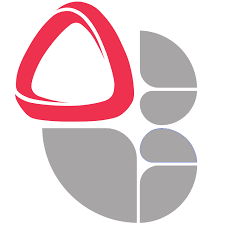
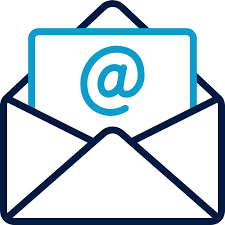
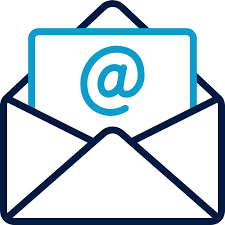
**Key Stage 3**

**Science**



**Task:** Over the next few weeks, select different challenges to complete. Choose the ones that you are most interested in, but make sure that you do a range of tasks.

If you complete a piece of work that you are proud of take a See the source image and share it with us, you can do this via:[](https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.ionos.co.uk%2Foffice-solutions%2Fcreate-an-email-address&psig=AOvVaw1W5t0aCzUmFW_hqKM2ynuI&ust=1587380919059000&source=images&cd=vfe&ved=0CAIQjRxqFwoTCIC-_e-s9OgCFQAAAAAdAAAAABAE)

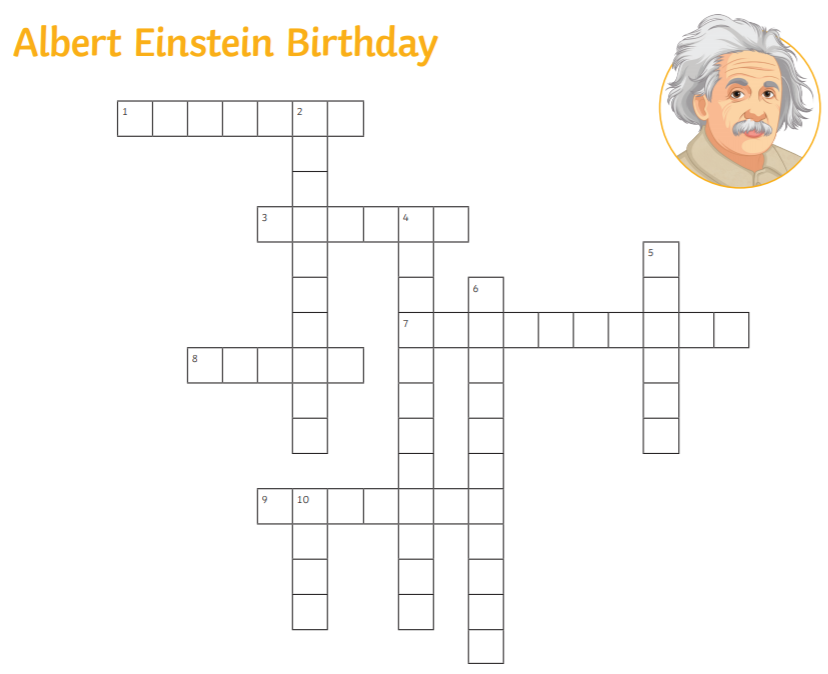
[](https://www.google.com/url?sa=i&url=https%3A%2F%2Fen.wikipedia.org%2Fwiki%2FMicrosoft_Teams&psig=AOvVaw0URlpl-CqMrNpnmUCFtDLs&ust=1587380809851000&source=images&cd=vfe&ved=0CAIQjRxqFwoTCKD-kbys9OgCFQAAAAAdAAAAABAE)[](https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.ionos.co.uk%2Foffice-solutions%2Fcreate-an-email-address&psig=AOvVaw1W5t0aCzUmFW_hqKM2ynuI&ust=1587380919059000&source=images&cd=vfe&ved=0CAIQjRxqFwoTCIC-_e-s9OgCFQAAAAAdAAAAABAE)[](https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.woodgreenacademy.co.uk%2Fclass-charts%2F&psig=AOvVaw3GOalXWWRzhT3VCJ0ZXe0q&ust=1587380866654000&source=images&cd=vfe&ved=0CAIQjRxqFwoTCICEiNes9OgCFQAAAAAdAAAAABAE)

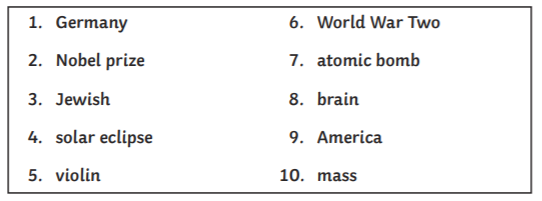
If you can’t send a picture in, keep the work safe and we will have an opportunity to showcase it when we return.

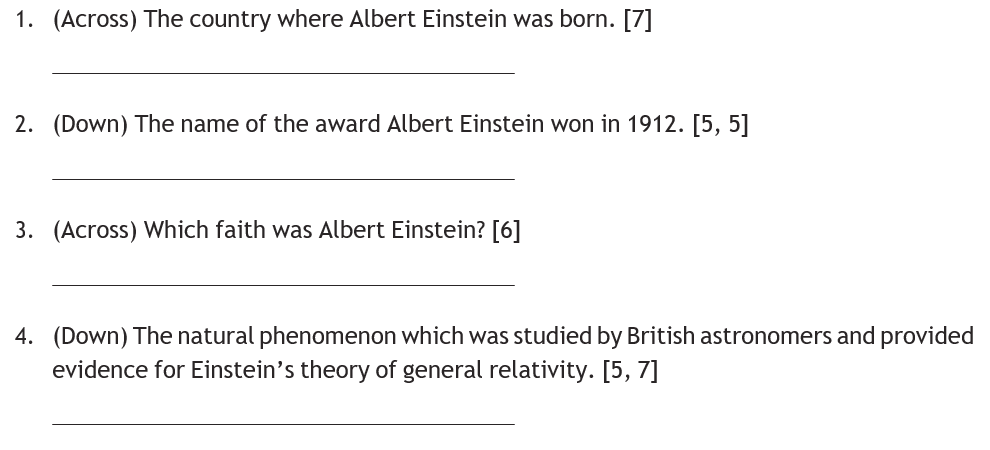
**Science Challenges**

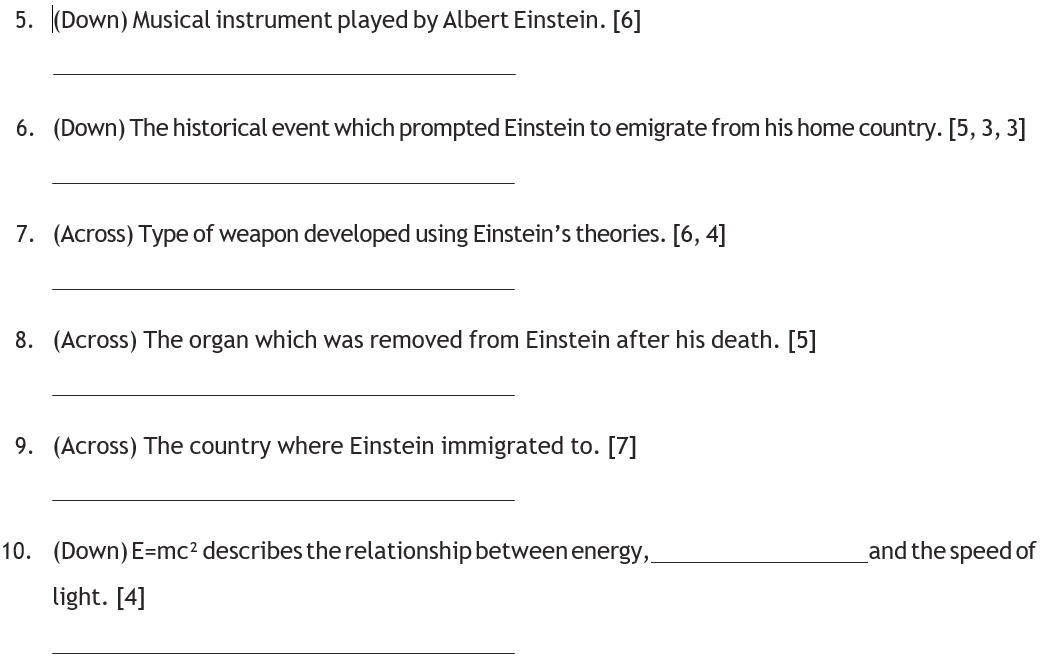
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| --- | --- | --- |
| **Challenge 1**  Complete the crossword on Einstein. Create a crossword for a biology topic. | **Challenge 2**  Learn how to spell common keywords used in the electricity topic. | **Challenge 3**  Complete the wordsearch on Einstein. Create a wordsearch based on the different contact and non-contact forces. Such as gravity and friction. |
| **Challenge 4**  Label the 9 parts of a flower. Put the labels in the correct place. | **Challenge 5**  Make a solar system mobile. You must make sure that the planets are in the correct order. Send a picture to your teacher when you are done! | **Challenge 6**  Break the code using the symbols on the periodic table. |
| **Challenge 7**  Create your own rainbow experiment.  Send a picture to your teacher when you are done! | **Challenge 8**  Create your own sugar sparklers. You can use any colours you like! Send a picture to your teacher when you are done! | **Challenge 9**  Add the correct labels to the different parts of the food chain. Then make a poster on your own food chain or food web. |
| **Challenge 10**  Label the parts of the respiratory system. Then match up the functions to the correct parts. | **Challenge 11**  Complete the revision placemats on biology, chemistry and physics. | **Challenge 12**  Make your own erupting volcano! Take a video if your volcano and send it in! |

**Challenge 1:** Complete the crossword on Albert Einstein







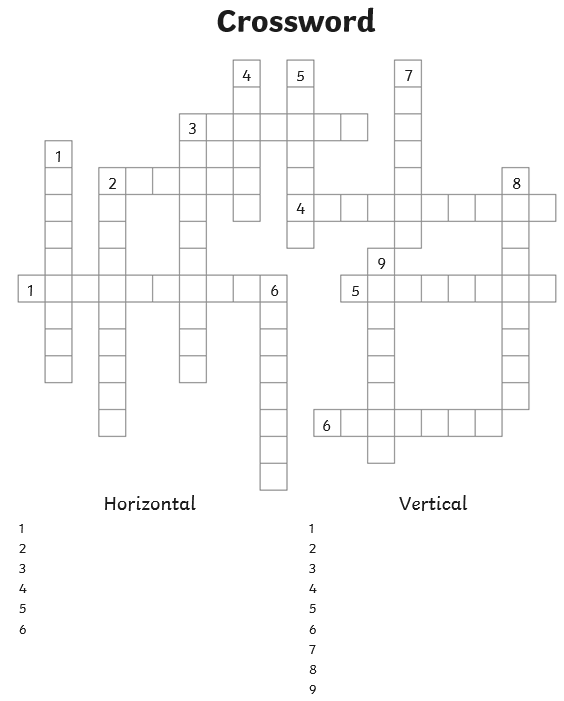


Use this template to create a crossword.

For example

– the answer could be ‘heart’

* The question could be ‘which organ pumps blood around the body’ [5 letters]



**Challenge 2:** Spellings

Learn the spellings and have a go at the test that goes with those key words

|  |  |  |
| --- | --- | --- |
| **Test 1** | **Test 2** | **Test 3** |
| 1. heart | 1. cell | 1. roots |
| 2. stomach | 2. nucleus | 2. leaves |
| 3. skin | 3. cell membrane | 3. stems |
| 4. brain | 4. mitochondria | 4. stamen |
| 5. lung | 5. ribosome | 5. stigma |
| 6. intestine | 6. cytoplasm | 6. petal |

|  |  |  |
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| **Test 4** | **Test 5** | **Test 6** |
| 1. lipid | 1. skeletal | 1. red blood cell |
| 2. carbohydrate | 2. muscular | 2. nerve cell |
| 3. fibre | 3. respiratory | 3. muscle cell |
| 4. vitamins | 4. digestive | 4. sperm cell |
| 5. minerals | 5. circulatory | 5. root hair cell |
| 6. protein | 6. reproductive | 6. palisade cell  **twinkl.com** |

**Spelling Test 1**

1. The \_\_\_\_\_\_\_\_\_\_ pumps blood around the body.
2. The \_\_\_\_\_\_\_\_\_\_\_\_\_ holds and digests food.
3. The human body is covered with \_\_\_\_\_\_.
4. Our thoughts are controlled by our \_\_\_\_\_\_\_\_.
5. The \_\_\_\_\_\_\_\_ is the site of gas exchange.
6. The organ that absorbs nutrients from food is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Spelling Test 2**

1. The human body is made up of lots of \_\_\_\_\_\_.
2. A controls the activities of a cell.
3. Each cell is surrounded by a \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_, it controls what enters and leaves a cell.
4. Respiration occurs and releases energy in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Proteins are made by the \_\_\_\_\_\_\_\_\_\_\_\_.
6. In the \_\_\_\_\_\_\_\_\_\_\_\_ chemical reactions occur.

**Spelling Test 3**

1. In a plant the \_\_\_\_\_\_\_\_\_ take up water form the soil.
2. A plant needs light to produce food, the \_\_\_\_\_\_\_\_\_ absorb the light.
3. The \_\_\_\_\_\_\_\_ transports water and sugar throughout the plant.
4. The \_\_\_\_\_\_\_\_\_ is the male reproductive organ of a plant.
5. The \_\_\_\_\_\_\_\_\_ is the female reproductive organ of a plant.
6. To attract an insect to the plant they have bright \_\_\_\_\_\_\_\_\_\_.

**Spelling Test 4**

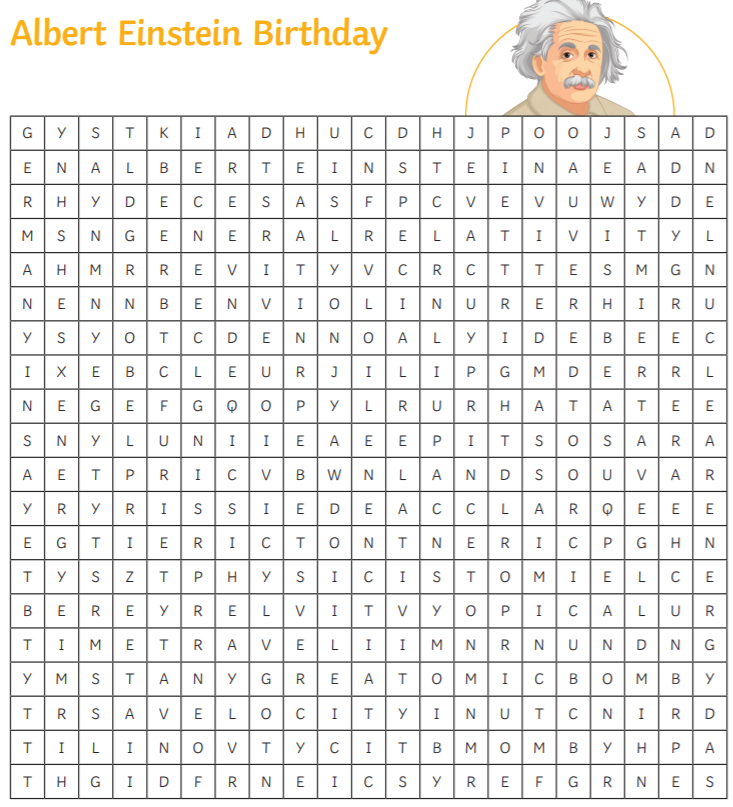
1. \_\_\_\_\_\_\_\_\_\_ are also known as fats, can be found in foods such as chocolate.
2. Bread contains \_\_\_\_\_\_\_\_\_\_\_\_\_, its provides energy to the body.
3. \_\_\_\_\_\_\_ helps food pass through the digestive system.
4. \_\_\_\_\_\_\_\_\_\_ can be found in fruit and vegetables.
5. \_\_\_\_\_\_\_\_\_\_\_ can be found in fruit and vegetables.
6. \_\_\_\_\_\_\_\_\_\_\_ helps repair muscle and can be found in meat.

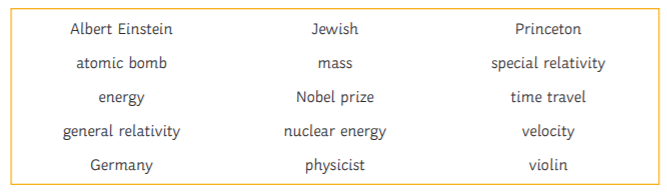
**Spelling Test 5**

1. A body must have a \_\_\_\_\_\_\_\_\_\_\_ system in order to stand.
2. For a body to move it must have a \_\_\_\_\_\_\_\_\_\_\_\_\_ system.
3. Air is taken in to the body and removed from the body through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ system.
4. Food is broken down and nutrients are absorbed by the \_\_\_\_\_\_\_\_\_\_\_\_\_ system.
5. Blood, oxygen and nutrients are pumped round the body through the \_\_\_\_\_\_\_\_\_\_\_ system .
6. The \_\_\_\_\_\_\_\_\_\_ system allows an organism to reproduce.

**Spelling Test 6**

1. Oxygen is carried around the body by a \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_.
2. A \_\_\_\_\_\_\_\_ \_\_\_\_\_ will carry an electrical signal around the body.
3. \_\_\_\_\_\_\_\_ \_\_\_\_\_ are held together in bundles.
4. To fertilise an egg the \_\_\_\_\_\_\_\_ \_\_\_\_\_ will swim towards it.
5. A plant absorbs water from the soil through the \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_\_\_\_.
6. Plants carry out photosynthesis, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ carries out that process.

**Challenge 3:** Complete the wordsearch and create a wordsearch on forces



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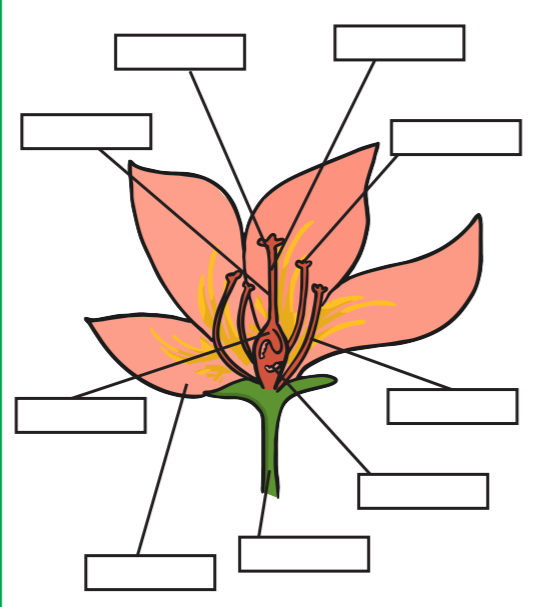
Write your word list here:

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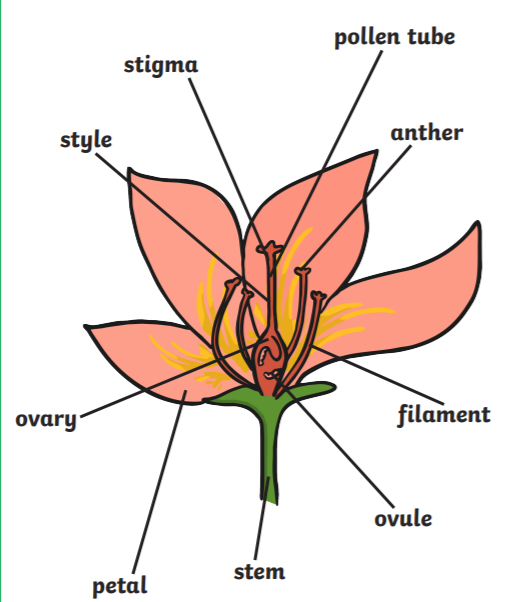
**Challenge 4:** Label the diagram of the flower.

Use these words to help:

Stigma, style, anther, ovary, petal, pollen tube, filament, ovule, stem

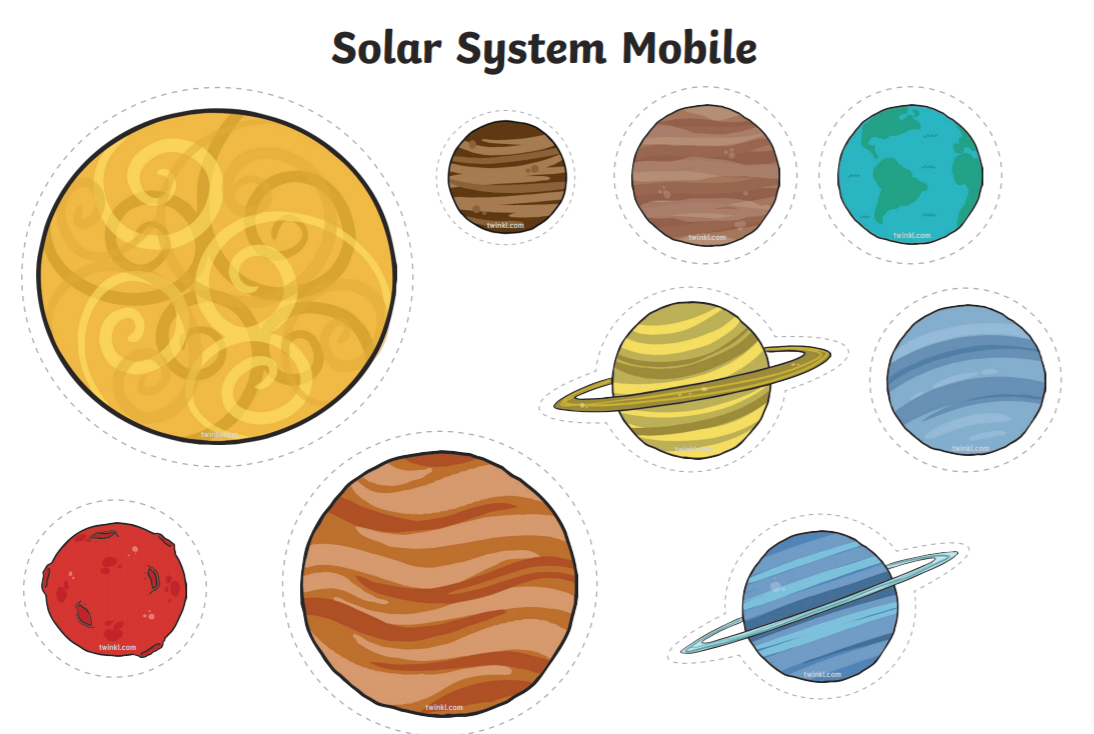


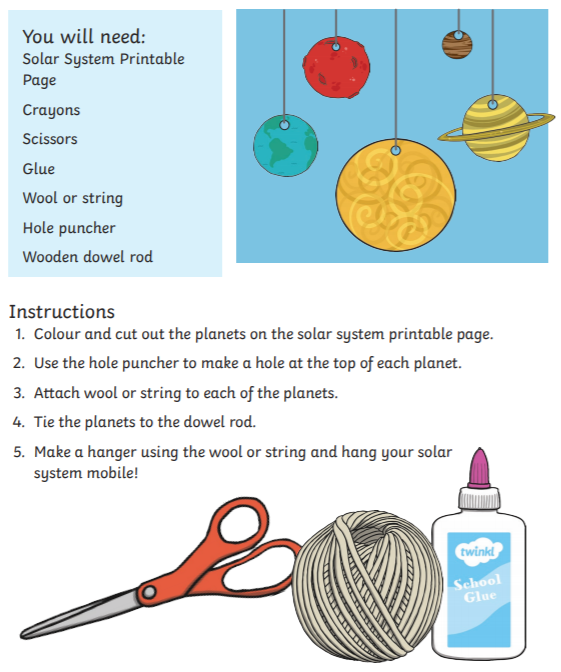
**Answers**



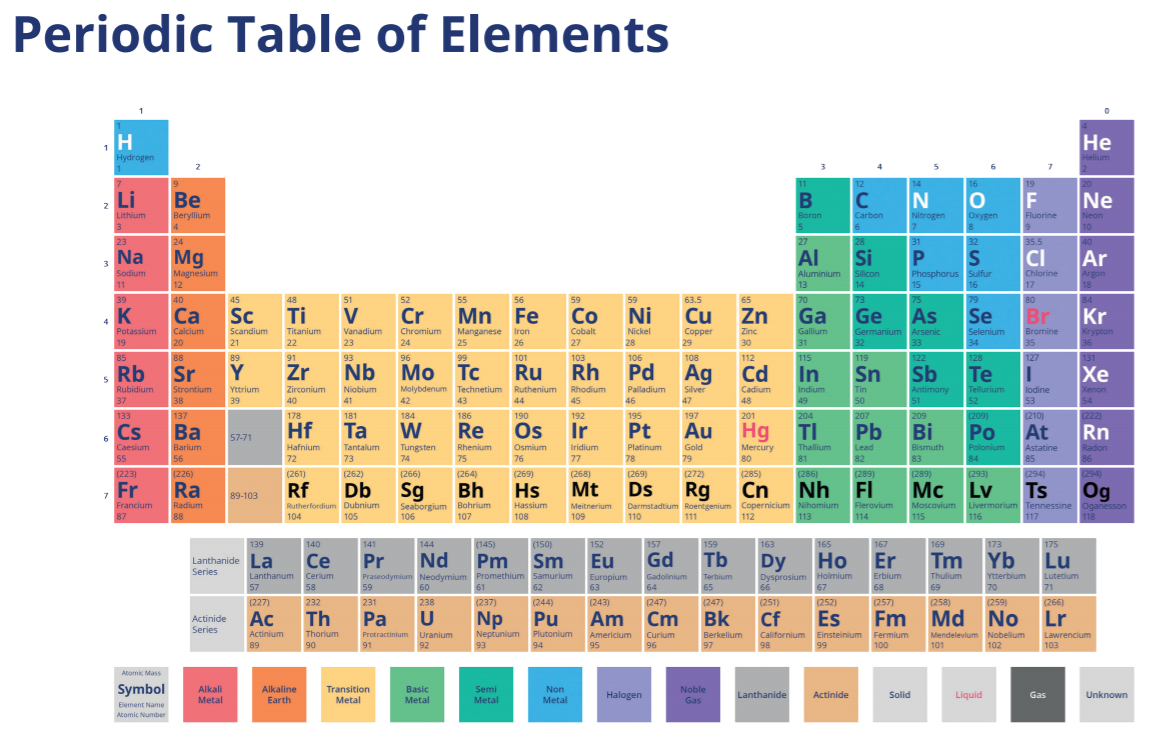
**Challenge 5: Make a solar system mobile**

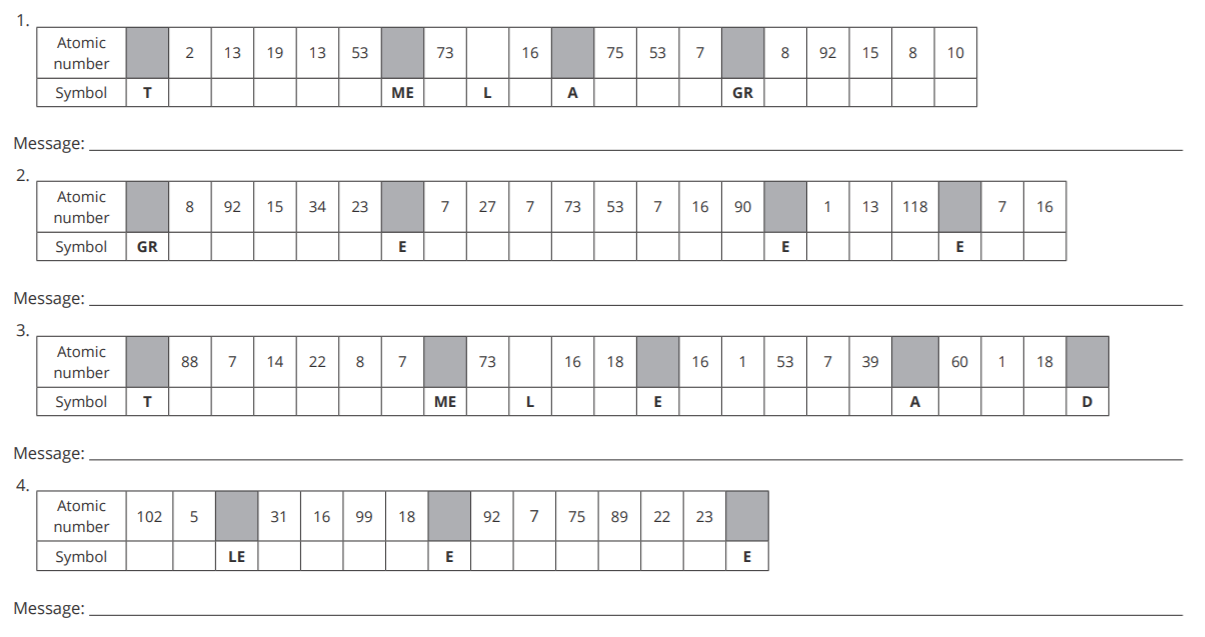
**3**

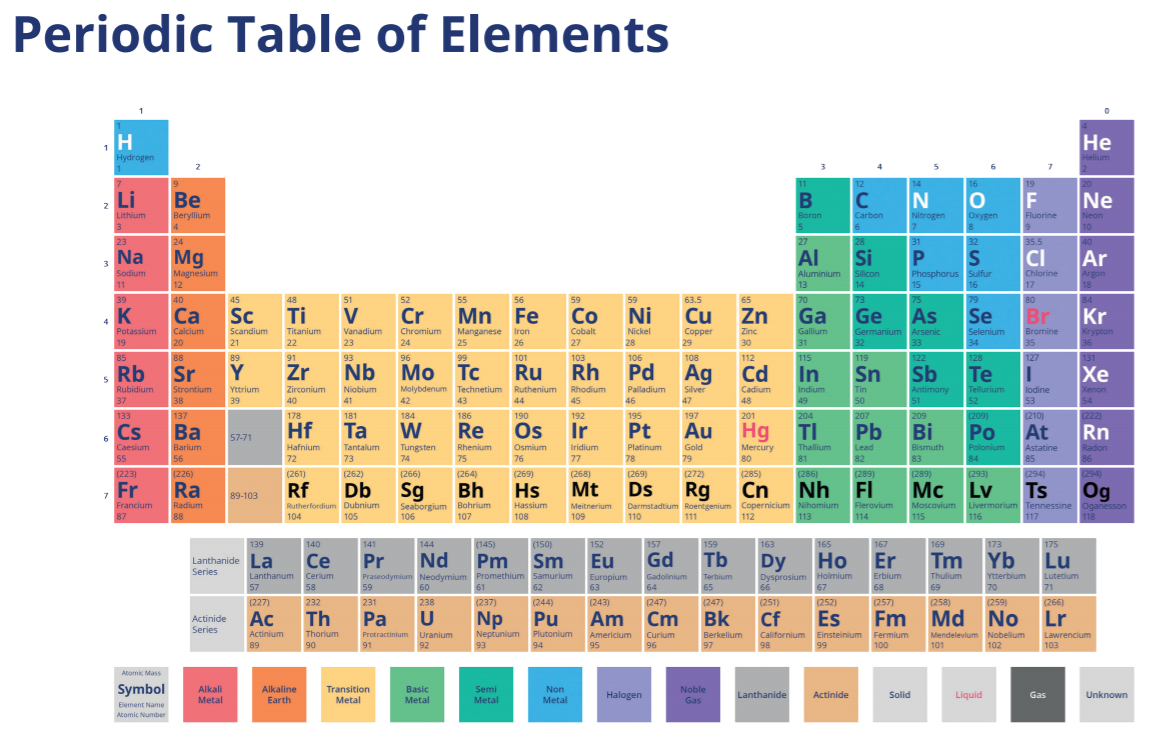
**4 6**



**Challenge 6: Break the code, find the atomic number on the periodic table and write down the symbol!**





**Extra challenge: Create your own secret messages using the periodic table**

1. Code:

Message:

1. Code

Message:

1. Code:

Message:

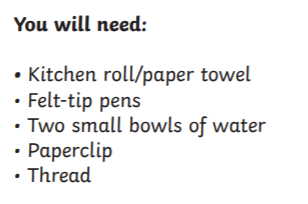
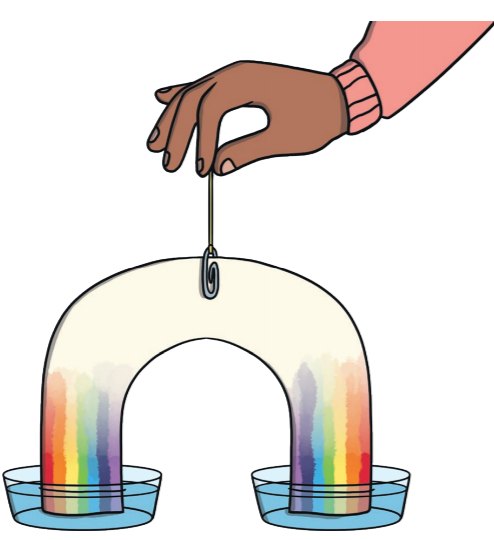
1. Code:

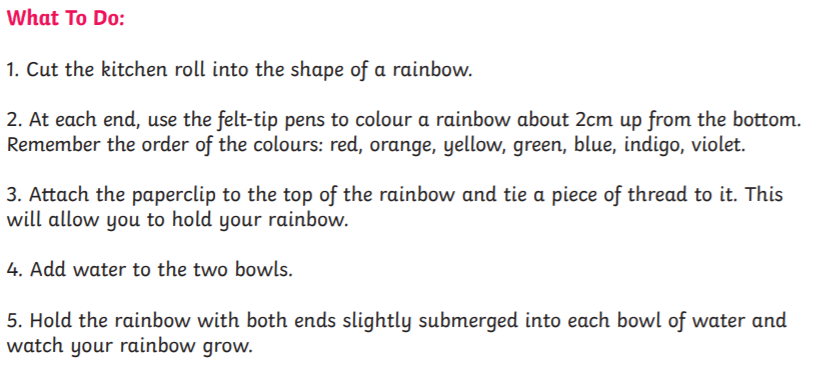
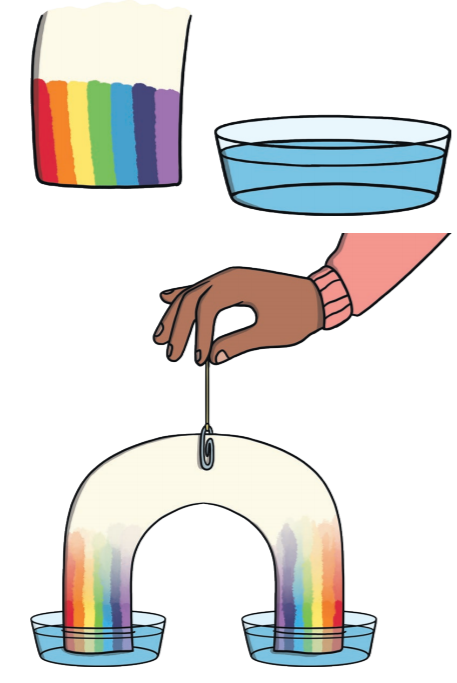
Message:

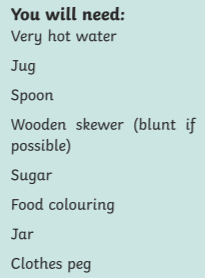
1. Code:

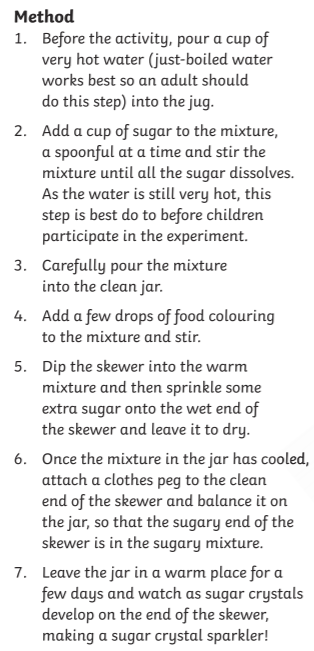
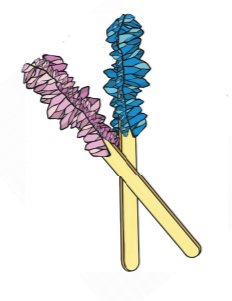
Message:

**Challenge 7: Growing a rainbow experiment**



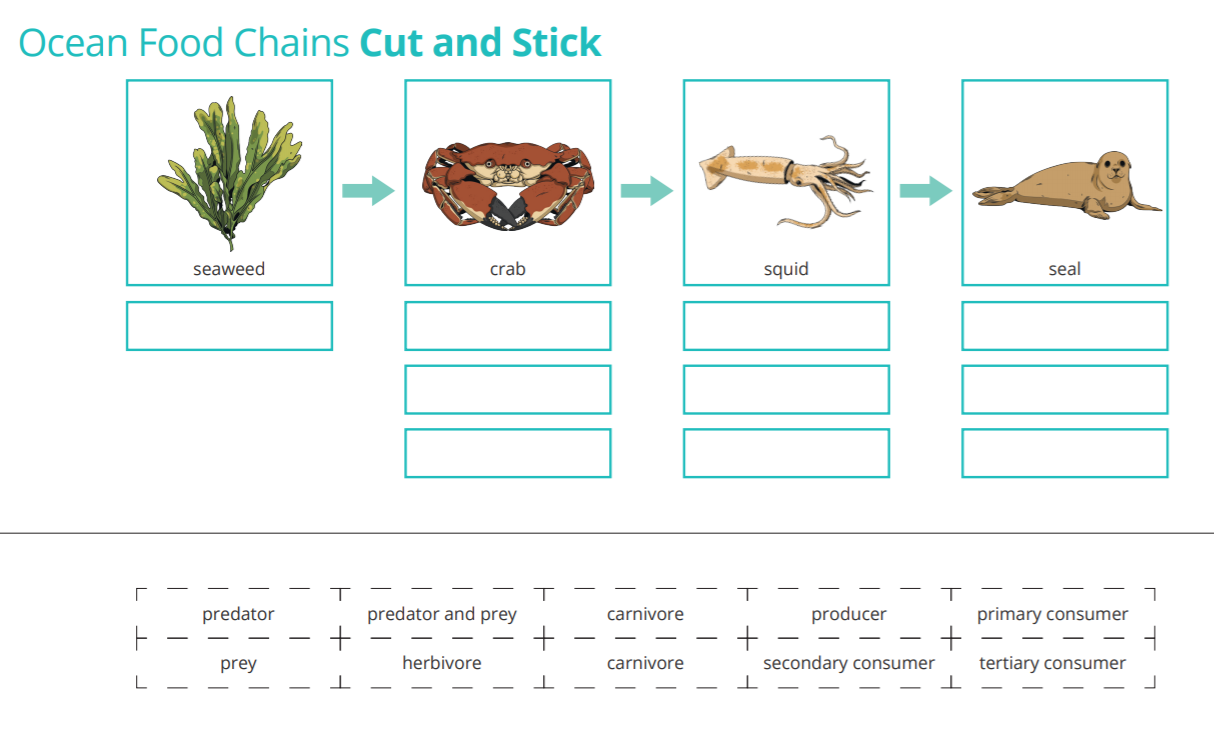


**Challenge 8: Create your own sugar sparklers!**



**Please complete with an adult!!**

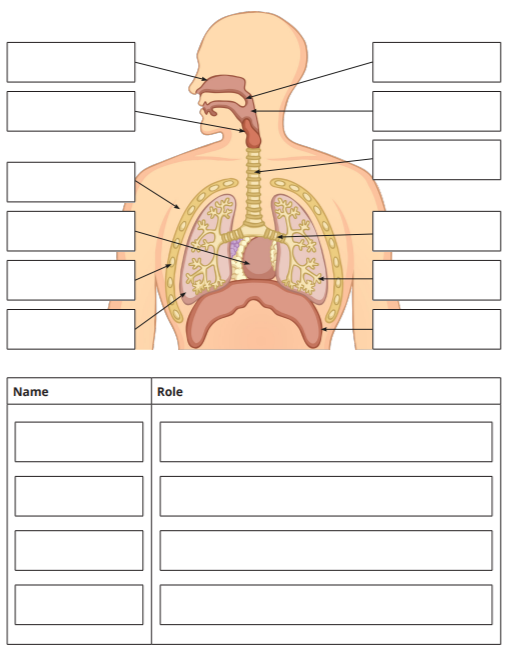
**Challenge 9: Complete the food chain below. Add the correct labels to the images.**

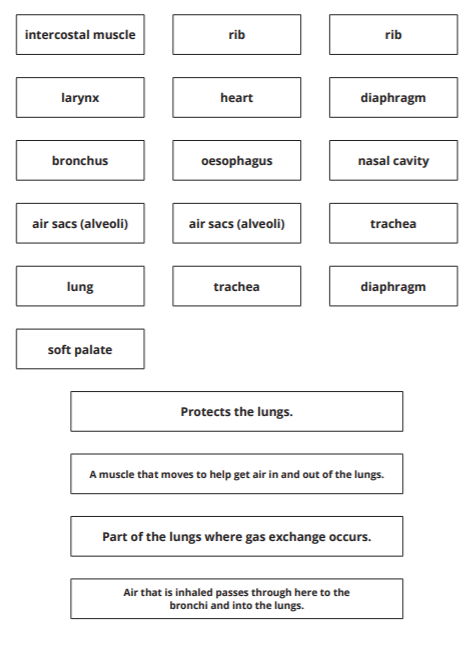


**My very own food chain**

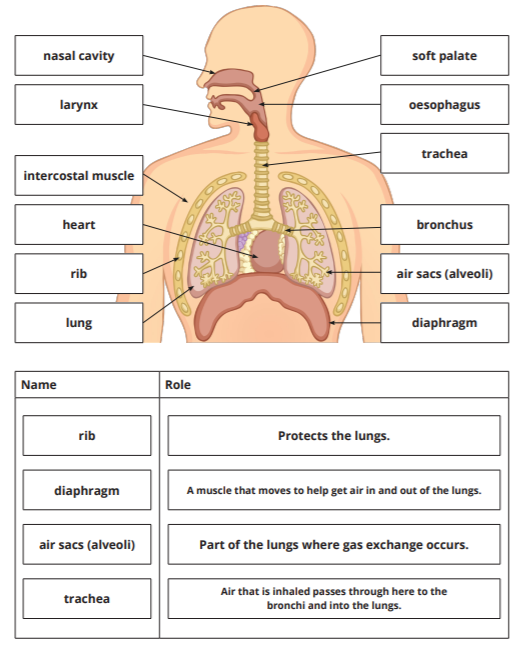
**Challenge 10:** Cut and stick the correct parts of the respiratory system on the diagram. The labels are on the next page.

Then stick the correct function next to the correct part.



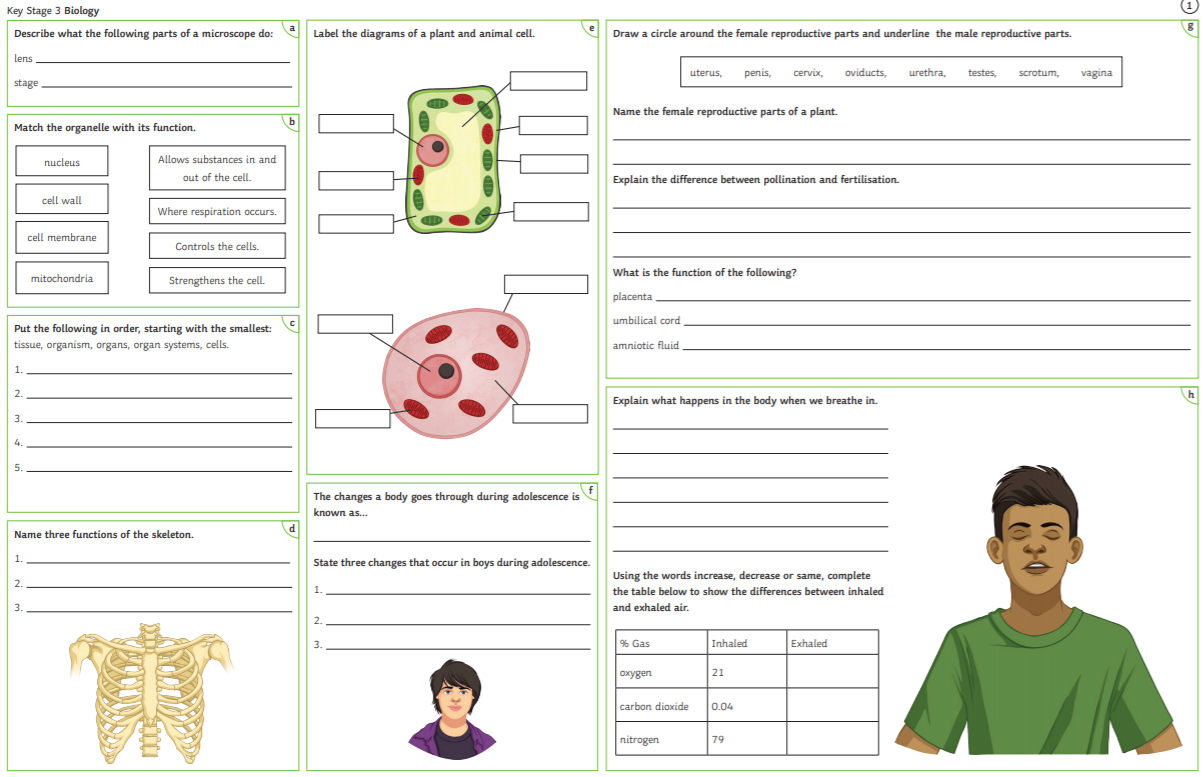


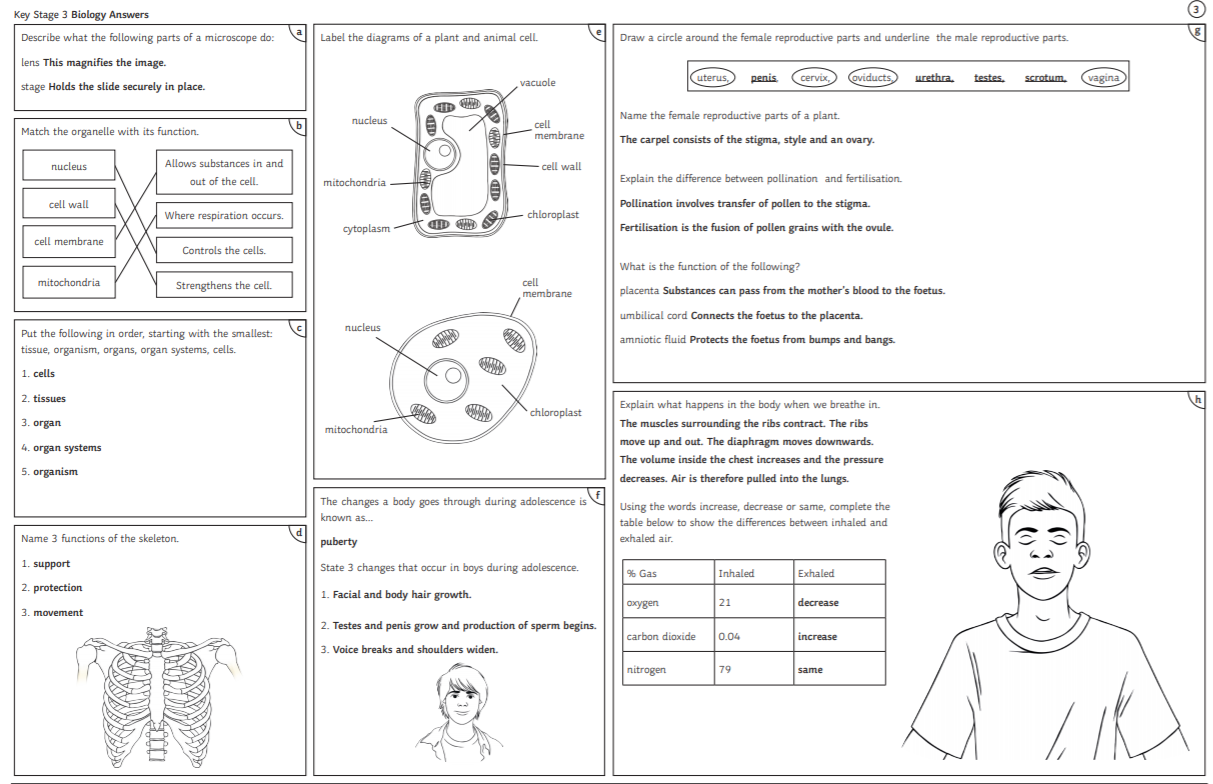
**Answers**

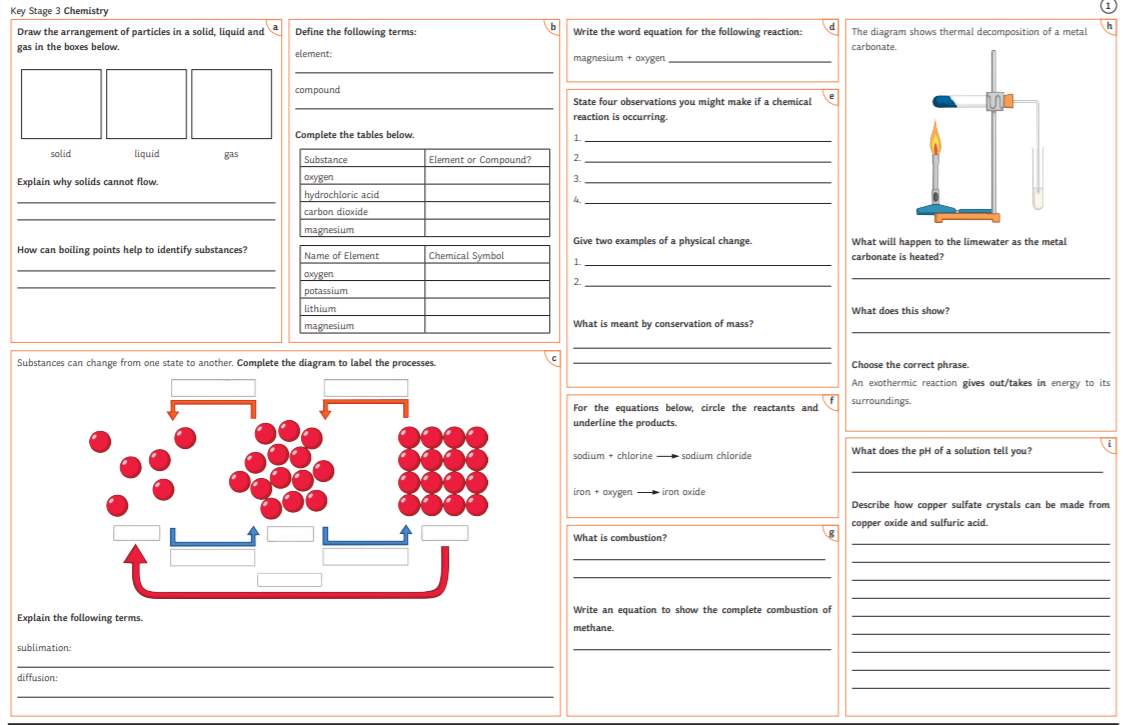


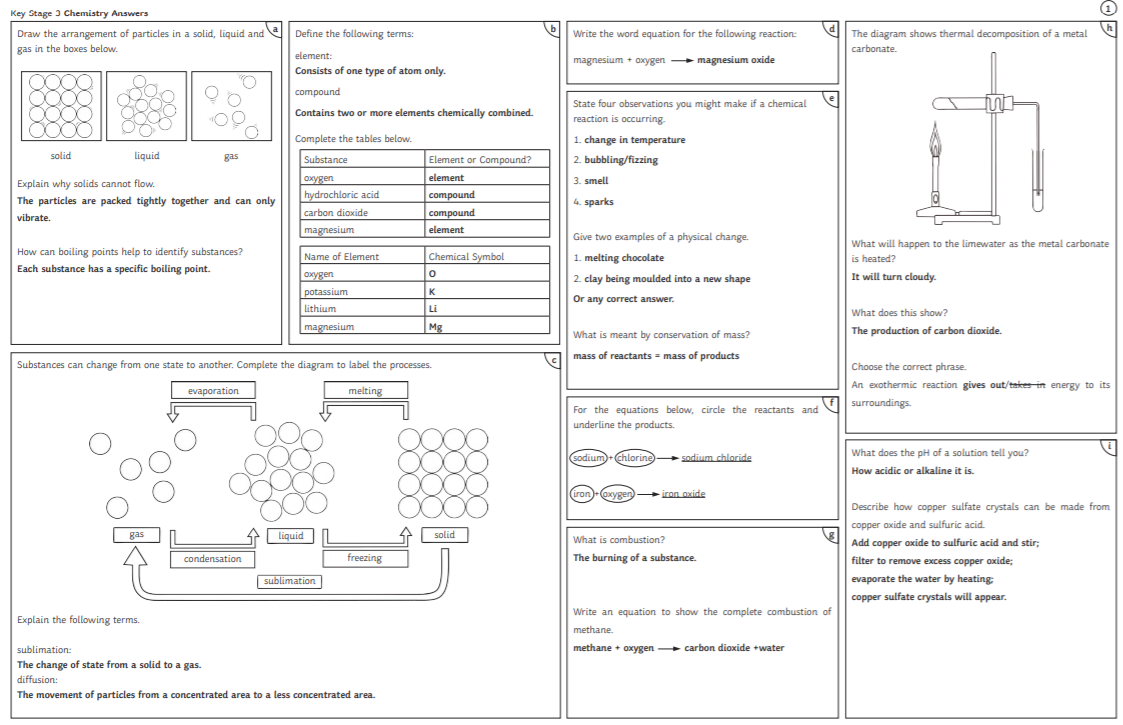
**Challenge 11: Complete the revision mats on biology, chemistry and physics**

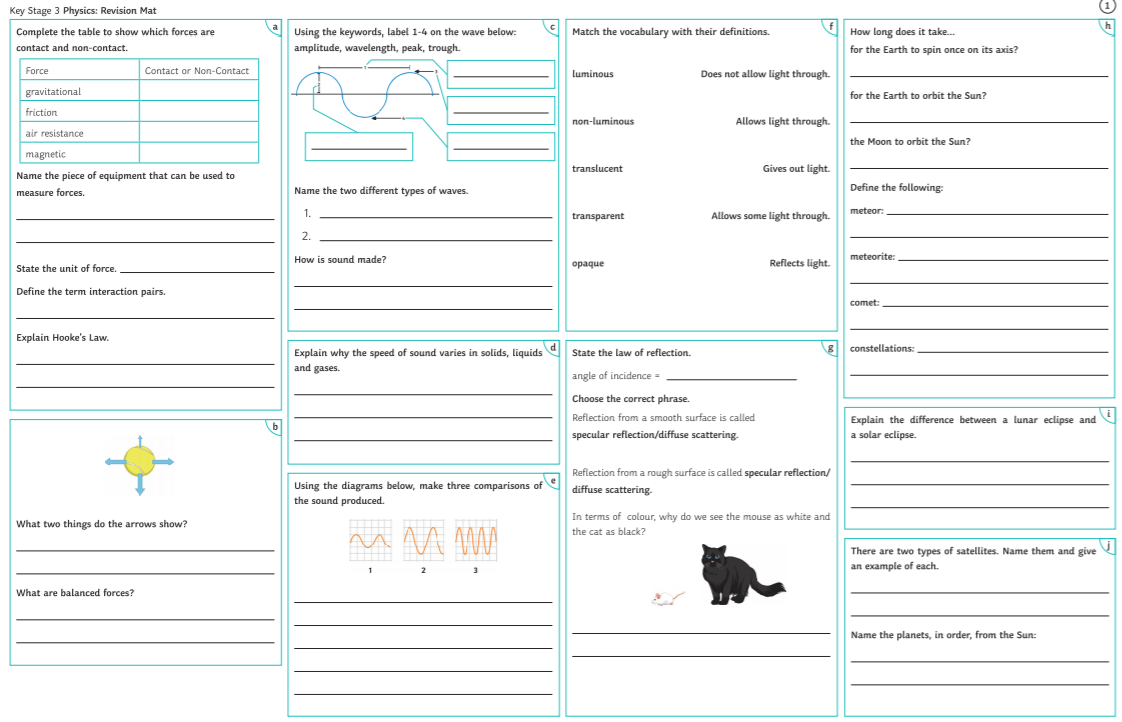
**The answers for each placemat are on the following page.**

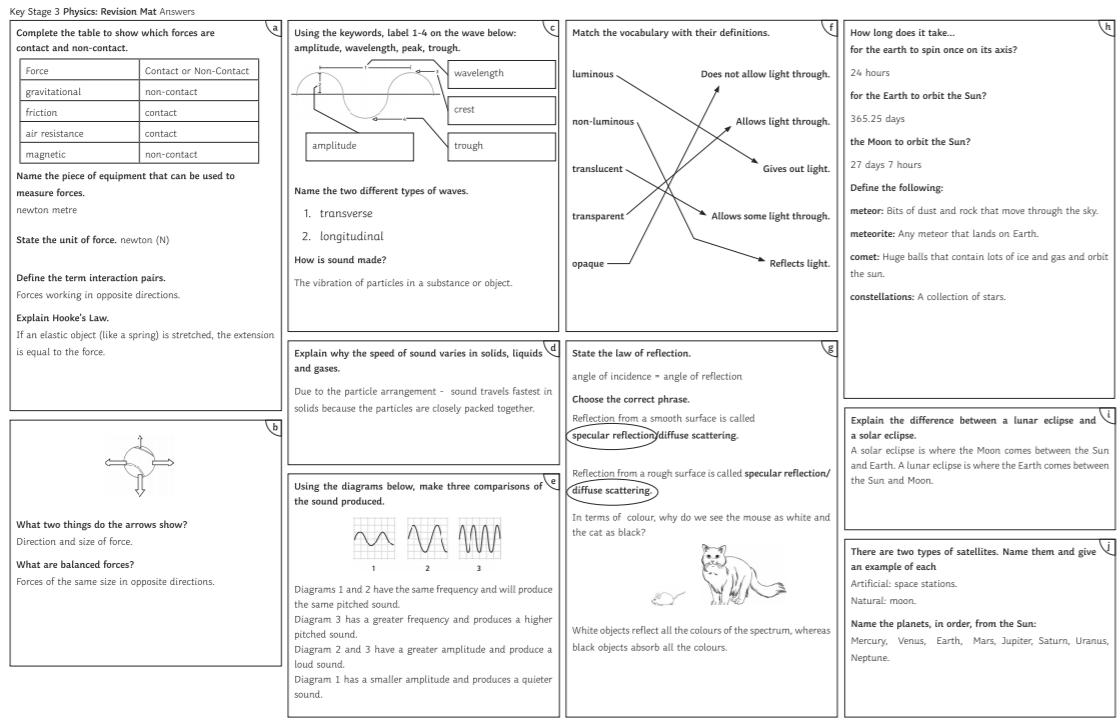






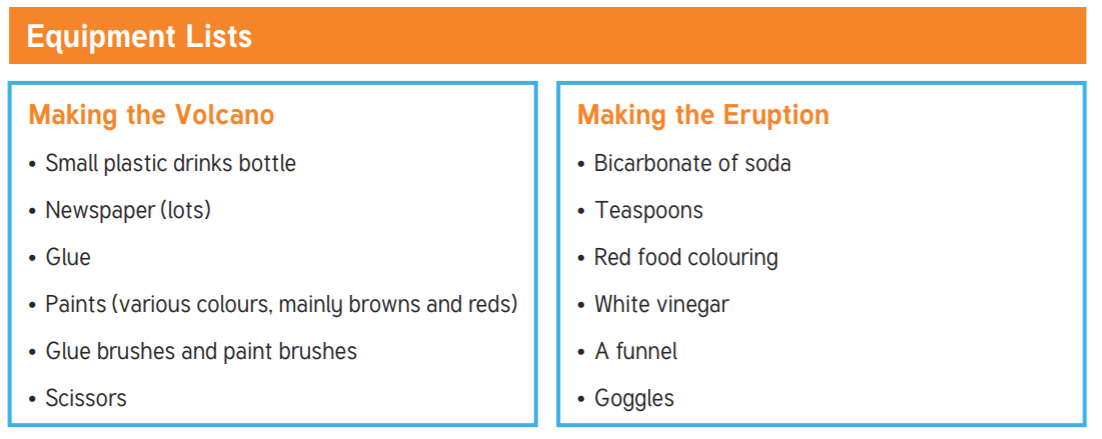






**Challenge 12: Make your own erupting volcano! Here are a list of thigs you will need! Take a video if your volcano and send it in!**

Making Your Volcano

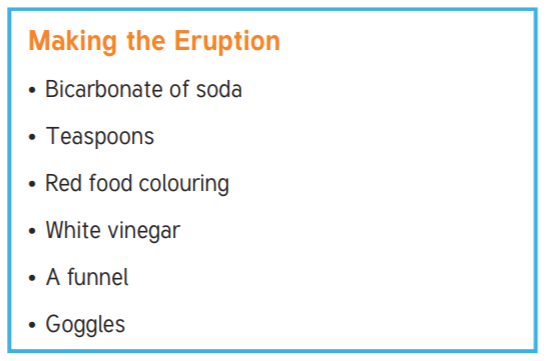




Method

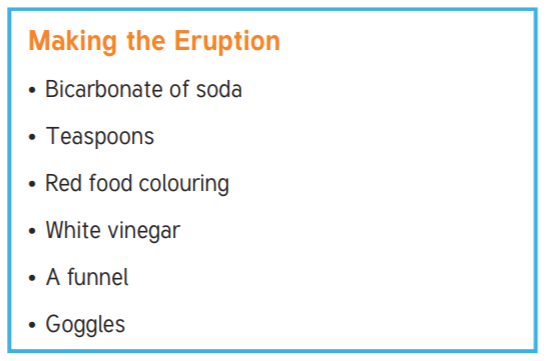
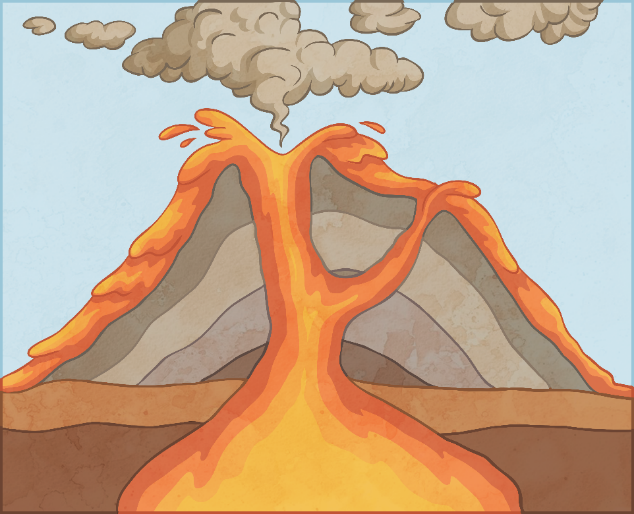
* Fold your newspaper up to make several strips, about   
  1 inch thick.
* Working from the bottom up, apply glue to your bottle, then wrap the newspaper strips around it.
* Build up the layers to create a volcano shape – you’ll need to add more strips to the bottom to make it wider.
* Remember: do not cover the hole at the top of the bottle.
* When you are happy with the shape, add torn pieces of newspaper over the top to smooth out the layers.
* Allow the glue to dry completely for at least 24 hours.
* Paint your volcano to give it a realistic look

Making Your Volcano









Make a video of your volcanic eruption and send it in to your teacher!!!

Method

* Put your goggles on
* Place the funnel in the top of your bottle
* Add 4 teaspoons of bicarbonate of soda to the bottle
* Pour a generous amount of white vinegar into a beaker and add a small amount of red food dye
* Quickly pour the vinegar into the bottle and watch the volcano erupt

Volcano Eruption