



Inspire Green Futures

KS2 Lesson Pack

from the
Inspire Sustainability team
at

**UWE
Bristol** | University
of the
West of
England

Lesson Plans and Resources for teacher delivery of “Inspire Green Futures” workshops to engage KS2 pupils with green careers and role models in the West of England.

To book these workshops, or a STEM or Climate Ambassador for your class, or enquire about consultancy or training for these resources, email engineeringourfuture@uwe.ac.uk

● **Inspire**
● **Sustainability**
● **Engineering a better future**



Inspire Green Futures is a set of top-trump style cards developed by the UWE Bristol Inspire Sustainability outreach team in collaboration with My Future My Choice.

It features 52 different green jobs in a wide variety of sectors and industries. 48 are based on real people from the West of England, with four "Future Green Job" ideas created by local children.

The workshops aim to use the role models to provide greater awareness of green jobs and pathways into those careers.

They also relate required curriculum knowledge to real-world careers, addressing several Gatsby benchmarks, and enable young people to feel positive about current and future work to address the climate crisis.

The Inspire Sustainability team also provide delivery of these workshops as well as assemblies and other STEM outreach in the West of England, run by experienced communicators and facilitators. You can enquire about delivery, as well as training or consultancy for these resources through the website below or by emailing engineeringourfuture@uwe.ac.uk

Card packs are available for purchase from our website below now!
curiosityconnections.net/green-futures/



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Curriculum Links

The Inspire Green Futures activities provide many opportunities for cross-curriculum links, as well as feed into extra-curricular learning, and provides a head-start to various KS3 learning that the pupils will encounter in the future.

We have outlined below just some of the KS2 curriculum points that Inspire Green Futures and the various optional activities can cover, though there are many more.

There are also many suggested activities and discussion points that you can use in your class based around specific cards and Science curriculum links on pages 10-19.

English (Reading and Writing)

- Retrieve, record, and present information from non-fiction texts.
- Identify purpose and audience; summarise information succinctly; use precise vocabulary for effect.

English (Spoken Language)

- Participate in discussions and debates; articulate and justify answers and opinions.

Mathematics

- Interpret and present data using bar charts, pictograms and tables; use data to draw conclusions.
- Apply mathematical reasoning to real-world contexts and sustainability issues.

Science (Working Scientifically)

- Ask questions, gather data, and identify evidence to support ideas.

Science (Living Things and Habitats)

- Recognise that environments can change and that this can pose dangers to living things.

Science (Materials and Energy)

- Identify everyday uses of materials and explore energy use sustainably.

Geography (Human and Physical)

- Understand human impact on environments, climate zones, and sustainable urban planning.

Geography (Skills and Fieldwork)

- Use maps and digital technologies to explore and present sustainable solutions.

Design & Technology

- Generate, develop, model, and communicate ideas through discussion and sketching.
- Evaluate ideas and designs based on sustainability and function.
- Apply understanding of structures, materials, and environmental impact.

Computing (Digital Literacy)

- Use technology purposefully to create and present content on sustainability themes.
- Use simulations to model and test solutions to environmental problems.

PSHE (Careers and Aspirations)

- Recognise strengths, skills, and interests and relate them to possible future careers.

PSHE (Living in the Wider World)

- Understand the importance of protecting the environment and taking action on climate change.

PSHE (Teamwork and Communication)

- Develop teamwork, communication, and resilience skills through shared problem solving.

Art & Design (Creative Expression)

- Use drawing and modelling to communicate ideas creatively about sustainability.

Short Session - Summary

The following page is a brief summary of the upcoming 1 hour lesson plan, accompanied by a comment on the purpose or intended outcome of the section.

Following this summary, is the lesson plan in more detail.

Resources, access to the digital Inspire Green Futures cards, purchasable card packs, and videos to accompany the lesson are available on curiosityconnections.net and www.youtube.com/watch?v=oqDDQ_G6Xuc

Duration	Activity	Purpose / Teaching Objective
5 minutes	"Draw a Green Job" Task	Quick starter activity to engage students and evaluate what they already understand about Green Jobs, and identify misconceptions.
5-10 minutes	What is a Green Job? Introduction and Green Jobs video	Questions and discussion about Green Jobs and how they will address the Climate and Ecological Crisis, accompanied by video showing breadth of green jobs in Bristol.
10 minutes	Meet people in Green Jobs - meet the (optional) Stem Ambassador and introduction of Inspire Green Futures cards with a 'card spotlight'.	Students meet the role model in a Green Job and hear about their role. Inspire Green Futures cards spotlight introduces them to the variety and diversity of Green jobs and people.
15 minutes	Further exploration of Inspire Green Future cards See game options on pages below	Explore role models, play games, and learn more about the diversity and variety of Green Jobs
20 minutes	Skills or Curriculum based task. Pick from options on pages below	Discover how Green Jobs relate to regular curriculum based learning
5 minutes	Session close and final discussion	Wrapping up about the session with a summary of green jobs

Short Session - Lesson Plan

Below is a more detailed Lesson Plan of the Short Session, to fill 1 hour. Of course, these are suggested timings and can be adjusted to suit the specific class.

Resources and downloads available at curiosityconnections.net/green-futures/ including Inspire Green Futures card packs available to purchase.

Activity	Time	Description	Students	Ambassador
Starter task: "Draw a Green Job"	5 min	Students given scrap paper or whiteboards and a couple of minutes to Draw a Green Job and add a word that they would associate with "Green Job". The vagueness of this instruction allows misconceptions to manifest, enabling them to be better challenged throughout session. Possible prompts: Places you might find someone in a Green job? What equipment do they use in their job? Stress that the quality of the sketch is unimportant. Brief follow-up discussion – gather ideas from the task and start to draw a larger picture of what a Green Job is.	Students are engaged quickly and are free to interpret 'Green Job' how they choose. (Perhaps in discussion with partner if possible)	
Introduction and Green Job video	5-10 min	Session Leader introduces the session and its objectives. "We are here to discover some ways that people in the West of England can make a positive difference in their careers. You will leave this session with a stronger understanding of possible Green jobs, and how your skills could be applied to make a difference!" Play "What is a Green Job" video	Students here first recognise the learning objectives for the session. Listening then interacting in discussion on what a Green Job is.	
Meet the people in Green Jobs	10 mins	Introduce Inspire Green Futures cards with a 'card spotlight' – show class a chosen card (select one similar to Green Ambassador). Distribute cards to students – encourage conversations in pairs. As they explore the cards, encourage them to select the cards they most connect with. Session Leader could do the same to encourage sharing. Introduce the Green ambassador - engage in short Q&A about their role.	Exploration of the cards; opportunity to see which jobs appeal to them Students are invited to contribute with questions	Green Ambassador gives a short introduction to their role, route to it and how it contributes to a greener future

Short Session - Lesson Plan

Activity	Time	Description	Students	Ambassador
Further exploration of Inspire Green Futures cards	15 min	Sharing of favourite cards. Invite students to play a game like Top Trumps (other game suggestions below) Session Leader roams and supports during this time, offering questions and provoking discussion about the cards and the jobs.	Students are playing and engaging with the card and the game. The additional focus of discussion is important here too. Extension tasks/game ideas for different ages are provided below.	On hand to field questions or prompt discussion where opportunity arises.
Skills or Curriculum based task <i>See range of curriculum linked tasks below</i>	20 min	This slot is available for Session Leader to teach and distribute a curriculum-linked task here. For suggestions for tasks and activities that synergise well with Green Jobs in the West of England see the range of curriculum-linked resources below	Students listen and engage with learning concept, then spend time working through the activity/task.	Session Leader may come to STEM Ambassador for comment on the context of the learning and where it might be employed in the role
Session Close and final Discussions	5 min	Session Leader re-engages the class with discussion about the final task. Students also invited to field any remaining questions to the STEM ambassador in a Q and A style. Summarise what a green job is and if time, revisit initial drawings from the starter and see how their thoughts have changed. Can serve as an evaluation and progress indicator of the session having tackled STEM career misconceptions.	Students can ask the STEM Ambassador about their job e.g. Most exciting thing you've done? Best/ worst part of the job? What does it take to be successful?	Talks about the broader impact of Green Jobs and explain why they have a great career.

Extended Session - Summary

The following page is a brief summary of the upcoming 2 hour lesson plan, accompanied by a comment on the purpose or intended outcome of the section.

Many of the elements of the 1 hour version remain, with additional content around green skills and further showcasing of inspirational role-models through the website. Aiming for a deeper discussion and stronger outcomes following the lesson.

Resources and card packs available at curiosityconnections.net/green-futures/

Duration	Activity	Purpose / Teaching Objective
5 minutes	"Draw a Green Job" Task	Quick starter activity to engage students and evaluate what they already understand about Green Jobs, and identify misconceptions.
20 minutes	What is a Green Job? Introduction and Discussion, and Green Jobs video	Questions and discussion about Green Jobs and how they will address the Climate and Ecological Crisis, accompanied by video showing breadth of green jobs in Bristol.
20 minutes	Meet people in Green Jobs - meet the (optional) Stem Ambassador and introduction of Inspire Green Futures cards	Students meet the role model in a Green Job and hear about their role. Inspire Green Futures cards distributed, students take time to read and absorb variety of cards and careers.
25 minutes	Further exploration of Inspire Green Future cards through games and a 'card showcase'	Students get familiar with cards by playing games, and learn more about the diversity and variety of Green Jobs. Introduced to examples of noteworthy cards/role models through the website.
20 minutes	Curriculum based task. Pick from options on pages below	Discover how Green Jobs relate to regular curriculum based learning
20 minutes	Introduction to the Green Skills and self-reflection of strengths	Discussion around Green Skills, and how the role-models use their skills in their career. Leading to student self-reflection of their own skills and how these then can be used to drive ambition and lead to a green career.
10 minutes	Sum up session and final discussion/evaluation	Wrapping up the session with a summary of the learning and a final chance to raise questions to STEM ambassador or explore other resources.

Extended Session - Lesson Plan

Below is a more detailed Lesson Plan of the Extended Session, to fill 2 hours. Of course, these are suggested timings and can be adjusted to suit the specific class.

Resources and downloads available at curiosityconnections.net/green-futures/ including Inspire Green Futures card packs available to purchase.

Activity	Time	Description	Students	Ambassador
Starter task: “Draw a Green Job”	5 min	Students given scrap paper or whiteboards and a couple of minutes to Draw a Green Job and add a word that they would associate with “Green Job”. The vagueness of this instruction allows misconceptions to manifest, enabling them to be better challenged throughout session. Possible prompts: Places you might find someone in a Green job? What equipment do they use in their job? Stress that the quality of the sketch is unimportant. Brief follow-up discussion – gather ideas from the task and start to draw a larger picture of what a Green Job is.	Students are engaged quickly and are free to interpret ‘Green Job’ how they choose. (Perhaps in discussion with partner if possible)	
What is a Green Job? and Green Jobs video	20 min	Session Leader introduces the session and its objectives. “We are here to discover some ways that people in the West of England can make a positive difference in their careers.” Jobs that contribute to preserving or restoring the environment and our planet are referred to as ‘green jobs’. Discuss what jobs this might refer to with the class, can they think of any examples? Discuss the importance of looking after the planet and the goal of net-zero. Are they worried about the climate? Do they have ambitions for a green job in the future? Play Green Jobs video, (approx 6 mins) Ask students to count how many green jobs are mentioned or take opportunities to pause to discuss sections further if appropriate. Invite any thoughts or questions about the video afterwards and open up discussions to the room. Recognise that a green job isn’t just conservation or gardening, but extends to many sectors of business and industry.	Students here first recognise the learning objectives for the session. Listening then interacting in discussion on what a Green Job is. Introduced to the breadth of jobs in Bristol and the surrounding area.	

Extended Session - Lesson Plan

Activity	Time	Description	Students	Ambassador
Meet people in Green Jobs - meet the (optional) Stem Ambassador and introduction of Inspire Green Futures cards	20 min	Introduce the STEM Ambassador. Briefly explain their role and how their job is 'green'. Distribute cards to students, and ask to spread them out across tables – encourage conversations in pairs. As they explore the cards, encourage them to select the cards they most connect with. Perhaps give 5 minutes to read 5 cards. Or to choose cards and try to find out how that person's job is green, then explain it to another student. Session Leader could do the same to encourage sharing. Then invite students to ask questions to the STEM ambassador about their role and how they reached their position. In a Q&A style.	Students are engaging with the cards and beginning to recognise and discuss the variety of different careers and sectors. Meeting a real-role model and recognising a relatable or interesting background or route into the career..	Give brief explanation of career and then be on hand to field questions and roam and have conversations whilst students are exploring cards.
Further exploration of Inspire Green Future cards through games and a 'card showcase'	25 mins	Session Leader asks if students noticed the skills on the cards and what actions might demonstrate those skills. Then Invite students spend 10-15 mins to play a game like Top Trumps (other game suggestions below) Session Leader roams and supports during this time, offering questions and provoking discussion about the cards and the jobs. Session Leader then shows class the Green Futures website page showing all the role-models. (curiosityconnections.net/explore-green-jobs/) Choosing several role-models to showcase and as a class explore their job. (If STEM Ambassador present, perhaps choose a card that relates to their role) Discuss how their skills might help them do their job, their pathways into the role and how their job is helping tackle climate change. (We suggest the Session Leader taking some time before the session to familiarise themselves with a few role-models in preparation to showcase their profile page.	Students are playing and engaging with the card and the game. The additional focus of discussion is important here too. Extension tasks/game ideas for different ages are provided below	Roaming, joining in with activity/game, and engaging in conversations.

Extended Session - Lesson Plan

Activity	Time	Description	Students	Ambassador
Curriculum based task. Pick from options on pages below	20 min	This slot is available for Session Leader to teach and distribute a curriculum-linked task here. For suggestions for tasks and activities that synergise well with Green Jobs in the West of England see the range of curriculum-linked resources below	Students listen and engage with learning concept, then spend time working through the activity/task.	Session Leader may come to STEM Ambassador for comment on the context of the learning and where it might be employed in the role
Introduction to the Green Skills and self-reflection of strengths	20 min	Session Leader brings students back to the cards and the Green Skills. Begins a discussion focussing on recognising that each role-model has chosen a career that suits their strengths. eg: Artist - high Creativity; Community Climate Campaigner - high Speaking etc. Then recognising that as well as strengths, all cards have skills that they're not so strong in. ie: "We are all human, and recognising our own strengths is really important! We can all use our skills to make a positive difference!" Session Leader then asks students to consider which skills would be their top skills, and ask others on their table what they think. Can extend task to asking students to use a whiteboard or similar to jot down each green skill and give themselves a rating as if they had a card. Understanding that not every skill may be a strength, but that every student has different combinations of strengths and skills that can then be used in a positive way in a green career. Students can also ask the STEM Ambassador which skills they feel they use most in their role.	Students are further becoming familiar with the cards and also beginning to link their own skills and strengths to particular careers or pathways. Growing ambition and the sense that a green role could be for them in the future.	Engaging in conversations, and also considering which skills they use most in their career and what they would consider their strengths.
Sum up session and final discussion/ evaluation	10 min	Students invited to field any remaining questions to the STEM ambassador in a Q and A style. Summarise what a green job is and if time, revisit initial drawings from the starter and see how their thoughts have changed. Can serve as an evaluation and progress indicator of the session having tackled STEM career misconceptions.		

Card Game Ideas - Inspire Green Futures



Suggestions for engaging games and activities when using the Inspire Green Futures cards.

These can be used or played by all ages, but may be particularly engaging for KS2 and/or KS1 pupils.



Top Trumps:

Shuffle and deal the cards face down to all players.

Players pick up their cards and look at their top card only. Player 1, (left of dealer) chooses and calls out their best stat (eg, creativity 90). The other players see if their card can beat this stat.

The player with the highest number wins that round and collects all cards played.

Another round is then begun by the player that won the last round.

Hands continue in this way until players are eliminated by running out of cards.

Guess Who:

One person reads out information from a card and their partner tries to guess what type of job they might have. Discuss where you think that person might work, or how it helps tackle climate change. Do you agree with the card ratings? Imagine what it's like to be them. What might be the best and worst parts of each job? What other jobs might be part of the same family? Why?

Consequences:

Old-fashioned consequences. Each player has a card. On a strip of paper, Player 1 writes name of the green job on their card, folds over and pass to partner or next player. Player 2 writes their green job name, folds and passes back. Continue folding and passing, answering the following in turn: where did they meet? What did Card 1 say to Card 2, what did Card 2 say to Card 1, what problems might they solve as a result? Once finished, open and read aloud. Compare answers with other pairs.

Card family trading:

Start with four random cards. You can swap one card with a person on your table every 30 seconds (perhaps a simple repeating timer on screen?).

Trade locally first then across the whole room. Fastest to build a full 'family' wins. Continue trading until all families are completed.

I Spy: (good with younger children)

Use the entire card pack to find all the cards that have a particular feature: eg, an animal, a laptop, a plant etc. Then set your own challenge for the next person to find amongst the cards.

Skills guess:

Students try to guess the skill values of the jobs as they are playing. Hopefully encouraging deeper thought as to what the job may involve and the skills required, and discouraging students from simply blindly playing the cards at face value with no real consideration for the jobs/cards themselves

Curriculum Linked Example Activities

There are many ways to link curriculum topics (particularly in Science and Geography) to the Green Futures cards, and by doing so, children can make real-world connections between their learning and the green jobs around them.

In these pages, we give some examples of activities and discussions that you can have with your class, based around a specific green job card and the curriculum links that can be made. These are ideas and suggestions intended to give teachers a starting point for bringing the Green Futures cards into curriculum teaching. Feel free to adapt and tailor the ideas to suit. And let us know about other ways that you use the cards in your curriculum teaching! We'd love to hear about it! Contact us at engineeringourfuture@uwe.ac.uk

Year 3 Science

Rocks

- **soil as rocks and organic matter**

Discussion: What does Mardi do? Why does he need to campaign for soil? Agree that soil is important and that it is in decline.

Give the children a context that the cleaners want to get rid of the soil in the playground/field/local park so that the school stays cleaner.

Discussion: Is this a good idea?

Activities: What is growing in soil locally, why is this important?
Research what is living in soil, why is this important? Agree as a class it is important and you want to show the rest of the school that soil is important so you decide on an activity to raise the profile of soil.
Poem, song, story, use soil to make clay models (if clay soil) or take hand prints in soil on big pieces of paper.

Mardi - Soil Campaigner



[Link to this card profile](#)

Year 4 Science

Living Things and their Habitats

- **dangers to living things**

Laura - Climate Action Researcher



[Link to this card profile](#)

Discussion: How are living things in danger? What can we do about it?

Activity: Consider a situation (preferably around the school) in which living things could be under threat, for example, a pond drying up in drought. Ask students to think about and discuss in groups what challenges to the ecosystem this might cause. Pair with a visit to a pond to better understand the living things that rely on it. How can we take action to help prevent this danger?

Look at the card, did we work like a climate action researcher? Were we good at listening? Working as a team? Problem solving?

Curriculum Linked Example Activities

Year 4 Science

Living Things and their Habitats

- dangers to living things

Activity: Find or research a local issue, decide on ways to raise awareness (or use a story about building on local fields like this one from Brislington <https://greaterbrislington.org/save-brislington-meadows/>).

Discussion: Look at the card, how would Amy encourage the local community to get involved?

Activity: Have a play 'meeting' with the people that want to build houses, the wildlife activist that is protecting local wildlife, a family that needs a home, someone that wants to keep the meadows for recreation. How can we keep the area nature rich while also looking after people that need homes?

The person being Amy needs to encourage the view of everyone while keeping her aims in mind.

Amy - Community Climate Campaigner



[Link to this card profile](#)

Living Things and their Habitats

- grouping

Sam - Grounds Supervisor



[Link to this card profile](#)

Discussion: Find where Sam works on a map.

Are we surprised that he works in a cemetery? Does he need to know about vertebrates and invertebrates?

Explain that he wants to ensure the ecosystem at Arnos Vale is as diverse as possible. How does he know what is living there? How can he look after it?

Activity: Could do a visit to the site and take part in one of their workshops linked to habitats

<https://arnosvale.org.uk/discover/learning/#education-brochure> or use photos of the site.

Use this as a context for investigating what is living in the school grounds and how this can be increased.

Curriculum Linked Example Activities

Year 4 Science

Electricity

- **constructing circuits and recognising conductors**

Discussion: Looking at Sarah's card, discuss the fact that she solves problems that come up when designing buildings.

Activity: We are going to work like Sarah today, we have a problem with our electrical circuits in our houses.

We need an extra wire to complete the circuit for the buildings on our tables (could have an almost complete circuit in a box on each table or a piece of A3 paper with the circuit on a drawn plan of a house).

How could our clients finish the circuit (foil, wood, plastic etc)? Have some materials available for the children to investigate and use. Children then advise their clients by reporting their findings.

Can also tell the clients how to insulate the material to keep them safe.

Sarah - Chief Civil Engineer



[Link to this card profile](#)

Sound

Emma - Senior Air Quality Consultant



[Link to this card profile](#)

Discussion: Look at Emma's card, and agree that this is important, nobody wants to live in a smelly place! It is important that the area is not too smelly but also sounds can be difficult to live with if they escape from the building.

Activity: The children can be given iPads (or dataloggers) and go around and see where the noisy parts of the school are, or work as Emma works and go around and listen to identify the noisy parts.

Can be recorded on a map of the school in decibels or loud/quiet, or 1-5 etc. Ensure children see we are working in the same way Emma works.

Discuss in class the noisy parts of the school and how we can improve sound proofing in school. Children can then test a range of materials to see if they can improve the sound proofing in a building. For example, it is noisy in the hall at lunch time, can we sound proof the office door to improve working environment for the staff? Where else could this work? Next to a road, in a hospital, a library, where people take exams.

Curriculum Linked Example Activities

Year 5 Science

Forces

- gravity, friction, levers

Dave - Community Energy Manager

Activity: Make a wind turbine and see if they turn in the wind.
(Opportunity to pair with Inspire Sustainability We Power our Future Wind Turbine workshop available on [Curiosity Connections website](https://www.curiosityconnections.co.uk/).)

Discussion: How do we turn this into energy? Explain that it is gears, where have we seen gears before? Generate a list. Use this lesson to explore gears <https://www.ogdentrust.com/resources/purposeful-practical-exploring-gears/> Children make the gears and investigate/observe.

So the wind turns the windmill, which turns gears to generate energy <https://www.bbc.co.uk/bitesize/articles/zwn2s82#zxbpg2p> watch the video to finish and link to the card, what science is Dave using?



[Link to this card profile](#)

Living things and their Habitats Fern - Nature Reserves Officer

- types of vertebrates and life cycles



Discussion: Look at the card, find three things that Fern does as part of her job. Collect ideas from some children. Draw attention to the fact that Fern encourages a range of wildlife in habitats. .

Activity: Give children a set of instructions for the living things they are trying to encourage. For example; Frogs need somewhere to shelter such as dense vegetation or log piles, access to clean water, a varied food source (slugs/snails/worms/small invertebrates) and algae for tadpoles to eat. Children create an area on their table for frogs to thrive, including labels. This can be drawing, writing or maybe on a computer. They could then present to a senior teacher or a site manager to convince them to consider one of the habitats.

[Link to this card profile](#)

Curriculum Linked Example Activities

Year 5 Science

Earth and Space

Glen - Transport Professor

Discussion: Read Glen's card. What does that mean to be a Professor of Future Mobility? Where might we need to travel? He imagines what transport of the future might look like. Have a discussion about one place that they might want to travel to (it can be anywhere in the world). They discuss how would they get there quickly, safely and in a way that has less impact on the environment.

Activity: In 20/30 years time, where else might we need to travel? In groups, they think creatively about how they could travel in space to make it safe, low impact, efficient. They can be creative and unusual. Draw back to Glen's job and look at the qualities.



[Link to this card profile](#)

Materials

• changes to materials

Jordan - Recycling Coordinator



[Link to this card profile](#)

Activity: This can be a quick introduction.

Give the children a range of materials/random objects. How can we sort these materials?

Sort them in anyway you can but be able to explain to the class how and why you have sorted them.

Discussion: Allow children to sort them and hear their reasonings. Why do we sort materials? Look at the card and discuss how Jordan works and the skills we were using and he uses in his work.

Curriculum Linked Example Activities

Year 6 Science

Living Things and their Habitats

- **classification**

Discussion: Sam works in Arnos Vale cemetery, protecting habitats. It is important that he knows what is living in the area. How can he tell what is living in the area? Agree that he can use identification guides. Look at Sam's profile and identify what he needs to look out for (foxes, badgers, insects, plants). How does he know that they are all living there? He identifies them, uses an identification key if necessary.

Activity: Take a range of creatures that might live in Arnos Vale and put them into groups (plant, invertebrate, vertebrate). Have a selection on the board. One person selects one, keeping it secret. Their partner tries to guess using yes/no questions (can be modelled by the teacher and a pupil beforehand if helpful, with the teacher being the questioner). Children are then shown how to create a branching database (ask a question with a Y/N answer that will split the group in half. Write the question and then two lines; one yes and one no. Move the creatures, either photos or models, and then repeat until you have one in each group). How would this be helpful to Sam?



[Link to this card profile](#)

Animals including Humans

- **circulation**



[Link to this card profile](#)

Peter - Football Sustainability Head

Discussion: Look at the card and understand what the challenges are when it comes to match days and concerts. Explain that Peter wants to use our knowledge of keeping healthy to convince people to walk or use public transport and walk.

Activity: The class uses data to explain to the public the benefits of walking. What happens in the body when you exercise? Do they have any data to show that walking impacts their heart rate? Children produce posters for Bristol City encouraging people to walk by explaining what happens to the heart rate and the impact of this on the body.

Curriculum Linked Example Activities

Year 6 Science

Light

- **straight lines and how we see**

Discussion: We are to make a costume for someone that has a specific job to do. What are the benefits to recycling materials? They can be costly to produce, either to the environment or to the humans involved in making the outfits.

One solution is to make outfits using recycled materials which means the materials will be saved from landfill.

Activity: Tell class we are to make a reflective jacket to wear when out at night, that is easily visible. Agree on an outcome for this (be easily visible from a distance) and then groups work together to test a range of materials to create a jacket that is highly visible at night.

Amelia - Founder Director



[Link to this card profile](#)

Electricity

- **symbols and varying output**

Dave - Community Energy Manager



[Link to this card profile](#)

Discussion: We know what we use electricity for at home; remind ourselves with a quick list. Look at Dave's card.

Discuss the terms renewable energy, fuel poverty and energy efficiency.

What do these mean? What is energy independence?

Look at the picture of Dave and the turbine, does this help us?

Look at a map of where Dave is (Ambition Lawrence Weston) and discuss the benefits for the community this can bring.

Curriculum Linked Example Activities

KS2 Geography

Human and Physical Geography

- the water cycle

Discussion:

What does Vijay do? Why do you think he works in water recycling?

What does that mean?

Share ideas about how water is recycled.

Teacher can use this as an elicitation activity and a context for the lesson.

Vijay - Water Recycling Operator



[Link to this card profile](#)

Geographical skills and field work Fern - Nature Reserves Officer

- use fieldwork to observe, measure, record and present



Discussion:

Identify an area of land to survey, accessible to visit.

What skills does Fern use to look after her nature reserve? Replicate some of this to be aware of the wildlife using the area and how more can be encouraged.

Activity:

Field sketches, sketch maps including paths that people can use in the school grounds, create graphs by counting flowers, for example. Conduct a wildlife survey.

Visit the [Avon Wildlife Trust website](#) to compare the species found there to the species found in the survey area.

[Link to this card profile](#)

Curriculum Linked Example Activities



Literacy

The following activities have literacy links and opportunities for cross-topic learning with writing and reading.

Card Speed Read and Bio Bullet points

Pupils pick a Green Futures Job card at random and read the card biography. Then they write 3 quick bullet points, using summarising and comprehension.

- What does this person do for their job?
- How does it help the planet/environment?
- How do they use their top skill in their job?

Curriculum Links:

Reading comprehension: Retrieve, record and present information from non-fiction.

Writing: Summarise key ideas.

Headline writing

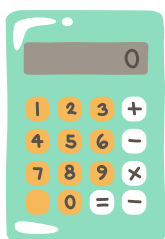
Pupils think about something that their school does to help the planet, and write a catchy headline and brief (1-2 sentence) summary.

Alternatively, write a persuasive headline about a school action that the class hope the school will adopt.

Curriculum Links:

Writing: Identify purpose/audience; summarise information succinctly.

Vocabulary: Use powerful, precise words for effect.



Maths and Numeracy

The following activities have numeracy links and opportunities for cross-topic learning with the maths curriculum

Our School's Carbon Footprint

Pupils think about things that their school does that might have a climate impact, eg, how students travel to school, cooking food at lunchtime, how waste gets recycled (or not!)

Pupils then think about which of these might be the most impactful and why, before using a research tool like an iPad or laptop to find and compare the carbon footprints of these actions.

Curriculum Links:

Data handling – collect, record, and interpret simple data

Curriculum Linked Example Activities

Classroom Energy Survey

Pupils asked to take a look around the room and list what appliances or electrical items are currently running. eg, lights, screens, heaters, chargers, etc

Groups do a quick tally chart survey of how many of each are powered on in their classroom or corridor. Then represent results as a bar chart.

Task can be extended by asking students to then consider ways that energy can be saved in the classroom.

Curriculum links:

Statistics – using tally marks, creating bar charts and pictograms; interpreting results.



Other activities and lesson suggestions

These activities can be used to continue or extend the learning across multiple sessions

My Future Green Job

A boom is predicted in green jobs needed to help protect our planet – now your pupils can design what that job could look like.

Students begin by considering what challenges there might be in the future to maintain a sustainable world. Will there be new technologies that help? What do we need to help reduce our emissions in the future?

Pupils identify local or global problems, identify how to start solving those problems and the abilities/skills a person would need to complete that mission. Individually or in pairs, students create a job profile/top trumps card for one of the future green roles that solves these challenges. Opportunity to present back to class at the end.

Requirements: Paper and pens, optional worksheet with blank Green Job for printing, slides for prompts.

Links:

- Essential Skills: Creativity, Speaking, Staying Positive, Problem solving
- Green jobs: creatively explore how the job market is, and will, expand to tackle the challenges the planet faces

Prep: Paper and pens and slide prompts, optional: Printable My Future Green Job card available on curiosityconnections.net/green-futures/

Curriculum Linked Example Activities

‘Build an Eco-City’

Begin with a brief class discussion about the key elements of a city—transportation, housing, green spaces, amenities. What elements would make their ideal city?—and how these can be reimaged to create a fairer, greener urban environment. Use concepts like sustainable transport, "15-minute neighbourhoods," and urban green spaces to inspire ideas.

Provide each group of students with a "city play mat," which represents a typical urban environment (e.g., roads, car parks, and buildings, Alternatively print one). Students will identify areas on the map that could be improved or made more sustainable.

They might propose replacing car parks with parks, adding bike lanes or public transit options, or creating mixed-use spaces that bring essential amenities closer to homes.

Next, supply materials like wooden blocks, cardboard models, LEGO, and paper tape. Students will use these to redesign their section of the city in miniature, applying their ideas to transform it into a model of a sustainable and socially inclusive space.

Wrap up the activity with a short sharing session, where each group explains their redesign, highlighting the challenges they addressed and the benefits their changes could bring.

Extension: Match Green job cards to different parts of the city adaptation. Share back at the end.

Requirements: Junk box, scrap cardboard, City play mat or Large Printed version, Wooden blocks, colouring pencils, scissors, paper tape etc

‘The West in Minecraft’

Students will use a bespoke Minecraft world modelled on Bristol to design solutions for improving urban sustainability and addressing social challenges. Begin with a discussion about key city issues, such as climate change, transport, housing, and green spaces, and introduce the concept of green jobs.

Students will explore the Minecraft city to identify areas for improvement and work individually or in teams to design and build creative solutions, such as parks, renewable energy systems, or affordable housing. Along the way, they'll match Green Job Cards to their designs, learning how various roles contribute to real-world sustainability projects.

Wrap up with a sharing session where students present their designs, explain the problems they tackled, and highlight the green jobs involved in their solutions. Encourage reflection on how their ideas could inspire real-life changes.

Requirements: Book in Inspire Sustainability team with the tablets and Minecraft worlds, (www.curiosityconnections.net)

Links:

- Curriculum - Computing
- Essential Skills: Problem Solving, Creativity

The Inspire Sustainability Team



The Inspire Sustainability team alongside the real role models that make up the card deck!

Who we are

The Inspire Sustainability team is managed by **UWE Bristol's School of Engineering**, with the aim of encouraging diversity, inclusivity and sustainability through STEM education and climate outreach.

Using curriculum-linked engineering outreach and careers support, we are connecting children to real-life, diverse role models to widen participation and aspirations for STEM and green careers.

Inspire Sustainability Workshops

All our free workshops are run by trained outreach coordinators and feature real-life STEM Ambassadors and students. We can deliver in your school, or you can visit us at the School of Engineering in our purpose-built classroom.

Most workshops can be reasonably adapted to different key stages, and timings can be flexible.

curiosityconnections.net/workshops

For more information, and to book workshops, contact us at:
engineeringourfuture@uwe.ac.uk

The **Inspire Green Futures** card and resources were produced with support and assistance by various partners shown below, as well as funding from the West of England Combined Authority.

