**Year 8 Summer Term 2 – Science**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Week 1** | | | | | |
| **1st – 5th June** | **Monday** | **Tuesday** | **Thursday** | **Friday** | **Work to submit on Friday:** |
| **Biology**  **Food webs and Food Security** | Match up the keyword to their definitions.  Resource can be found on SMHW. *Complete this activity on paper or in your homework book.*  **Support can be found here:**  **<https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/1>** | Find an example of a food web for a habitat of your choice.  Read the information about pyramids of number on <https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/2>  Draw a pyramid of number to represent the longest food chain from your food web  Describe the relationship between the size and number of organisms in the food chain. Discuss what happens to the amount of energy transferred.  *Complete this activity on paper or in your homework book.* | Read the information about food security on <https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/4>  Describe the relationship between food and pollination  Farmers use fertilisers on their crops. Describe why you think they do this.  Read the information on pages 158 -59 and answer  questions A-D. Resource can be found on SMHW. *Complete this activity on paper or in your homework book.* | Read the information on <https://www.bbc.co.uk/bitesize/guides/zq4wjxs/revision/5>  Define the meanings of the following keywords:-  \* toxic  \* accumulate  Write a newspaper article the effects of mercury or DDT in the food chain  *Complete this activity on paper or in your homework book.*  *Take* the fun quiz  <https://www.bbc.co.uk/bitesize/guides/zq4wjxs/test> | **Choose which piece of work you are most proud of and submit it to your Biology teacher.** |
| 8th – 12th June | **Monday** | **Tuesday** | **Thursday** | **Friday** | **Work to submit on Friday:** |
| **Chemistry**  **Metals, Extraction and Recycling** | Research the meanings of the following words and write the definitions down.  \* Natural resource  \* Mineral  \* Ore  \* Extraction  \* Recycling  \* Electrolysis  **Support can be found here**  Use page 114-115 of Activate book 2. Instructions as how to access this resource will be on SMHW. *Complete this activity on paper or in your homework book.* | Research the following ores:  \* Iron ore  \* Aluminium ore  \* Copper ore  Include the following information:  1. What names do they have?  2. How are the metals extracted?  Watch the video of scientist Mark  <https://www.bbc.co.uk/bitesize/guides/zqwmxnb/revision/4>  Explain why different metals have different methods of extracting them from their ores.  **Support can be found here:**  <https://www.bbc.co.uk/bitesize/guides/zqwmxnb/revision/4>  *Complete this activity on paper or in your homework book.* | Read through the information on Recycling from pages 116 – 117 Activate book 2  Produce a poster for the people of Sunderland to encourage them to recycle more metals  Instructions as how to access this resource will be on SMHW. *Complete this activity on paper or in your homework book.* | Complete the questions given on the worksheet. You do NOT need to print this out.  This resource will be on SMHW  *Complete this activity on paper or in your homework book.* | **Choose which piece of work you are most proud of and submit it to your Chemistry teacher.** |
| 15th – 19th June | **Monday** | **Tuesday** | **Thursday** | **Friday** | **Work to submit on Friday:** |
| **Physics**  **Waves 1** | Write a definition for the following keywords:  \* Electromagnetic spectrum  \* Gamma ray  \* Compression  \* Transverse wave  \* Longitudinal wave  \* Superpose  \* Radio wave  \* X-ray  **Support can be found on SMHW**  *Complete this activity on paper or in your homework book.* | Use page 58 Activate 2. Explain how sound transfers energy.  Watch the video on loudspeakers  <https://www.bbc.co.uk/bitesize/topics/zw982hv/articles/zg8rxfr>  Describe how a loudspeaker works  *Complete this activity on paper or in your homework book.*  Optional activity  If you have paper cups at home and string, try making a string telephone | How good is your hearing? Listen to <https://www.youtube.com/watch?v=4G60hM1W_mk>  Research ultrasound; include:-  1. What it is  2. 3 different careers that use ultrasound  3. How ultrasound is used in that career  **Support can be found here:**  <https://www.daviddarling.info/childrens_encyclopedia/Ultrasound_For_Kids.html>  *Complete this activity on paper or in your homework book.* | Research the electromagnetic spectrum. Include:-  1. What it is  2. Uses of each part of it  **Support can be found here:**  <https://www.ducksters.com/science/physics/types_of_electromagnetic_waves.php>  Make a mnemonic to remember the order  *Complete this activity on paper or in your homework book.* | **Choose which piece of work you are most proud of and submit it to your Physics teacher or a picture of your home-made string telephone..** |
| 22nd – 26th June | **Monday** | **Tuesday** | **Thursday** | **Friday** | **Work to submit on Friday:** |
| **Biology**  **Pollination, Fertilisation and Germination** | Ask permission first.  Go into your garden or outside space and find a flower. Pick it.  Watch the instructions on the video to dissect it on  <https://www.youtube.com/watch?time_continue=16&v=493WeySyf-8&feature=emb_logo>  Or use the resource on SMHW  If you cannot do this go to <https://www.bbc.co.uk/bitesize/guides/zs7thyc/revision/1> and draw and label the parts of a flower.  State the functions of each part of the flower.  *Complete this activity on paper or in your homework book.* | Read the information  Answer questions 2 and 3  Resource can be found on SMHW.  Explain how fertilisation takes place in plants  **Support can be found here:**  <https://www.bbc.co.uk/bitesize/guides/zs7thyc/revision/3>  *Complete this activity on paper or in your homework book.* | Choose one of the following activities  1. Produce a poster to show the different ways in which seeds can be dispersed.  **Support can be found here:**  [**https://www.bbc.co.uk/bitesize/guides/zs7thyc/revision/4**](https://www.bbc.co.uk/bitesize/guides/zs7thyc/revision/4)  2. Make a spinner using the instructions from  <https://schoolgardening.rhs.org.uk/Resources/Activity/Make-a-Seed-Spinner>  Investigate the effect of changing the length of the wings on the spinner and the time it takes to land on the floor.  Record your findings in a table and write a conclusion.  *Complete your chosen activity on paper or in your homework book.* | Complete questions 1 to 4  Resource can be found on SMHW. *Complete this activity on paper or in your homework book.* | **Choose which piece of work you are most proud of and submit it to your Biology teacher.** |
| 29th – 3rd July | **Monday** | **Tuesday** | **Thursday** | **Friday** | **Work to submit on Friday:** |
| **Chemistry**  **Pollution** | Watch the video clip  <https://www.youtube.com/watch?v=mHW_Sty6jRA>  Briefly summarise the before and after scenes from lockdown and how this has happened  Watch <https://www.bbc.co.uk/bitesize/clips/zt2r6fr>  List 4 different air pollutants and draw their molecular structure  **Support can be found here:**  <https://eschooltoday.com/pollution/air-pollution/common-examples-of-air-pollutants.html>  Complete these activities  *on paper or in your homework book.* | Produce a short story for your local newspaper to explain to the people of Sunderland the health problems associated with air pollution.  **Support can be found here:**  <https://eschooltoday.com/pollution/air-pollution/common-examples-of-air-pollutants.html>    Complete these activities  *on paper or in your homework book.* | Go to <https://uk-air.defra.gov.uk/latest/measurement-summary-map?zone_id=14#summary>  Locate the North East and describe air pollution levels today. Compare them with the previous day.  Complete these activities  *on paper or in your homework book.* | Read the newspaper extract  Complete the questions.  This resource will be on SMHW Complete these activities *on paper or in your homework book.* | **Choose which piece of work you are most proud of and submit it to your Chemistry teacher.** |
| 6th – 10th  July | **Monday** | **Tuesday** | **Thursday** | **Friday** | **Work to submit on Friday:** |
| Physics  **Waves 2** | Look at the information on the worksheet and answer the questions.  This resource will be on SMHW Complete the activity *on paper or in your homework book.* | Read the information about UV on <https://kids.kiddle.co/Ultraviolet>  Produce a poster to inform the people of Sunderland the dangers of UV radiation, but also how they can be safer in the Sun.  Complete this activity  *on paper or in your homework book.* | Watch the video on waves <https://www.bbc.co.uk/bitesize/guides/z9bw6yc/video>  Complete the activity on the worksheet (you do not need to print it)  Read pages 62-63 on Activate 2. Answer questions B, 1,2 and 3  Complete this activity  *on paper or in your homework book.* | You have 2 options today:  **Option 1**  Do the following task as a piece of extended writing  Sunderland Hospital wants to put on an exhibition to show how they use X-rays. You have been asked to come up with designs for the boards. You must decide:  1. How to introduce the scientific ideas about radiation to the public  2. Explain about risks and benefits  3. How to produce attractive boards, so that people will stop and read them.  Produce a sample board.  **Support can be found here:**  <https://kids.kiddle.co/X-ray>  **Option 2**  Answer questions on page 65 of Activate 2  Complete this activity  *on paper or in your homework book.* | **Choose which piece of work you are most proud of and submit it to your Physics teacher.** |
| 13th – 17th July | **Monday** | **Tuesday** | **Thursday** | **Friday** | **Work to submit on Friday:** |
|  | Complete the activity Monster Crab.  Resource can be found on SMHW  Complete this activity  *on paper or in your homework book.* | Complete the activity Global Warming.  Resource can be found on SMHW  Complete this activity  *on paper or in your homework book.* | Complete the activity Wireless  Resource can be found on SMHW  Complete this activity  *on paper or in your homework book.* | Complete the activity Pomegranate  Resource can be found on SMHW  Complete this activity  *on paper or in your homework book.* | **Choose which piece of work you are most proud of and submit it to your Biology teacher.** |