

1st June

Memory verses

I do set my bow in the cloud,

and it shall be for a token of a covenant between me and the earth.

And it shall come to pass, when I bring a cloud over the earth,
that the bow shall be seen in the cloud:

and I will remember my covenant,

which *is* between me and you and every living creature of all flesh;

and the waters shall no more become a flood to destroy all flesh.

Genesis 9:13-15



A experiment to do

This beautiful photo was taken in Devon but a rainbow can appear anywhere given the right conditions. There has to be rain and there has to be sunshine. In those conditions, if you stand with your back to the sun you will almost certainly see a rainbow. Why?

The “white” light that shines on us from the sun is actually made up of all the colours of the rainbow. When sunlight strikes a falling drop of water the surface of the water causes the light to be refracted. Refracted means changed in direction or “bent”. But the different colours in the light are each bent by a different amount. The back of the drop reflects the light to the front where the surface causes it to be refracted again. The light now comes out of the drop broken into its component colours because each colour in the white light has been bent by a different amount. In the picture above, if you look carefully you will see that there is another rainbow, or part of one, to the left of the main rainbow. This happens when the beam of light is reflected twice inside the drops of water. The secondary rainbow is not very clear in the picture but you may *just* be able to notice something about the order of colour in it compared to the main rainbow.¹ More about this below.

If you have a glass or clear plastic prism you can make your own rainbow by shining a torch on it. Darken the room as much as you can to see the best rainbow and use a narrow beam of light. If you have no prism do not despair! You can make a rainbow with a glass of water and a torch (or even sunlight if it is a very sunny day) – although it will be fainter.

You will need:

A glass of water

A sheet of white paper

A torch

¹ They are in the reverse order.

Method:

Fill the glass almost to the top with water.

If you are going to try using sunlight do the experiment outside. Put the glass of water half on and half off the edge of a garden table and position it so that the sun shines directly through the water and onto the sheet of white paper on the ground. You will need to move the paper and the glass about until a rainbow shows on the paper.

If you are using a torch indoors, darken the room as much as you can. Then put the glass of water on the paper, and move the torch around until you see a rainbow.

Something to think about

We see a lot of rainbow signs and pictures around these days on people's doors and windows but those who put them up probably have no idea that the rainbow was *given* as a sign in the first place. It is a sign to remind us of something very important. Here is what God explained to Noah and his sons when they came out of the ark after the flood. Your memory verses come near the end of the paragraph:

And I, behold, I establish my covenant with you, and with your seed after you; and with every living creature that *is* with you, of the fowl, of the cattle, and of every beast of the earth with you; from all that go out of the ark, to every beast of the earth. And I will establish my covenant with you; neither shall all flesh be cut off any more by the waters of a flood; neither shall there any more be a flood to destroy the earth. And God said, This *is* the token of the covenant which I make between me and you and every living creature that *is* with you, for perpetual generations: I do set my [rain]**bow** in the cloud, and it shall be for a token of a covenant between me and the earth. And it shall come to pass, when I bring a cloud over the earth, that the **bow** shall be seen in the cloud: and I will remember my covenant, which *is* between me and you and every living creature of all flesh; and the waters shall no more become a flood to destroy all flesh. And the **bow** shall be in the cloud; and I will look upon it, that I may remember the everlasting covenant between God and every living creature of all flesh that *is* upon the earth. And God said unto Noah, This *is* the token of the covenant, which I have established between me and all flesh that *is* upon the earth.

So we see from this that the rainbow is God's reminder to us that he has promised that he will never again destroy the earth's inhabitants by a flood. How sad that people use the rainbow as a sign but have forgotten what it is a *sign about!*

God will never destroy the earth with water again. But he will one day destroy it by fire. In 2 Peter 3:10 the apostle says: "But the day of the Lord will come as a thief in the night [that is unexpectedly]; in the which the heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up."

If we love the Lord Jesus and trust Him as our Saviour this does not frighten us. Just as Noah and his family were saved in the ark, so we, on that "day of the Lord" will be safe in Jesus.²

Something to draw

If you want to draw your own rainbow picture don't forget to write the memory verses on it. You will notice if you look at the verses at the head of today's lesson that they fall very neatly into seven sections. Perhaps you could draw a rainbow and write a section on each of the colours.

Here are two ways to remember the order of the colours in a rainbow for your drawing. They both go from top to bottom of the bow (the **main** bow that is) and the first is just a two syllable nonsense word, royg-biv. Each letter in roygbiv stands for a colour: **red**, **orange**, **yellow**, **green**, **blue**, **indigo**,

2 You can read more about this here and also an excellent description of the science of rainbows:
<https://creation.com/search?q=FTER+THE+Flood+%2C+when+Noah+and+his+family+came+out+of+the+ArA+k+...>

violet. We looked at nonsense words on 11th of May but you will have to make up a meaning for royg-biv yourself! The other way to remember the rainbow colours is to say this sentence: “Richard of York gave battle in vain.” Each word in the sentence begins with the same letter as the relevant colour.

Something to look at and write about

Did you work out that the colours in a second rainbow are in the opposite order to those in the first when there is a double rainbow? One very famous artist painted a beautiful picture of a double rainbow and got this wrong!



This painting is by Sir John Everett Millais (1829-1896) and when he first put it on show someone told him that he had his second rainbow backwards! He took the picture down and altered it – which is how you see it today. The painting is called *The Blind Girl* and the artist has put into it many

details which arouse our sympathy for the children in the picture. Look at the girls' skirts. What do you notice?³ This is because they are beggars, probably orphans with no one to take care of them. You can tell that although the older sister is blind, the younger can see. The older girl has a paper round her neck which you might just be able to read. It says "Pity the blind" – an explanation to passers-by of the reason why she is begging. The funny looking box on her lap is a concertina which is a musical instrument which she plays to earn money from passers-by.⁴ The town in the background is Winchelsea in Sussex; perhaps the girls are making their way there to beg and have been stopped by a shower of rain. Notice that the blind girl is feeling a blade of grass. Is she aware of the butterfly that has landed on her shawl? The picture is not all sadness. Millais shows us that the sisters love each other. The rainbows over Winchelsea makes us wonder if some happy ending to the story will happen when they get there. If you like making up stories perhaps you could write down the happy ending for this one.

Something to look out for in June



In June the dandelions turn from gold to white as they get their seed heads. It is probably a bit too soon for this yet but keep your eyes peeled from now on. When you do see a white dandelion, re read if you have already read it, the last part of the lesson for October 17th. If you haven't done that lesson yet, don't worry. Enjoy blowing your first dandelion clock of the year and jot down in your notebook exactly when you did it. Then you will be all ready for the October 17th lesson when it comes up.

3 They are ragged.

4 You can here one played here: https://www.youtube.com/watch?v=VQCUdr_S_ZI