

Second Level - Beyond Number Information Handling Homework Cards



IH2.1 I can collect and sort data and present information in tallies, frequency tables and grouped frequency tables

Tally questions Ask children to choose something around the home, garden or street where there are different kinds of things to count (e.g. insects, cars, toys, tins of food). They create a tally chart to record the number of each kind (e.g. beetles, spiders, woodlice). Then they rewrite the tally chart as a frequency table. Finally, they use their data to create some questions. Back in class pairs swap tables and answer each other's questions.



IH2.1 I can collect and sort data and present information in tallies, frequency tables and grouped frequency tables

Letter tally Ask children to draw up a tally chart to record the occurrence of any five letters. They open a book or newspaper randomly and record how many times each of their letters occurs in the first two sentences. They repeat, tallying the appearance of the same five letters on another page. Is the same letter most common each time? What else do they notice?



IH2.2 I can display information in pictograms, bar and bar line graphs and understand the impact of scale on these

Coin toss *coin, paper* Ask children to toss a coin 50 or more times and record whether they get heads or tails each time. Ask them to display their data on a bar line graph, complete with title and labelled axes.



IH2.2 I can display information in pictograms, bar and bar line graphs and understand the impact of scale on these

Why is it important? *media sources (e.g. newspapers, magazines, TV, internet)* Ask children to find examples of pictograms, bar graphs and bar line graphs in different media sources (e.g. TV, internet, newspapers, magazines). They record these (cutting or printing out or writing/copying). They cover up any titles, scales, labels, etc., then write some statements about why these are important.



IH2.3 I can sort data using Venn, Carroll and tree diagrams

Explain it Ask children to choose from a tree, Carroll or Venn diagram and create a poster which explains what it is, how it is created and how it works.



IH2.3 I can sort data using Venn, Carroll and tree diagrams

Create your own Ask children to make a Venn diagram, sorting items at home (e.g. TV programmes, games, dolls) according to their own chosen criteria. Back in class they make up questions to ask each other about their diagram.



IH2.4 I can talk about how likely something is to happen and can order events on a simple probability scale

When was it said? *media sources (e.g. newspapers, magazines, TV, internet)* Ask children to record five examples relating to probability or chance from the media (e.g. TV, internet, newspapers, magazines).



IH2.4 I can talk about how likely something is to happen and can order events on a simple probability scale

Scenarios Ask children to record four different situations in pictures and words and then put them in order of their probability. Back in class children share and discuss the situations they created.



IH2.5 I have explored and designed questionnaires to help me answer questions and solve problems

Product numbers Ask children to invent a product such as 'Magic shine' shampoo. They make up some number facts about it that show it is very popular/not at all popular (e.g. 50 out of 139 people said they use this shampoo). Back in class, pairs look at each other's number facts and decide how popular the product is.



IH2.5 I have explored and designed questionnaires to help me answer questions and solve problems

Company questions Ask children to choose a product advertisement that they have seen. They make up some questions about this product which the company might use to find out how well the public like this product.



IH2.6 I can use a database to gather, filter and sort information

Database examples *APM 627 and 628* Ask children to use the blank database on APM 627 and one of the strips showing fields on APM 628. They invent three sets of records using the categories given. They can be as fantastical as they like. Back in class pairs share and discuss their work.



IH2.6 I can use a database to gather, filter and sort information

Leisure database Ask children to create a database about the TV programmes they watch, the magazines they read or the games they play over a week. Back in class they compare the information in their databases and the fields which they chose.



IH2.7 I can interpret information presented in a pie chart

Pies all around Ask children to sort their toys/the tins in the cupboard/the junk in the kitchen drawer/the cars in the road into categories and to record the numbers of each. They show this information in a pie chart. It need not be very accurate.



IH2.7 I can interpret information presented in a pie chart

My day in a pie Ask children to estimate how long they spend doing different activities on a typical Saturday. They show this information in a pie chart. It need not be very accurate.



IH2.8 I can interpret and create line graphs

Lines all around *media sources (e.g. newspapers, magazines, TV, internet)* Ask children to find examples of line graphs in different media sources (e.g. TV, internet, newspapers, magazines). They record these (cutting or printing out or writing/copying). Back in class they create a display of their graphs.



IH2.8 I can interpret and create line graphs

Continuous data Ask children to sketch a line graph to show something around the home that changes over time (e.g. height of a sunflower, volume of water lost from a dripping tap, temperature in a sunny room).



IH2.9 I can explore the probability of an event and can represent this numerically

Scenarios Ask children to record in pictures and words three situations on the probability scale: one which is close to 1; another which is close to 0; another that is around the middle. Back in class they share and discuss the situations they imagined.



IH2.9 I can explore the probability of an event and can represent this numerically

What are the chances? Ask children to imagine they have been asked to create new flavours of chocolates for a new chocolate box. They need to decide and describe how many of each flavour or type of chocolate will go in the box. Then they write three questions about the probability of randomly picking certain chocolates. Back in class, pairs of children swap information about their boxes and answer each other's questions.



IH2.10 I have explored a variety of ways to find the average of a set of data

Define it poster-making materials Ask children to create a poster to explain what mean, median and mode are.



IH2.10 I have explored a variety of ways to find the average of a set of data

Average words? *book, newspaper or advertisement, calculator (optional)* Ask children to choose a page in a book, a column in a newspaper or an advertising leaflet. They count and record the number of words in each sentence, then calculate the mean, median and mode. Back in class, discuss and compare their results. *What kind of writing has long sentences? What kind has short sentences? Do some kinds of writing have a wide range of sentence lengths?*



IH2.11 I can use my knowledge of gathering data and presenting information to solve more complex problems

Effective adverts *media sources (newspapers, magazines, internet)* Ask children to select some adverts from the media that involve the use of displays or statistics. They should decide which of these are effective and why.



IH2.11 I can use my knowledge of gathering data and presenting information to solve more complex problems

Is it quite correct? *media sources (newspapers, magazines, internet)* Ask children to try to find examples in the media of the use of statistics or displays that might be misleading. They collect or record these for discussion in class.
