**[](http://www.google.co.uk/imgres?q=chocolate&um=1&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=2Cbay11wGe1HcM:&imgrefurl=http://www.topfoodfacts.com/?p=798&docid=VU8EW56opENq_M&imgurl=http://www.topfoodfacts.com/wp-content/uploads/2013/01/1.3.1.3_1.jpg&w=1200&h=800&ei=Fm4OUZKlF4qL0AXq5oD4Bw&zoom=1&ved=1t:3588,r:44,s:0,i:298&iact=rc&dur=429&sig=115844552722389456915&page=3&tbnh=178&tbnw=256&start=42&ndsp=24&tx=162&ty=69)Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Miss Rosler’s Chocolate Factory**

Miss Rosler is setting up a Chocolate Factory to compete against Willy Wonka and Mr Cadbury in an annual competition.

In the chart below design six types of scrumdiddlyumptious confectionery that you think will help her to win the ‘***Chocolate Factory of the Year****’* award!

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| **Name** | **Illustration** | **Description** |
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Look at the other page to see some of the information Mr Slugworth has stolen from the other two competitors to help you with your ideas!

**[](http://www.google.co.uk/imgres?q=slugworth+cartoon&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=zBCdJSgfeTUBHM:&imgrefurl=http://www.tshirtroundup.com/blog/designer-spotlight-warbucks360&docid=bWgDhC7jhXzEcM&imgurl=http://www.tshirtroundup.com/wp-content/uploads/2012/05/slugworth-warbucks360-sm.jpg&w=220&h=200&ei=THQOUZezHca_0QXUnYGIDA&zoom=1&ved=1t:3588,r:14,s:0,i:121&iact=rc&dur=638&sig=115844552722389456915&page=1&tbnh=160&tbnw=176&start=0&ndsp=20&tx=86&ty=99)Mr Slugworth’s Report**

Mr Slugworth has been sneaking around spying on the other competitors, which might give you some ideas. However, remember that Miss Cook will win points for originality!

[](http://www.google.co.uk/imgres?q=willy+wonka+cartoon&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=wGoJJO4MTY9rzM:&imgrefurl=http://grub.gunaxin.com/25-famous-animated-food-mascots/26374&docid=jwGSrf_vF7r0-M&imgurl=http://cdn.gunaxin.com/wp-content/uploads/2009/09/nerds.jpg&w=563&h=600&ei=RHUOUcXXDou20QWBrIHwBQ&zoom=1&ved=1t:3588,r:80,s:0,i:341&iact=rc&dur=241&sig=115844552722389456915&page=3&tbnh=195&tbnw=189&start=54&ndsp=30&tx=113&ty=101)

*‘Oh what a man he is, this Mr Willy Wonka!’ cried Grandpa Joe.*

*‘Did you know, for example, that he has himself invented more than two hundred new kinds of chocolate bars, each with a different centre, each far sweeter and creamier and more delicious than anything the other chocolate factories can make…’‘…Mr Willy Wonka can make marshmallows that taste of violets, and rich caramels that change colour every ten seconds as you suck them, and little feathery sweets that melt away the moment you put them between your lips. He can make chewing gum that never loses its taste, and sugar balloons that you can blow up to enormous sizes before you pop them with a pin and gobble them up.*

Extract from *Charlie and the Chocolate Factory*, by Roald Dahl

**Willy Wonka:** Invention, my dear friends, is 93% perspiration, 6% electricity, 4% evaporation, and 2% butterscotch ripple.

Do you notice any mistakes Mr. Wonka has made with his data collection when deciding what makes up “invention”?

**[](http://www.google.co.uk/imgres?q=chocolate&um=1&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=2Cbay11wGe1HcM:&imgrefurl=http://www.topfoodfacts.com/?p=798&docid=VU8EW56opENq_M&imgurl=http://www.topfoodfacts.com/wp-content/uploads/2013/01/1.3.1.3_1.jpg&w=1200&h=800&ei=Fm4OUZKlF4qL0AXq5oD4Bw&zoom=1&ved=1t:3588,r:44,s:0,i:298&iact=rc&dur=429&sig=115844552722389456915&page=3&tbnh=178&tbnw=256&start=42&ndsp=24&tx=162&ty=69)LO – I can collect and record data.**

Miss Rosler needs to decide which chocolate products to make in her factory.

Complete the tally chart with the names of your confectionery and collect data from your friends and family to find out each person’s favourite item. They may pick only ONE!

Use tally marks and then find the total preferences for each sweet.

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| **Name** | **Tally Marks** | **Total** |
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In the thought bubble, write down all of the types of graph you can think of. Underline the ones you could use to record the data you have collected.

**[](http://www.google.co.uk/imgres?q=chocolate&um=1&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=2Cbay11wGe1HcM:&imgrefurl=http://www.topfoodfacts.com/?p=798&docid=VU8EW56opENq_M&imgurl=http://www.topfoodfacts.com/wp-content/uploads/2013/01/1.3.1.3_1.jpg&w=1200&h=800&ei=Fm4OUZKlF4qL0AXq5oD4Bw&zoom=1&ved=1t:3588,r:44,s:0,i:298&iact=rc&dur=429&sig=115844552722389456915&page=3&tbnh=178&tbnw=256&start=42&ndsp=24&tx=162&ty=69)LO – I can record data.**

Now create a bar chart to show the results of your market research.

Label each axis and give the chart a title.

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**LO - I can ask and answer questions using data. [](http://www.google.co.uk/imgres?q=chocolate&um=1&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=2Cbay11wGe1HcM:&imgrefurl=http://www.topfoodfacts.com/?p=798&docid=VU8EW56opENq_M&imgurl=http://www.topfoodfacts.com/wp-content/uploads/2013/01/1.3.1.3_1.jpg&w=1200&h=800&ei=Fm4OUZKlF4qL0AXq5oD4Bw&zoom=1&ved=1t:3588,r:44,s:0,i:298&iact=rc&dur=429&sig=115844552722389456915&page=3&tbnh=178&tbnw=256&start=42&ndsp=24&tx=162&ty=69)**

Now you need to analyse your data so that you can present your findings to Miss Rosler at the board meeting.

Come up with 4 questions about your graph which somebody else in your family could answer to get information from your data.

Q

A

Q

A

Q

A

Q

A

**[](http://www.google.co.uk/imgres?q=chocolate&um=1&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=2Cbay11wGe1HcM:&imgrefurl=http://www.topfoodfacts.com/?p=798&docid=VU8EW56opENq_M&imgurl=http://www.topfoodfacts.com/wp-content/uploads/2013/01/1.3.1.3_1.jpg&w=1200&h=800&ei=Fm4OUZKlF4qL0AXq5oD4Bw&zoom=1&ved=1t:3588,r:44,s:0,i:298&iact=rc&dur=429&sig=115844552722389456915&page=3&tbnh=178&tbnw=256&start=42&ndsp=24&tx=162&ty=69)LO – I can record data. I can answer questions using data.**

Mr Slugworth has been spying again, and he’s found out something shocking! Both Willy Wonka and Cadbury’s have been working on something new- chocolate that doesn’t melt!

Miss Rosler needs to keep up. She has been in the factory with her team working finding out what happens to her chocolate bars when they are heated.

**Analysis of Results.**

1. At what temperature does bar C melt?
2. Which bar melts at the lowest temperature?
3. How many bars melt between 10 and 20 degrees?
4. What is the difference between the temperature that D melts and the temperature that G melts?
5. Which bar or bars melt at a temperature higher than with Cadbury’s new invention?

# [http://t2.gstatic.com/images?q=tbn:ANd9GcQYoYx_6Wlr1g2guva_PBlGT4ojGe1wIHaq9d8IeWxZ8aWMFVic](http://www.google.co.uk/imgres?q=chocolate&um=1&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=2Cbay11wGe1HcM:&imgrefurl=http://www.topfoodfacts.com/?p=798&docid=VU8EW56opENq_M&imgurl=http://www.topfoodfacts.com/wp-content/uploads/2013/01/1.3.1.3_1.jpg&w=1200&h=800&ei=Fm4OUZKlF4qL0AXq5oD4Bw&zoom=1&ved=1t:3588,r:44,s:0,i:298&iact=rc&dur=429&sig=115844552722389456915&page=3&tbnh=178&tbnw=256&start=42&ndsp=24&tx=162&ty=69)I can sort data into a Venn diagram

Number of visitors

Profits

New inventions

**LO – I can record data. [](http://www.google.co.uk/imgres?q=chocolate&um=1&hl=en&tbo=d&biw=1441&bih=656&tbm=isch&tbnid=2Cbay11wGe1HcM:&imgrefurl=http://www.topfoodfacts.com/?p=798&docid=VU8EW56opENq_M&imgurl=http://www.topfoodfacts.com/wp-content/uploads/2013/01/1.3.1.3_1.jpg&w=1200&h=800&ei=Fm4OUZKlF4qL0AXq5oD4Bw&zoom=1&ved=1t:3588,r:44,s:0,i:298&iact=rc&dur=429&sig=115844552722389456915&page=3&tbnh=178&tbnw=256&start=42&ndsp=24&tx=162&ty=69)I can answer questions using data.**

Miss Rosler needs to know how best to impress the judges. She has managed to find out which of the three categories the judges think are the most important.

|  |  |
| --- | --- |
| **JUDGE** | **AREAS THAT ARE IMPORTANT** |
| Gary Barlow | New inventions, profits |
| Harry Styles | Profits, number of visitors |
| Tom Daly | New inventions, profits, number of visitors |
| Beyonce | New inventions, profits |
| David Cameron | Profits, number of visitors, new inventions |
| Miley Cyrus | Number of visitors, new inventions |
| David Attenborough | Profits |
| Jamie Oliver | New inventions |
| Kate Middleton | Number of visitors, new inventions |
| Helen Skelton | Number of visitors |
| Miranda | New inventions |
| Mr Molloy | Number of visitors, new inventions, profits |

Record the data onto the Venn diagram so that you can analyse the information and answer the questions below.

Analysis of Results

1. How many people think that profits are important?
2. What is the area that the least people think is important?
3. Which area does Miranda think is most important?
4. How many male judges think that profits are an important factor?
5. Which area should Miss Rosler be most aware of when planning for the competition?