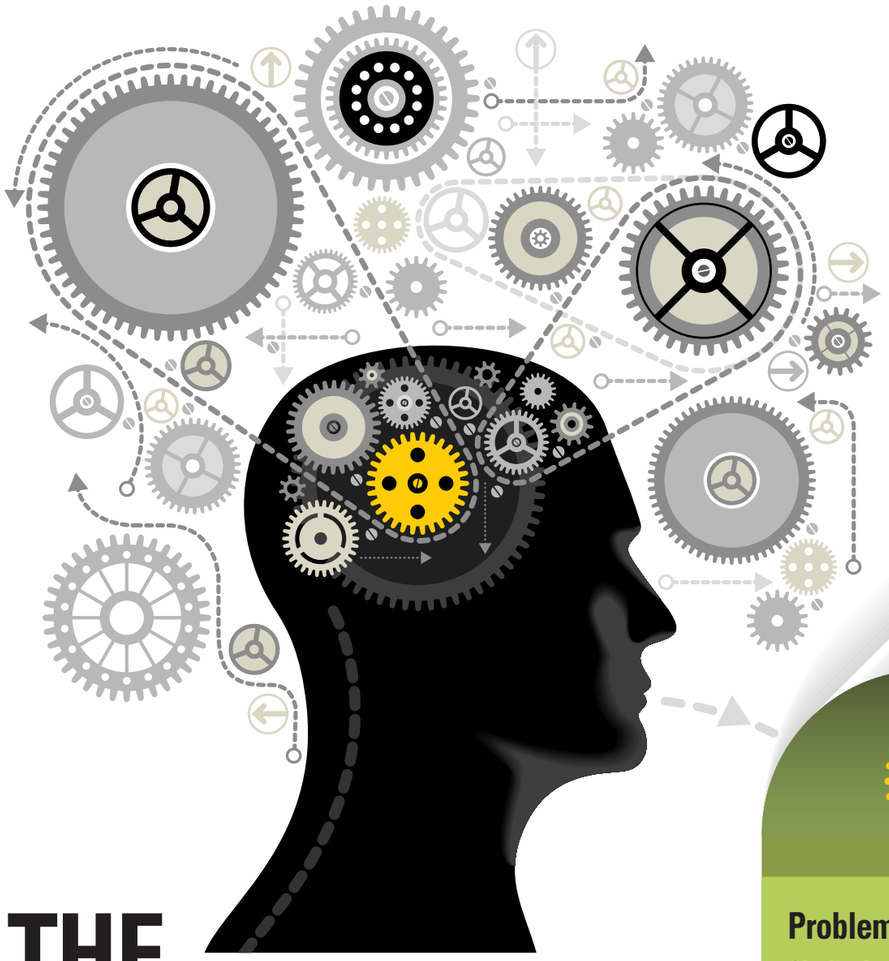

THE STATISTICAL INVESTIGATION PROCESS

The full statistical investigation process really does matter at all year levels. It is fundamental to why statistics is important.

Use the descriptions and key questions for each stage of the process to help guide your investigations.

Problem

Clarify the problem and formulate one or more questions that can be answered with data.

Can I define the problem?

How do I pose questions?

How will my data be used to answer questions?

Collect data

Design and implement a plan to collect or obtain appropriate data.

How will I plan?

What type of data will I collect?

What method will I use?

Analyse data

Select and apply appropriate graphical or numerical techniques to analyse data- sort, describe, summarise and compare data; identify relationships in the data and construct data displays.

Has there been a sampling error?

What is the distribution?

Are there patterns in the data?

Interpret & Communicate

Interpret the results of this analysis and relate the interpretation to the original question; communicate findings in a systematic and concise manner.

Are the findings significant?

Who is my audience?

What was unexpected?

Source: Content adapted from the Australian Curriculum (General Mathematics Glossary), Australian Curriculum, Assessment and Reporting Authority (ACARA), 2012.

Australian Bureau of Statistics