**Teacher Instructions**

**Overall notes**

The student’s activity booklet is not intended to be printed and written but rather typed on to develop students’ competence on working with typing and using computers.

If needed, collect some data gathering/sorting/displaying games for students who are ‘fast finishers’ to give them more practice whilst they wait for others to finish.

You may want to split the student’s activity booklet into their respective activities so that students do not move ahead or ruin the formatting of later activities.

You can change this resource in whichever way you like to suit you and your students.

**Activity 1**

**Time:** 2x30-45 minute sessions

**Outline:** Students partake in online sorting activities using Digital Technologies and manipulatives. They sort monsters into bags of the same size and sort Fuzz Bugs into tubes of the same colour and answer questions about the data.

Students then sort attribute blocks into desired categories. (ie. by colour, size, shape, thickness etc.) They draw and label a picture of the sort they liked best and take a photo of the picture and insert it in the document

**Resources:** Device with a camera, attribute blocks, computers with internet access, paper and writing/drawing instruments, activity booklet

**Note:** Within these lessons, you should teach students how to download a picture from a device onto a computer and how to insert it into a word document

**Differentiation Options:**

* Students can just take a photo of the pattern blocks they sorted (for strugglers, kinaesthetic learners)
* High achievers can take a photo of the blocks they sorted and label it on a device

**Activity 2**

**Time:** 1x45-60 minute session

**Outline**: Students analyse picture graphs and answer associated questions.

**Resources:** activity booklet

**Differentiation Options:**

* Allow struggling students to work with a partner, group, yourself or teacher aide
* Give high achievers extension questions to type up an answer

**Activity 3**

**Time:** 1x60 minute session + an introductory lesson to Bubbl if needed

**Outline:** Students categorise stationery items into separate groups until each group only has one item in it.

**Resources:** Separte bags with – Glue, a paperclip, scissors, a rubber, blue tac, a pencil, a pen, a toothpick, a piece of string, a magnet, a rubber band, a push pin, a bulldog clip, a piece of sticky tape, a sticky note, a staple. Butchers/A3 paper and a pencil to write with

Computer with internet acces and Bubbl, activity booklet

**Note:** You may want to do a lesson on how to use the Bubbl program and give time for students to play around with it during this unit but before doing this activity

**Differentiation Options:**

* You may have to do a demonstration with another group of items first
* You can change it so that only 2 items are left in each group at the end
* Assist students with Bubbl. Model how to create the mind map first

**Activity 4**

**Time:** 1x60 minute session

**Outline:** Students work as a group to categorise given objects. Have students list all the attributes of the items that are the same or similar and prompt them to list attributes that are not physical (ie. Their uses, flavours, storage options etc). They then put the data in a graph of their own using Word in the activity booklet

**Resources:** a carton of milk, a frozen pizza, apples, coco pops, pasta, a tin of sliced pineapple, fresh carrots, a packet of cheese, a packet of bread rolls, a packet of biscuits, a container of apple juice, a carton of eggs, a tin of dog food, a packet of fish, packaged chicken, sugar, rice, a bar of chocolate, and a packet of Cheezels, computer, activity booklet

**Note:** Students may need a lot of guidance when making their own data displays (ie. working with tables) May want to introduce and model this in an earlier lesson in this unit or allow for time for them to create the graph

**Differentiation Options:**

* Assist strugglers
* Allow for multiple ways of displaying data not just by using a table
* Make sure most products are labelled and are commonplace products
* Discuss as a whole class/in pairs/in groups if needed

**Final Activity**

**Time:** 3x30-45 minute lessons (time to complete the survey is included in this)

**Outline:** Students create their own survey question about what piece of new sports equipment the school should get. They ask people in their class or school what equipment they would like and collect that data. The students create an electronic representation of the data in a form that suits them. Finally, they discuss and review the data.

**Resources:** computers with internet access, activity booklet, instruments to gather data

**Note:** This activity attempts to sum up all that the students have learned into one final piece. If desired you may use the attached rubric to use this final task as an assessment piece.

**Differentiation Options:**

* Allow students to choose their own options for sports equipment or have their surveyors choose
* Allow the students to display the data in a way that suits them and the task
* Students can gather the data in whichever way the please but the a copy of the data gathering method should be obtained for assessment purposes
* The theme of this activity can be changed to something such as ‘tuckshop food’ as desired by yourself and the students
* Allow students to survey other kids outside of your classroom to provide further engagement
* You can have students write about their survey gathering experience/method if your students are higher achievers

**Rubric**

|  |  |  | **Applying (AP)** | **Making connections (MC)** | **Working with (WW)** | **Exploring (EX)** | **Becoming aware (BA)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **The folio of a child’s work has the following characteristics:** |
| **Understanding dimension** | **Knowledge and understanding** | **Representation of data** | use of [digital systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Digital+systems) to clearly and effectively represent simple patterns in [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) in different ways | use of [digital systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Digital+systems) to effectively represent simple patterns in data in different ways | use of [digital systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Digital+systems) to represent simple patterns in data in different ways | guided use of [digital systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Digital+systems) to represent simple patterns in [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) in different ways | directed use of [digital systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Digital+systems) to represent simple patterns in [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) |
| **Skills dimension** | **Processes and production skills**Evidence of creating digital solutions | **Collecting, managing and analysing data** | comprehensive collection of familiar [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) and display of the data to clearly and effectively convey meaning | detailed collection of familiar [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) and display of the data to effectively convey meaning | collection of familiar [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) and display of the data to convey meaning | guided collection of familiar [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) and display of the data to convey aspects of meaning | directed collection of familiar [data](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Data) and display of the data |
| **Collaborating and managing** | considered creation and organisation of ideas and information using [information systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Information+systems)  | effective creation and organisation of ideas and information using [information systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Information+systems)  | creation and organisation of ideas and information using [information systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Information+systems)  | guided creation and organisation of ideas and information using aspects of [information systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Information+systems) | directed creation and organisation of ideas and information using aspects of [information systems](http://www.australiancurriculum.edu.au/glossary/popup?a=T&t=Information+systems)  |

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| --- | --- |
| **Key** | Shading emphasises the key aspects of the achievement standard and qualities that discriminate between the descriptors. Key terms are described overleaf. |
|  | **Prep to Year 2 standards** |
|  | **AP** | The child applies the curriculum content and demonstrates a thorough understanding of the required knowledge. The child demonstrates a high level of skill that can be transferred to new situations. | **EX** | The child is exploring the curriculum content and demonstrates understanding of aspects of the required knowledge. The child uses a varying level of skills in situations familiar to them. |
|  | **MC** | The child makes connections using the curriculum content and demonstrates a clear understanding of the required knowledge. The child applies a high level of skill in situations familiar to them, and is beginning to transfer skills to new situations. | **BA** | The child is becoming aware of the curriculum content and demonstrates a basic understanding of aspects of required knowledge. The child is beginning to use skills in situations familiar to them. |
|  | **WW** | The child can work with the curriculum content and demonstrates understanding of the required knowledge. The child applies skills in situations familiar to them. |  |  |