University of Reading

Climate Stripes Resources

Primary and secondary resources - KS2-4 multidisciplinary lesson plan

Help raise awareness of climate change in your school or community using the climate stripes.

Activity overview:
Communication of climate change is a challenge, but one of the most striking and effective tools in recent years has been the climate stripes. This visual representation of the warming of our planet was created by Professor Ed Hawkins from University of Reading, and shows no corner of the globe is immune from the effects of global warming. Stripes images for more than 200 countries, states and cities are available to download for free from the showyourstripes.info website.

People in every country can see how their home is heating and share the images, helping to start conversations about climate change. For this activity, students will explore the drivers of climate change and the impacts it is having, and design a piece of work using the climate stripes to start a conversation and raise awareness of climate change in their school or local community.

Students will dive deep into the content by researching different local or global issues that are linked to climate change and the potential impacts these might have for humans and our planet. They will explore the problems, understand the underlying causes, and investigate some of the potential solutions.

Student voice and choice: Students make decisions about the direction of their work and can choose the climate issue they want to focus on, how they want to present their work and the specific features it should have.

Reflection: We suggest that throughout the activity students engage in regular reflection, documenting their learning process, the questions they have, and the discoveries they make. They will reflect on how their understanding of local and global climate issues is evolving and how they are growing as learners.

Final product: Students will have the choice from a number of creative options to present their findings and designs in a format that best showcases their understanding of the topic and the audience.

Collaboration: Students will have opportunities for collaboration throughout the activity, which can be done either as a group or individual piece of work. They can form teams to work on different aspects of the activity such as research and creating the piece, collaborate with experts or professionals in the field (for example through the Climate Ambassadors Scheme), and share their findings and progress with their peers.
Teacher facilitation: The teacher will act as a guide and mentor, providing support and feedback as needed. The teacher will facilitate discussions and provide resources for research.

Suggested resources

For the activity students will need various resources to successfully complete their tasks. These resources can be broadly categorised into research materials, technical tools, and collaborative support:

**Research materials: **
- Access to academic and scientific articles on climate change and its impacts.
- Information on current projects related to understanding, mitigating and adapting to climate change.
- Educational resources explaining the basics of climate change

We recommend visiting our website Partnering for the planet as a good research starting point for students.

**Technical tools: **
- Software for project design and simulation (like Systems Tool Kit or Tinkercad).
- Computer access for researching, designing and presenting their projects

**Collaborative support: **
- Opportunities to interact with experts in the field of climate, such as through the Climate Ambassadors Scheme
- Platforms for team collaboration and project management.

**Creative materials: **
- Supplies for building physical models or prototypes (if applicable), including materials like cardboard, modelling clay, tape etc

Activity choice board: Help raise awareness of climate change in your school or community using the climate stripes.

Complete the **must-do research section** and choose **one other activity,** outlining how you will present your research to raise awareness of climate change using the climate stripes.

Create Your Own Adventure Game: Imagine you're a game designer! Your mission: make a super fun game that teaches everyone about climate change. Think about how players can play, learn, and help fix the issue in your game. Maybe they'll go on missions, solve puzzles, or make choices to save the day. Your game is a way to show how we can all be part of the solution. Get ready to make the most amazing game ever!	**Be a Podcast Host:** Picture yourself as the host of your very own internet radio show - that's what making a podcast is like! Grab a microphone and prepare to record an incredible episode. Discuss the importance of climate change, the problems and impacts its causing and some of the possible solutions being explored to help solve the problem. Perhaps you could even interview an expert to feature in your show! Use your storytelling voice to captivate and engage everyone listening. Let your creativity and your voice shine!	**Create Your Own Inspiring Masterpiece:** Imagine you're an artist and a scientist rolled into one! It's time to draw an amazing picture, compose some music or create a short drama piece that tells a story about climate change. Perhaps you could show how people are feeling or are impacted, or what the future could look under different climate scenarios. Show everyone how you can tell a story using creative art and science facts.
Be a Museum Curator: Imagine setting up your very own mini-museum exhibit. Create a display that showcases the climate change issue you're focusing on. You could include posters, models, fun facts, and even a mini-interactive section where visitors can learn more about climate change. Think about how museums make things interesting and educational and use those ideas for your exhibit. Invite your friends, family, or classmates to visit your exhibit and learn all about climate change. It's showtime for your creativity and knowledge!	**Must-Do Activity:** 1. Learn more about the climate stripes and climate change 2 Decide what area of climate change you want to focus on raising awareness of 3.Consider your audience: How can you engage them most effectively to get your message across? 4. Plan your project: Sketch or brainstorm your ideas on how you can use the climate stripes to raise awareness of climate	**Become a Climate Journalist:** Get ready for an awesome adventure where you'll be like a detective, exploring a problem like climate change, its impacts and its possible solutions. Your mission is to write a super cool report about this problem and its solutions! Perhaps you could highlight a climate hero, someone working to solve the problem and how they are going about it, or explore how climate change is impacting your local area. This is your chance to show off how great you are at researching, and being really creative and informative in your writing.
Be a Star Presenter: Ready to shine like a star on your computer or tablet? Create a fantastic digital show using slides or a video. In this show, you're the director and presenter! Use pictures, words, and maybe even some music to make your presentation on climate change really interesting. This is your chance to show everyone how creative and smart you are with technology and big ideas!	**Unleash Your Inner Comic Book Artist:** Step into the shoes of a comic book creator! Draw a thrilling comic strip that tells the story of climate change and how we can save the day. Bring your characters to life - maybe scientists, farmers, or even the your classmates themselves! Your comic should show the problem and how people can help. Make your drawings colourful and exciting, and don't forget those speech bubbles to tell the story. Let your artistic skills tell a story that's both fun and informative!	**Be an Engineer:** It's time to get crafty and build your very own model! Grab all sorts of cool stuff like cardboard, glue, paint, and maybe even some recycled materials. Create a model you think will help educate people about climate change, perhaps a possible climate solution such as a renewable energy or climate friendly building of the future. Let's see your awesome creation and hear your big ideas!

Suggested marking criteria

Criteria	Excellent	Good	Satisfactory	Needs improvement
Research and content understanding	Comprehensive and in-depth research; outstanding understanding of climate change, the reasons it is occurring and potential impacts	Solid research with minor gaps; good understanding of the topic.	Basic research with some gaps; understanding of the topic is adequate.	Limited or superficial research; poor understanding of the topic.
Innovation and design	Highly innovative and feasible design; shows advanced problem-solving skills.	Creative design with good feasibility; shows clear problem-solving skills.	Standard design with basic creativity; some problem-solving evident.	Design lacks innovation or feasibility; minimal problem-solving skills.
Engagement with feedback and revision	Regularly seeks and thoughtfully incorporates feedback; shows significant improvement across drafts.	Generally open to feedback and shows improvement across drafts.	Limited engagement with feedback; minimal improvements made.	Does not effectively engage with feedback or improve drafts.
Communication and presentation Skills	Exceptional clarity and organisation in presentation; effectively uses chosen media.	Clear and well-organised presentation; good use of media.	Adequate presentation but lacks some clarity or organisation.	Poor clarity and organisation; ineffective use of media.
Collaboration and teamwork	Outstanding collaboration skills; significantly enhances team dynamics and project outcome.	Good collaboration; contributes positively to the team.	Adequate collaboration; participates in team activities.	Limited collaboration; minimal contribution to the team.
Reflection and inquiry	Deep and insightful reflections; actively asks relevant, probing questions throughout the project.	Good reflections with some insight; asks appropriate questions.	Basic reflections; asks some relevant questions.	Minimal reflection; few or irrelevant questions.