2 Week Independent Learning plan **Week 13 and 14**

**Support contact details:**

Email general queries to: [nbaker@waseleyhills.worcs.sch.uk](mailto:nbaker@waseleyhills.worcs.sch.uk)

**Teachers email addresses in this subject area:**

Subject Leader ( Mrs Eades ) email: LEades@waseleyhills.worcs.sch.uk

Subject teacher emails:

Miss Reilly email: areilly@waseleyhills.worcs.sch.uk

Mrs Shepherd email: JShepherd@waseleyhills.worcs.sch.uk

Mrs Jackson email: TJackson@waseleyhills.worcs.sch.uk

Mr Ryde email: NRyde@waseleyhills.worcs.sch.uk

Mrs Ineson-Thomas email: AIneson-Thomas@waseleyhills.worcs.sch.uk

Monday 6th July to Wednesday 15th July

Subject: Science

Year: 9

Topic/theme: B4- Community-level systems part 2



Three stages to online learning

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| --- | --- | --- |
| **Stage One – Reading Task** | **Stage Two – Completing Tasks** | **Stage Three – Assessing your learning and feedback** |
| Read the lessons in the table below. Think about what you need to learn from the task. It may help to look at the other lessons too as this will show you where your learning is heading. | Find the resources you need. In some instances you may need to log into HomeAccess+ and find the file on the coursework drive (S). Login with your normal school username and password. Use the resource as described to complete the suggested task. Reflect on the teacher’s question.  [Click here for HomeAccess+ drive](https://facility.waseley.networcs.net/HAP/login.aspx?ReturnUrl=%2Fhap)  [Click here for help with accessing HomeAccess+](https://www.waseleyhills.worcs.sch.uk/coronavirus-independent-learning/help-for-parents-and-pupils) | At the end of the two weeks you will be set a task by your teacher on Show My Homework. This is submitted in SMHWK. This task will assess your learning and allow us to give you feedback.  These assessment tasks are optional but submitting them is very helpful for you and your teacher to understand what you have learnt. |



We are here to help you within school opening hours:

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| **Email your teacher** | **Join your teacher for a support chat session** | **Ring school reception** |
| You can now email your teacher using your Office 365 email address. You can also email Mr Baker or the Subject Leader using the contact info above (top right). | You will also receive an invite during the two week period to join an online support chat with your teacher. | Call 0121 4535211 within school hours. They will email your teacher and ask them to contact you. |

Learning tasks for this fortnight:

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| **Lesson** | **Aim:**  What you need to take from this lesson | **Resource(s) to use:**  Hyperlinks to videos etc  HomeAccess+ file location | **Suggested task:** |
| 1 | Decomposers and decay-   * State some different types of decomposers and the conditions they need to survive in. * Explain what causes things to decay and how this is relevant to food chains and nutrient cycles. | BBC Biteize- <https://www.bbc.co.uk/bitesize/guides/zg74xfr/revision/4>  Decay of food timelapse- <https://www.youtube.com/watch?v=c0En-_BVbGc>  How does decay and decomposition work?  <https://www.youtube.com/watch?v=jWMtWJyFaPU> | Put the following into positive and negative effects of decay:   1. Releases nutrients from dead organisms into soil. 2. Smells bad. 3. Prevents the world from being full of dead bodies. 4. Means we throw lots of food away. 5. Attracts flies and maggots. 6. Means we have to preserve fresh foods. 7. Puts nutrients back into the atmosphere. 8. Means we get food like stilton!   Explain 3 factors needed for decay to occur.  Using examples, describe the difference between detritivores and decomposers.  How do decomposers increase the surface area of the dead material?  How do humans make deliberate use of decomposers?  A question your teacher would have asked you at the end of this lesson is:  **Fill in the gaps…**  \_\_\_\_\_\_\_\_\_\_\_\_\_ are microscopic organisms like \_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_.  They release \_\_\_\_\_\_\_\_\_\_\_ that digest dead \_\_\_\_\_\_\_\_\_\_\_ matter. This releases  the \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ back into the \_\_\_\_\_\_\_\_\_\_ and air.  There are other larger \_\_\_\_\_\_\_\_\_\_\_\_\_ that help with decay like \_\_\_\_\_\_\_\_\_\_\_ .  They break down dead \_\_\_\_\_\_\_\_\_\_\_\_\_ into smaller pieces allowing more fungi  and bacteria to \_\_\_\_\_\_\_\_\_\_\_\_ them. These organisms are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  Bacteria  Soil  Organisms  Earthworms  Detritivores  Matter  Fungi  Digest  Nitrates  Enzymes  Carbon  Organic  Decomposers |
| 2 | The water cycle-   * To develop a greater understanding of how water travels from the oceans, to the air and land. * To develop a greater knowledge of the processes involved in the water cycle. | BBC Bitesize- <https://www.bbc.co.uk/bitesize/guides/zg74xfr/revision/3>  The water cycle video-  <https://www.youtube.com/watch?v=ncORPosDrjI>  The water cycle song-  <https://www.youtube.com/watch?v=TWb4KlM2vts> | Match the following key terms:   |  |  |  | | --- | --- | --- | | Precipitation | MM900046572.GIF | When water vapour cools and turns into clouds | | Condensation | MC900432588.PNG | Rain, hail, sleet and snow that falls from the clouds | | Evaporation | MP900427753.JPG | When the sun heats up water from the leaves of trees. | | Groundwater flow |  | When the water runs off the surface of the ground. | | Surface run-off |  | When water flows through the rocks and soil underground. | | Transpiration | MC900449051.JPG | When the sun heats up water from the sea and it goes into the air. |   **Danny the rain droplet (apply the key processes of the water cycle to tell a story)**  Explain Danny’s journey from sea to air and land around the water cycle  In your story make sure you use some of the following key terms:   * Evaporation * Transpiration * Condensation * Clouds * Precipitation * Surface water * Ground water   A question your teacher would have asked you at the end of this lesson is:  **What part(s) of the cycle would be affected?**   1. If more trees were planted. 2. If it was a hot sunny day. 3. If the ground was dry. 4. If it rained heavily. |
| 3 | The carbon cycle-   * To describe the movement of carbon in the carbon cycle * To explain factors which affect the carbon cycle | BBC Bitesize- <https://www.bbc.co.uk/bitesize/guides/zg74xfr/revision/2>  Carbon cycle video-  <https://www.youtube.com/watch?v=zrD3tMNPjXU>  Carbon cycle song-  <https://www.youtube.com/watch?v=bWaEB4BMFAQ>  Carbon cycle for kids-  <https://www.youtube.com/watch?v=xFE9o-c_pKg>  Harry Potter and the carbon cycle-  <https://www.youtube.com/watch?v=ShP5SUuTtJ0> | Define: respiration, photosynthesis and combustion  Draw a poster of the carbon cycle and include labels.    A question your teacher would have asked you at the end of this lesson is:  Each autumn, many trees lose their leaves.  Describe how carbon compounds in the leaves can be recycled so that they can  be used again by the trees. |
| 4 | The nitrogen cycle-   * Explain why plants cannot use nitrogen from the air. * Using a cycle diagram, to explain how nitrogen is recycled in the environment so that plants can use it. * Describe the role of decomposers, nitrifying bacteria, denitrifying bacteria and nitrogen-fixing bacteria | BBC bitesize- <https://www.bbc.co.uk/bitesize/guides/zg74xfr/revision/1>  The nitrogen cycle-  <https://www.youtube.com/watch?v=vZ9b5c8BOT4>  The nitrogen cycle for kids-  <https://www.youtube.com/watch?v=HOpRT8BRGtk>  The nitrogen cycle song-  <https://www.youtube.com/watch?v=TjnoR7FF3js> | What percentage of the atmosphere is nitrogen?  Why do plants and animals need nitrogen?  Define: **Assimilation**:  **Denitrification**:  **Nitrogen cycle**:  **Nitrogen fixation**:  **Legume**  **Nitrifying**  **Nitrogen-fixing**  Make a poster with labels of the nitrogen cycle.  What are the different bacteria involved in transferring the nitrogen and what do  they do?  A question your teacher would have asked you at the end of this lesson is:   1. Why do you think denitrifying bacteria might be a problem for plants? 2. How do nitrates get in to plants? What do the plants then do with the   nitrates?   1. What happens to the proteins in dead plants and animals? |
| 5 | Revision-   * Revise the content from unit B4 | Resources from the previous 4 weeks | Revise unit B4- Community level systems.  Create a revision resource (mindmap, revision cards, poster, video, song/rap, quiz)  For the following subtopics:  Ecosystems, food chains and energy transfer, food webs, parasites, and mutualists,  predator v’s prey, decomposition, water cycle, carbon cycle and nitrogen cycle  A question your teacher would have asked you at the end of this lesson is:  What are your strengths and weaknesses in this unit? |
| **How will we assess you learning?**  Years 7 and 8: Pupils will be set an interactive quiz using this information on Show My Homework or asked to submit a piece of work such as a photograph of art work.  Year 9 to 11: Pupils may be set an interactive quiz or a written task via Show My Homework. | | | |



**Need help?**

HomeAccess+ <https://facility.waseley.networcs.net/HAP/login.aspx?ReturnUrl=%2fhap> (use your normal school username and password).

Pupil and parent help page: <https://www.waseleyhills.worcs.sch.uk/coronavirus-independent-learning/help-for-parents-and-pupils>



**Fancy showing your best work off?**

You can email a photo of you doing something great, or an example of your best piece of work to your Head of Year for our celebrations assemblies when we return.

Yr 7 please email Mrs Williams at jewilliams@waseleyhills.worcs.sch.uk

Yr 8 please email Mrs Bridgeman at jbridgeman@waseleyhills.worcs.sch.uk

Yr 9 please email Mrs Bradley at kjbradley@waseleyhills.worcs.sch.uk

Yr 10 please email Mr Jones at djones@waseleyhills.worcs.sch.uk

Please keep your work organised in subjects as we are excited to see what you have achieved and reward you for it when we return.