

Growth and enrichment tasks Ks4 Science

If you have caught up with all of your science lessons then these are a list of tasks you can do to help enrich your understanding of the science curriculum. These tasks are optional so you do not need to submit any work to your science teachers but if you need any help or support with anything then please contact us.

1) If you have access to **tassomai**, then **keep working on your daily goal**. Any progress you make this year will be carried forward to next year.

2) **Familiarise yourself with the curriculum that you are working with:**

<https://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464> . The specification contains everything that you would ever need to know for your GCSE's.

3) **Watch a science documentary:** For those with access to iplayer

<https://www.bbc.co.uk/iplayer/categories/documentaries-science-and-nature/featured> there are a range to choose from

For those with Netflix there is: Planet Earth 1 and 2, The Universe, Blue Planet 2, Pandemic.

For those with access to Disney+ there is: Cosmos: A Space Time Odyssey, Great Migrations, Continent 7, Year Million

For those with Amazon Prime: Cosmic Vistas, New Space Adventures, The Mystery of dark matter, Seeing the beginning of time and many more

4) **Research a career in science**

<https://www.stem.org.uk/stem-careers/science-careers-support> contains lots of ideas about how your science knowledge can take your life to some very lucrative and interesting opportunities.

5) **Take a virtual museum tour**

Take a virtual museum tour and write a report on what you have discovered.

Natural History museum London: A range of talks and tours are available follow the link below

https://www.nhm.ac.uk/visit/virtual-museum.html?gclid=Cj0KCQjwka_1BRCPARIsAMIUmEo0gN7kFcISmcWNaWtEGAkvrTvXV3_chOVJDibis2xyoOKU64U1EaAs3zEALw_wcB

Science Museum London

<https://www.sciencemuseum.org.uk/virtual-tour-science-museum>

Science World Vancouver A range of films to watch for free with subjects such as Coral Reefs, Dinosaurs and Space

<https://www.scienceworld.ca/online-films/>

Nasa Visit the National Aeronautics and Space Administration with a variety of virtual tours and apps

<https://www.nasa.gov/nasa-at-home-virtual-tours-and-augmented-reality>

6) **Visit a Zoo or Aquarium worldwide!** Please remember with live cams to check time zones.

National Aquarium Baltimore USA Virtual tour

<https://aqua.org/media/virtualtours/baltimore/index.html>

San Diego Zoo California USA Live animal cams

<https://kids.sandiegozoo.org/videos>

Monterey Bay aquarium California USA Live cams

<https://www.montereybayaquarium.org/animals/live-cams>

Colchester Zoo

<https://www.colchester-zoo.com/bringing-the-zoo-to-you/>

7) **Research a famous Scientist** What did they contribute to the scientific community, what adversity did they have to overcome? Write a report or create a PowerPoint on the life and works of a famous scientist

Hundreds of scientists can be found here: <https://www.famousscientists.org/list/>

8) **Cook a meal for your family.** Think about which foods in your meal contain carbohydrates, proteins, lipids/fat, and fibre. Why are these nutrients important? How could we test for them? What is happen to your meal as it travels through your digestive system?

9) Complete some science experiments at home. **THESE MUST ONLY BE COMPLETED WITH ADULT SUPERVISION.**

12 science experiments to do at home

<https://blog.kidadl.com/articles/twelve-easy-science-projects-for-teens-during-lockdown>

10) Complete some of the following science competitions.

<https://www.ase.org.uk/competitions-engage-pupils-during-lockdown>

11) Movies to watch – The Current War (free on Amazon Prime)

12) Go to Steve Backshall's home page – Live on Facebook doing animal lessons.

13) Complete some of the following fun learning activities.

<https://www.bbc.co.uk/programmes/articles/3cJHsKqmTdJV8Skn26B9y8z/learning-in-lockdown>

14) Complete some of the following Dyson science and tech challenges.

<https://www.jamesdysonfoundation.com/resources/challenge-cards.html>

15) Complete some of the following Stem Chemistry challenges.

<https://www.stem.org.uk/home-learning/secondary-chemistry>

16) Complete some Physics Practicals at home

<https://spark.iop.org/collections/marvin-and-milo>