community to travel more actively. The challenge sets the school individual targets based on how pupils currently travel to school, helping them make a Small Step, Big Stride or Giant Leap to increasing active travel.

www.sustrans.org.uk/bigshift www.bigshiftcymru.sustrans.org.uk



Wythnos Beicio i'r Ysgol 2017

Cyfri'r curiadau



Amser:

20-30 munud



Adnoddau:

Pensil, papur



Gweithgaredd unigol/grŵp:

Parau a grŵp

Amcan:

Bydd disgyblion yn dysgu am effaith gweithgaredd ar y galon.

Cynllun sesiwn:

Dywedwch wrth eich disgyblion y byddan nhw'n archwilio curiad y galon. Dechreuwch drwy helpu disgyblion ddod o hyd i'w pwls ar eu harddwrn chwith, ychydig o dan y bawd.

Gyda'r disgyblion yn gweithio mewn parau, bydd un yn cyfrif eu pwls tra mae'r llall yn amseru 15 eiliad ar oriawr. Lluoswch gyda phedwar i gael nifer y curiadau mewn munud. Cofnodwch a newid lle.

Nesaf, ailadroddwch y mesuriadau yn syth ar ôl un funud o weithgaredd sy'n peri i'r disgyblion fod ychydig allan o wynt (e.e. beicio ychydig neu redeg yn eu hunfan) a chofnodwch, cyn gorffwys yn llwyr am ddau funud a chofnodi'r pwls am y trydydd tro.

Cymharwch y mesuriadau. Beth sydd yn wahanol?



Yw'r disgyblion yn gwybod mai cyhyr sy'n pwmpio gwaed ac ocsigen o gwmpas y corff yw'r galon?

Eglurwch fod curiad calon arafach wrth orffwys yn awgrymu calon gryfach, gan ei fod yn gallu pwmpio mwy o waed gydag un cywasgiad. Pam fod gweithgaredd yn cyflymu curiad y galon?

Trafodwch y canfyddiadau. Pam ei bod yn well i guriad y galon ddychwelyd i lefel normal yn gyflym ar ôl ymarfer corff? Beth sy'n digwydd i'r galon os gwnawn ni fwy o weithgaredd a pha newidiadau i'r canlyniadau fydden ni'n ei ddisgwyl ar ôl sawl wythnos o weithgaredd cynyddol?

Siartiwch gyfradd calonnau'r disgyblion. Gan bwy oedd yr uchaf neu'r isaf ar ôl gweithgaredd corfforol, un pwy oedd yr isaf i ddechrau, ac un pwy wnaeth ddychwelyd i normal gyflymaf?

Ffynhonnell:

Gweithia hi Allan, cyfres o bum taflen waith thematig. Mae gan bob taflen weithgareddau syml, bachog 10, 20 a 30 munud o hyd, sy'n ysgogi gweithgaredd a thrafodaeth am deithio egnïol. Gellir ffitio'r rhain o fewn unrhyw ddiwrnod ysgol prysur heb fod angen adnoddau na pharatoadau arbennig.

Y meysydd dan sylw yw Bod yn Iach, Chwilota, Gwarchod Eich Byd, Cadw'n Ddiogel a Theithiau'r Dyfodol.

www.sustrans.org.uk/sussitout

Bike To School Week 2017

Finger on the pulse



Time needed:

20-30 minutes



Resources needed:

Pencil, paper



Solo/group activity:

Pairs & group

Objective: Pupils will learn about the effect of activity on the heart.

Session plan:

Tell pupils that they will be investigating our heart rate. Start by helping pupils find their pulse on their left wrist, just beneath the thumb.

Pupils work in pairs, one counts their pulse whilst the other times 15 seconds on a watch. Multiply by four to get beats per minute. Record and swap roles.

Next, repeat the measurements immediately after one minute of an activity that makes pupils slightly out of breath (eg a short bike ride or running on the spot) and record, before resting completely for two minutes and recording a third pulse rate.

Compare measurements. How do they differ?

Do pupils know that the heart is a muscle that pumps blood and oxygen round the body? Explain that a slower resting heart rate suggests a stronger heart, as it can pump more blood with one contraction. Why does activity raise the heart rate?

Discuss the findings. Why is it better for the heart rate to get close to normal quickly after exercise? What happens to the heart if we do more activity and what changes to the results would we expect after several weeks of increased activity?

Chart the pupils' heart rates. Who had the highest or lowest after exercise, whose was the lowest to start with and whose recovered the fastest?



Taken from:

Suss it Out, a set of five themed worksheets, each with 10-, 20- and 30-minute simple, snappy activities to inspire action and discussion on active travel. These can easily be fitted into any part of a busy school day with no special resources or preparation necessary.

The areas covered are Being Healthy, Exploring, Looking After Your World, Staying Safe and Future Journeys.

5



Wythnos Beicio i'r Ysgol 2017

Ewch amdani



Amser:

20-30 munud



Adnoddau:

Pensil, papur



Gweithgaredd unigol/grŵp:

Parau a grŵp

Amcan:

Bydd disgyblion yn datblygu sgiliau ymarferol a dysgu sut i wneud beicio a sgwtera'n fwy diogel gyda gwiriadau ac arferion syml.

Cynllun sesiwn:

Mae nifer o bobl ifanc nad ydynt yn sgwtera a beicio oherwydd eu bod nhw neu eu rhieni'n ansicr o gyflwr eu beiciau a sgwteri.

Dangoswch fideo gwiriad M ar gyfer beiciau a gwiriad L ar gyfer sgwteri Sustrans i'r disgyblion, i'w helpu i sicrhau eu bod yn ffit i'w defnyddio bob tro maen nhw'n reidio. Mae'r fideo sgwter hefyd yn cynnwys arweiniad ar sgwtera.

Mae'r fideo gwiriad M ar gael ar tinyurl.com/safetoride (mae'r fideo hon yn dri munud a 30 eiliad o hyd).

Mae'r fideo gwiriad L a sgiliau sgwter ar gael o tinyurl.com/scooterskills (mae'r gwiriad L yn dod i ben dri munud i mewn i'r fideo, a'r adran sgiliau yn 10 munud arall).

Argraffwch y taflenni Ewch Amdani, Dechrau Sgwtera a Diogel i Reidio. Gall disgyblion fynd â'r rhain adref i drafod gyda'u rhieni neu ofalwyr, ac er mwyn gwirio eu sgwteri a'u beiciau eu hunain.



Ffynhonnell:

Ewch Amdani, cyfres o daflenni a fideos gwybodaeth i'ch helpu chi ddatblygu sgiliau beicio a sgwtera. Mae hyn hefyd yn cynnwys sut i drwsio twll mewn teiar, beicio yn y gaeaf a dysgu beicio heb sadwyr mewn cyn lleied â 30 munud.



www.sustrans.org.uk/M-Check

5



Bike To School Week 2017



Get going



Time needed:

20-30 minutes



Resources needed:

Pencil, paper



Solo/group activity:

Pairs & group

Objective:

Pupils develop practical skills and learn how to make cycling and scooting safer with simple checks and practices.

Session plan:

Many young people don't scoot and cycle because they or their parents are unsure of the condition of their scooters and bikes.

Show the pupils Sustrans' M-check video for bikes and L-check for scooters, to help make sure these are roadworthy each time they ride. The scooter video also includes simple guidance for scooting.

The M-check video is available at tinyurl.com/safetoride (this video is three minutes and 30 seconds long).

The L-check and scooter skills video is available at tinyurl.com/scooterskills (the L-check ends at three minutes in the video, the skills section is another 10 minutes).

Print out the Safe To Ride Get Going and Start Scooting sheets. Pupils can take these home to discuss with their parents or carers and for checking their own scooters and bikes.



Taken from:

Get Going, a series of practical information sheets and videos to help you develop bike and scooter skills. This also includes how to mend a puncture, cycling in winter and learning to ride without stabilisers in just 30 minutes.

www.sustrans.org.uk/M-Check

