

English

Monday 22nd February 2021

Objective: To understand what an explanation text is.

Success Criteria

1. I can read some examples of explanation texts.
2. I know the purpose of explanation texts.
3. I know the features of explanation texts.

Starter

- Watch the video

The Turbo Diner - Cracking Contraptions - Wallace and Gromit

<https://www.youtube.com/watch?v=eDmwqj6CUOY>

We've received a letter from Wallace!

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*By Heck Year 5! We've had a major catastrophe down at the workshop!
Let me tell you what's happened...*

*I was in my living room a week ago, enjoying a nice cuppa tea and
some cheese and crackers, when I heard a strange noise coming from
downstairs in the basement.*

Now, usually it's me that's making strange noises in the basement as I bring my ideas to life and put my inventions together. I thought it might have been Gromit, you know, because sometimes he's a bit clumsy. But wouldn't you know it, the mutt walked in just as I was about to shout him! Then I realised! Someone was down there!

We rushed down there, but were too late! Someone had stolen all of my ideas! All my blueprints, all my explanations of how my machines work, gone!

This is why I'm writing to you, Year 5. I need some new inventions. I need some help getting going again! I want you to draw plans and write explanations of your best machines possible.

I've asked your teachers to help you out, because I need your drawings and writing to be as clear and understandable as possible, so that I can get building again! And don't forget, I'm only going to make the interesting ones! My invention show is in four weeks, and I need these explanations of how to build your machines!

I hope you can help, Year 5?

Wallace

PS, I've sent you a picture of the prime suspect. If you see him, make sure you tell the police!

Look at the different explanation texts on the next 3 slides.

What makes this a non-fiction text?

Can you work out what makes something an explanation text?

What are the features?

1. Explanations answer the questions "how" How does a pump work? or "why" Why do some things float or sink? "
2. They have a clear title.
3. Ideas are grouped in paragraphs
4. The first paragraph introduces the subject and is general.
5. There are at least 3 sentences in a paragraph
6. They use cause/effect connectives (then, as a consequence, so, if, because, as a result, therefore).
7. They often use time connectives and openers (first, then, following, finally).
8. They are written in the present tense (are, turns, happens).
9. They use action verbs (falls, rises, changes).
10. They may have sub-titles and a glossary
11. They use specialised vocabulary that is specific to the topic and may be explained in the glossary.

How bees make honey



Honey bees collect nectar and pollen from flowers, but only nectar is used to make honey. Nectar is a "reward" given by the plant to attract bees. Pollen is transported back to the hive in the pollen baskets on the hind legs whereas the nectar is transported in the stomach. Nectar is mostly water with dissolved sugar. The amount of sugar varies greatly but is usually 25-50%. Back in the hive the nectar is placed into wax honeycomb cells and the excess water evaporates until the honey is approximately 83% sugar and 17% water. This takes a few days. The cell is then covered over with a layer of wax which is later removed when the bees need to eat the honey. When large amounts of nectar are being collected the bees speed up evaporation by using their wings to ventilate the hive.

The sugar is also changed. Sugar in nectar is mostly sucrose (table sugar). Sucrose has large molecules. The bees produce an enzyme which breaks each sucrose molecule into two smaller sugar molecules, glucose and fructose. By evaporating the excess water and converting the sucrose into smaller sugars the bees make the honey too concentrated for yeasts and other microorganisms to grow. Preventing spoilage is important to the bees because the honey made in the summer is used as winter food.

Without at least 10kg of honey a bee colony cannot survive the winter, when there are no flowers. In addition to sugar, nectar contains other chemicals. Although these are only present in small amounts they are important because they give different honeys their distinctive colours and flavours. Although the bees from one

colony collect nectar from many species of plants, at certain times they collect most of their nectar from one or a few species of plants that are very abundant. These "nectar flows" are responsible for most of the honey that actually gets stored. Beekeepers often harvest honey after a nectar flow, thereby producing honey predominantly from a single plant species and with a characteristic flavour and colour.



Did You Know?

- * Beekeepers often move their hives to places where there are lots of flowers. The hives are moved by vehicle at night when the bees are all inside.
- * A full-time bee farmer usually keeps 1000 or more hives. With 30,000 bees per hive that makes 30 million bees to look after.
- * The bees in a hive help each other to forage more efficiently by telling each other the direction and distance of flower patches using the "waggle dance".
- * The Quran says this about bees and honey "From its belly comes forth a fluid of many hues, a medicinal drink for men". In other words, honey is good for you!

How Amazing!

- * When full, the honey stomach can weigh more than half a forager bee's unladen weight and the forager's abdomen is visibly longer.
- * It takes approximately 50,000 bee loads of nectar to make one pound of honey.
- * Honey bees will collect nectar as far as 14km (8 miles) from their hive.
- * The ancient Egyptians used honey to help wound healing. Modern science has shown that honey kills bacteria and honey is coming back as an antiseptic.

The water cycle

The water cycle is also known as the hydrological cycle. There is the same amount of water on the Earth now as there was when the Earth began. The water cycle is how the earth's water recycles itself.

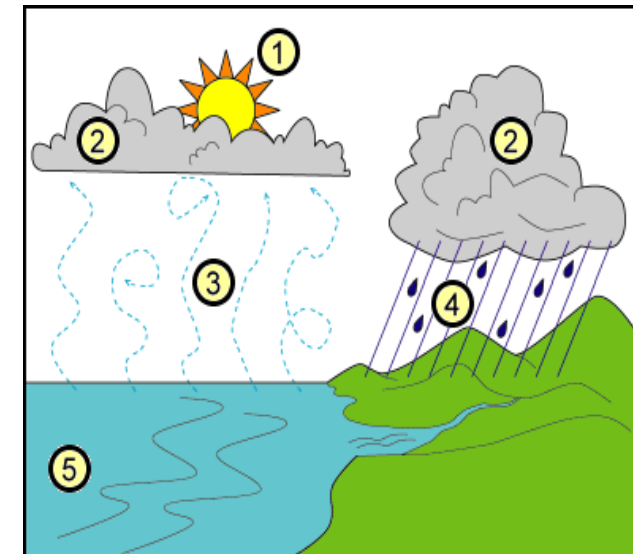
The cycle includes [precipitation](#), [evaporation](#), [condensation](#), and [transpiration](#). Earth's water keeps changing from liquid water to vapour and then back again. This cycle happens because of the sun's heat and gravity.

How does the Water Cycle work?

1. First of all, water [molecules](#) from lakes, rivers, streams, reservoirs, and the sea get heated up by the sun and then turn into vapour that rises into the air.
2. Next, these water molecules form into clouds, this is because a process called condensation occurs.
3. When the air and the water cool, they form drops of water which then fall to the earth as rain. If they are frozen, they become snow or sleet.
4. Once the water reaches the ground, it can flow across the land until it reaches rivers, lakes, streams, or the sea. It can also sink into the ground and flow because of gravity through gaps in rock, gravel and sand. Because of this, it reaches these bodies of water too.
5. Now the cycle begins again, when water is evaporated once more.

Why is water important?

Many of us think water will always be there for us when we want it. Without water, living things would die. You will die if you go without water for more than a week. Plants will die without water and that would kill all of the animals that eat the plants.



How to Fly a Hot Air Balloon

A hot air balloon consists of a basket, four big gas tanks, a burner and the balloon or 'envelope'.

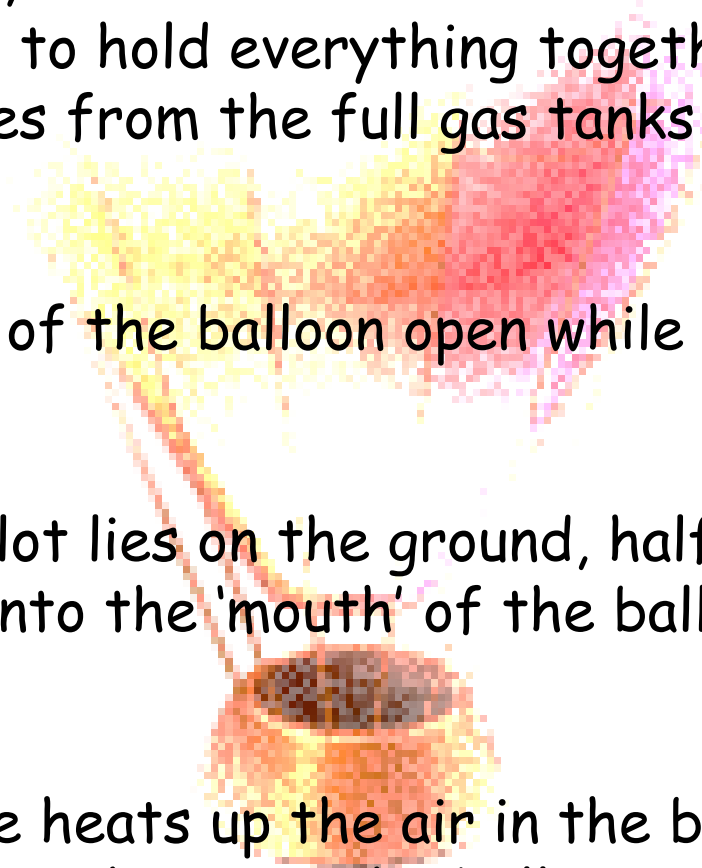
First, the pilot puts four nylon poles into sockets on top of the basket. Then she puts the burner on top of the poles. Next, she connects the cables to the burner frame. The cables also go under the basket in order to hold everything together.

After this, she connects the hoses from the full gas tanks to the burner so that she can test it.

Next, two people hold the mouth of the balloon open while it is filled with cold air from the fan until it is quite fat and tight.

Now for the difficult bit. The pilot lies on the ground, half in the basket. She turns on the gas burner and points the flame into the 'mouth' of the balloon. This is so that the balloon slowly stands up.

When the pilot is ready to go, she heats up the air in the balloon a bit more. This results in the air in the balloon to be hot enough to get the balloon to rise off the ground.



Your task

Look at the boxes on the next slides (slides 9, 10, 11.)

The ones on the left are the **features of explanation texts**.

The ones on the right **explain the features**.

Can you match them up?

When you have the correct combinations, copy them into your book!

1* support: Look at slides 12, 13, 14. These are **not** mixed up. Look at the features and copy a list.

3* extension: Can you find examples of these features in the example texts?

2 and 3 star

Match up the 10 features on the left with the 10 explanations on the right.

They are mixed up over slides 9, 10 and 11.

Purpose

Explains generally what the topic is about.

Title

Use words that are specific to your subject. You might need a glossary to explain them.

Paragraphs

Verbs that show things are happening (falls, rises, changes).

Connectives

Might go above paragraphs to show the reader what each section is about.

2 and 3 star

Match up the 10 features on the left with the 10 explanations on the right.

They are mixed up over slides 9, 10 and 11.

Openers

Includes **causal** (then, because, as a result) and **time** (first, then, next)

Tense

Sometimes has the word 'How' or 'Why' in it. It is always clear.

Action Verbs

Are usually time connectives.

Sub-titles

Written in the present tense (are, turns, happens)

2 and 3 star

Match up the 10 features on the left with the 10 explanations on the right.

They are mixed up over slides 9, 10 and 11.

Specialised
Vocabulary

The text is
grouped and
split into these.

Introduction

An Explanation
Text answers the
question 'how?'
or 'why?'.

1 star

Look at the list of features on the left and read the explanation which is alongside it.

Copy the list into your book.

There are 10 features on slides 12, 13, 14.

Purpose

An Explanation Text answers the question 'how?' or 'why?'.

Title

Sometimes has the word 'How' or 'Why' in it. It is always clear.

Paragraphs

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