**For teachers / educators**

**Lead-in**

* Depending on your learners, use the text below to create an information share gap-fill, a running dictation or a reading comprehension activity:

*Insects have been around far longer than Homo sapiens yet their importance is often overlooked because they are so miniscule and easy to forget about. However, their significance is huge and they are vital for supporting life, on land as well as below water.*

*Insects have diversified through 400 million years of the Earth’s changeable climate, but insects are responding to recent climate changes in temperature and precipitation in ways that should be of concern, for example, many species are facing extinction. Investigations indicate that climate change impacts on insects have the potential to be considerable - perhaps we should consider them the ‘canary in the coal mine’. What could this mean for Homo sapiens?*

*But why are insects so important? Insects are the most diverse lineage of multicellular organisms on the planet. Their jobs in maintaining ecosystems are extensive and involve: soil engineers, pollinators, pest controllers, decomposers and providers. It is often said that, without insects, our species would not be able to survive.*

* Discuss with your learners how insects might be relevant in the following Sustainable Development Goals (SDGs) that were adopted by all United Nations Member States in 2015. These goals are to be actioned by 2030 so let’s get learning, understanding and acting!

*“How do you think insects play a role in these Global Goals for Sustainable development (SDG)?”*

* *SDG 6: Ensure availability and sustainable management of water and sanitation for all.*
* *SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.*
* *SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss*
* Watch some clips of ‘David Attenborough life in the undergrowth BBC Earth’ on YouTube to get your learners interested and excited about insects.

The Air Warriors this month will become citizen scientists and help in gather information.

Page 2 is for making notes and page 3, when complete, is to be uploaded to [www.stemgingereducation.com](http://www.stemgingereducation.com) or emailed to info@stemgingereducation.com

**For learners**

The Air Warriors this month will gather interesting data about different insects.

The insects are in a collection at the *University of Michigan Museum of Zoology* and the information you record will be utilised by researchers around the world. It is very important that you take your job seriously and do it well. Everybody will be so grateful and you will be helping advances in science.

* Go to the webpage: <https://www.zooniverse.org/projects/jmschell/notes-from-nature-mi-bug>
* Click on ‘Register’ in the top right-hand corner and register.
* Watch the tutorial and start recording information about the insects you see photos of.
* Record as many or as few as you want to (every little bit helps).
* Choose one insect that really caught your eye and find out some more about it by doing some research online.
* Complete the following page and submit to become an Environmental Warrior!

**Final project to be emailed to:*****info@stemgingereducation.com***

Group name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many insects did you record data for): \_\_\_\_\_\_\_

Which insect really caught your eye? Why?: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Draw the insect here and tell us about it below (you will probably need to some research online):

Tell us why this insect caught your eye and what you have learned about it:

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Congratulations!

Not only are you an **Environmental Warrior** but also a **Citizen Scientist**! Your work will help scientists around the world to draw sound and solid conclusions about insects, helping them with scientific research. Thank you ☺