# IMPACT
## INQUIRY MATHS PEDAGOGY IN ACTION

# Favourite Books: Does our class have a favourite type of book?

*From* Allmond, S., Wells, J., & Makar, K. (2010). *Thinking through mathematics: Engaging students with inquiry-based learning. Book 1, Ages 6-8*. Education Services Australia.

Possible alignment of inquiry with Australian Curriculum: Mathematics:

| Content Descriptors | Proficiencies |
|---|---|
| **Yr 3**<br><br>**ACMSP068** Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording.<br><br>**ACMSP069** Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies.<br><br>**ACMSP070** Interpret and compare data displays. | Examples for Yr 3<br><br>**Understanding**<br>• Interpreting data displays<br>• Identify categorical variables<br>• Represent data in different ways<br>• Identify commonalities and differences between data displays<br><br>**Fluency**<br>• Conduct simple data investigations for categorical variables<br>• Constructing and reading data displays |
| Yr 4<br><br>**ACMSP095** Select and trial methods for data collection, including survey questions and recording sheets.<br><br>**ACMSP096** Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values.<br><br>**ACMSP097** Evaluate the effectiveness of different displays in illustrating data features including variability. | **Problem Solving**<br>• Formulating and modelling authentic situations involving planning methods of data collection and representation<br>• Interpreting data displays to solve an authentic problem<br><br>**Reasoning**<br>• Creating and interpreting variations in the results of data collections and data displays<br>• Comparing and critiquing data displays |
| Yr 2<br><br>The Favourite Books inquiry can be used to introduce younger students to the idea of sorting data into categories to identify categorical variables (Venn diagrams and Carroll diagrams).<br><br>**ACMSP048** Identify a question of interest based on one categorical variable. Gather data relevant to the question.<br><br>**ACMSP049** Collect, check and classify data.<br><br>**ACMSP050** Create displays of data using lists, table and picture graphs and interpret them. | |