

# The 2<sup>nd</sup> Math Project Instructions:

## Application of Data Analysis and Representation

### 第二个数学报告：数据分析和呈现的应用

\*应用 module 14-16 的内容 an application of the contents in module 14-16

Due date: \_\_\_\_\_(not decided)

Share your slides with me. My account: [TingHsuan.Liu@houstonisd.org](mailto:TingHsuan.Liu@houstonisd.org)

Share your survey link to Google Classroom.

Classroom code: \_\_\_\_\_(not confirmed)

	<p>1. 决定题目 <b>decide research topic</b></p>
	<p>2. 决定研究的人 <b>determine the research group</b></p> <p>举例来说，你可以选择下面其中一个研究的群体 For example, you can choose of the following study group.</p> <ul style="list-style-type: none"><li>(1) 全部的5年级 <b>all the 5th graders</b></li><li>(2) 全部的5年级男生 <b>all the 5th grade boys</b></li><li>(3) 全部的5年级女生 <b>all the 5th grade girls</b></li><li>(4) 何老师班的全部的人 <b>all the students in Mrs. Herrera's homeroom</b></li><li>(5) 何老师班的男生 <b>all the boys in Mrs. Herrera's homeroom</b></li><li>(6) 何老师班的女生 <b>all the girls in Mrs. Herrera's homeroom</b></li></ul>

	<p>zhù yì yán jiū qún tǐ yuè dà yán jiū jié guǒ yuè zhǔn què  <b>*注意：研究群体越大，研究结果越准确。</b> Mind: the bigger the study group, the more accurate the research result.</p>
	<p>shè jì wèn juàn  <b>3. 设计问卷 Design survey</b></p> <p>nǐ kě yǐ bǎ nǐ xiǎng zhī dào de wèn tí fàng jìn qù yǐ Google document huò Google form shè jì      你可以把你想知道的问题放进去，以 Google document 或 Google form 设计。</p> <p>You can put any questions you want to research in your survey. Use Google document or Google form to help you.</p> <p>nǐ kě yǐ cān kǎo zhè liǎng gè wǎng yǎn xué xí rú hé shè jì wèn juàn      你可以参考这两个网页学习如何设计问卷。 Please refer to these two webpages to learn more about survey design</p> <p>(1) <a href="https://www.mathsisfun.com/data/survey-conducting.html">https://www.mathsisfun.com/data/survey-conducting.html</a>      (2) <a href="https://www.surveysystem.com/sdesign.htm#goals">https://www.surveysystem.com/sdesign.htm#goals</a></p>
	<p>fā wèn juàn hé shōu jí zī liào  <b>4. 发问卷和收集资料 Distribute your survey and collect data</b></p> <p>qǐng jiāng wèn juàn lián jié fàng zài Google classroom  <b>*请将问卷连结放在 Google classroom</b></p> <p>Please leave the survey link in the Google classroom</p>
	<p>jué dìng yào zěn me jiě dú hé chéng xiàn shù jù  <b>5. 决定要怎么解读和呈现数据 Decide how to analyze and represent data.</b></p> <p>rú guǒ nǐ xiǎng zhī dào yào yòng shí me tú xíng lái chéng xiàn shù jù qǐng cān kǎo zhè gè wǎng zhàn      如果你想知道要使用什么图形来呈现数据，请参考这个网站。</p> <p>If you want to know when to choose which graph to represent data, please refer to this website.</p> <p><a href="https://nces.ed.gov/nceskids/help/user_guide/graph/whentouse.asp">https://nces.ed.gov/nceskids/help/user_guide/graph/whentouse.asp</a></p> <p>tú xíng  <b>图形：</b></p> <p>(1) diǎn tú dot plot  <b>点图 dot plot</b></p> <p>(2) jīng yè tú stem-and-leaf plot  <b>茎叶图 stem-and-leaf plot</b></p> <p>(3) sǎn bù tú scatter plot  <b>散布图 scatter plot</b></p>

(4) 长条图 cháng tiáo tú bar graph

(5) 频率图 pín shuài tú frequency table

注意：每个图一定要有分析的主题

Mind: Each graph/ table/ plot needs to have a title and the research items and numbers

举例来说，

主题：五年级的人会说的语言 zhǔ tí wǔ nián jí de rén huì shuō de yǔ yán Title: Languages 5th graders can speak

<small>yǔ yán</small> 语言 Language (research item)	<small>rén shù</small> 人数 (numbers)
<small>yīng wén</small> 英文	76
<small>zhōng wén</small> 中文	76
<small>xī bān yá wén</small> 西班牙文	23
<small>hán wén</small> 韩文	3
<small>é wén</small> 俄文	1

6. 练习口头报告：设计投影片，报告纸板或其他方式来呈现研究结果

Practice how to present your research by creating slides, tri-folds or other ways to show your research result

7. 正式报告 zhèng shì bào gào Formal presentation

# Survey Ideas for Students to Graph and Analyze

## 可以做的数据调查和分析主题

Retrieval from <https://www.thoughtco.com/taking-a-survey-2312607>

1. Survey the type (genre) of books people like to read.
2. Survey how many musical instruments a person can list.
3. Survey a favorite sport.
4. Survey a favorite color or number.
5. Survey favorite pets or types of animals.
6. Survey the weather: temperature, precipitation or type of day (hazy, windy, foggy, rainy etc).
7. Survey a favorite TV show or movie.
8. Survey favorite snack foods, soda flavors, ice cream flavors.
9. Survey favorite holiday locations or favorite all-time holiday.
10. Survey favorite subject in school.
11. Survey number of siblings in a family.
12. Survey amount of time spent watching TV in a week.
13. Survey amount of time spent playing video games.
14. Survey the number of countries people have been.
15. Survey what classmates want to be when they grow up.
16. Survey the types of ads that come on TV over a period of time.
17. Survey the different color of cars that drive by over a specific period of time.
18. Survey the types of ads found in a specific magazine