

No science stands alone. Language such as "by size" or "according to weight" can be used in classifications to explain how something can be grouped or divided. In an example provided, low-carbon flat-rolled steel products are classified into categories like hot-rolled sheets, cold-rolled sheets, hot-rolled strip, and tin mill black plate based on their characteristics. Steel castings are also classified commercially into low-carbon steels and medium-carbon steels based on their carbon content. Various sentence patterns and prepositional phrases can be used to describe the classification process. Comparing involves highlighting similarities and differences between two or more objects, facts, or ideas that share common characteristics. Various sentence structures can be utilized to express different types of comparisons, such as emphasizing similarity or dissimilarity. When emphasizing similarity, phrases like "similar to," "like," "equal to," and "no different from" can be used. Modal verbs like "may" and "could" can be used to soften statements, such as changing "Our data are expected to show" to "Our data would be expected to show." It is important to discuss the insecurities of the evaluation as a final step in the process. Using adverbs and attitudinal adverbs can soften statements, especially when making generalizations or avoiding exact numerical data. Signposting devices help connect ideas in a clear and straightforward manner for readers to follow. Noun substitution and addition techniques aid in reinforcing points. Sequencing words and phrases help establish logical relationships between ideas and connect them effectively. The text discusses various ways to express ideas clearly and effectively in writing. It mentions the importance of reformulating ideas to reinforce their significance or to enhance clarity. Additionally, the text highlights the use of inference to deduce information from previous statements. It emphasizes the significance of highlighting specific words, points, or ideas to draw attention to them. Furthermore, the text discusses the importance of using words and phrases that indicate cause and effect to establish logical connections between different parts of a text. Overall, the text provides guidance on how to structure sentences and paragraphs to improve the coherence and clarity of written communication. It emphasizes the importance of expressing ideas in different ways to enhance understanding. Additionally, it highlights the significance of using phrases that indicate cause and effect to establish logical connections between different parts of a text. The text also emphasizes the importance of highlighting specific words, points, or ideas to draw attention to them. The text discusses common phrases for introducing cause and effect, such as "due to," "resulting from," "hence," and "consequently." It provides phrases like "in general" and "on the whole" to aid in this generalization process. Additionally, the text highlights the significance of considering different model types and spatial filters in numerical analysis. It mentions that sharp-cut-off type filters were found to be problematic compared to top-hat filters, and the best model/filter combinations were established for model 8 based on a priori testing. Lastly, the text points out that the values of certain parameters and the solutions obtained are dependent on material properties. It suggests that the values of these parameters influence the overall form of the solutions in the context of the study. Agreeing and disagreeing are common in spoken English and scientific writing. Writers express agreement or disagreement when comparing findings with other scientists. Phrases like "These results agree with X's research" are used. Contrasting ideas are addressed with phrases like "on the one hand...on the other hand" and "despite." Example sentences show how these phrases can be used to present different perspectives or conflicting

information. The text emphasizes the importance of using appropriate language to convey cause and effect, results, and contrasting ideas effectively in writing. The text discusses the transition to a new topic and provides useful phrases for this purpose, such as "with reference to" and "let us now turn to." These manuals are readily available for various fields of science and disciplines, guiding writers on the appropriate writing style to adhere to. Research papers are typically aimed at scientists in the same field, leading to a more specialized readership compared to articles. Phrases like "owing to," "as a result," and "although" are highlighted as ways to introduce cause and effect relationships. Example sentences show how these phrases can be used to explain connections between events. The text also suggests phrases for expressing results, such as "thus" and "therefore," and provides examples to clarify their meaning. The writing style of scientific articles varies based on the intended readership, with scholarly journals allowing specialized vocabulary while popular magazines aim for accessibility. Using phrases like "seem to," "appear to," and "tend to" can also add a level of uncertainty to statements. Hedging statements can help to avoid sounding too direct or over-positive. It is recommended to use phrases like "It is better for the use of equivalence factors for ecotoxic effect to be avoided" instead of "The use of equivalence factors for ecotoxic effect should be rejected." The structure of a research paper is more defined, consisting of 8 sections that follow a specific sequence, including the title, abstract, introduction, methods and materials, results, discussion, conclusion, and references cited. Writers should avoid using first person pronouns like "I" and instead use "we" for a more inclusive tone. Tentative verb forms can soften statements, such as using "intended as a contribution" instead of "contribute." Feedback on the draft is crucial for the compilers, including individuals from various universities in different countries. The conclusion section summarizes the findings, draws conclusions about the hypothesis, discusses the research's implications, and proposes additional research. Hedging in scientific writing involves avoiding absolute statements, overgeneralizations, and toning down the certainty of claims to allow for disagreement. Direct argumentation may be off-putting to some readers, necessitating the use of hedging phrases and techniques for better communication and rapport. Modal verbs like "can" and "might" can indicate uncertainty and soften statements. For example, "It will be of interest to compose" can be hedged to "It might be of interest to compose." Additionally, phrases for expressing results and contrasting ideas are presented, along with example sentences to demonstrate their usage. Scientific articles are typically published in journals, magazines, and newspapers to reach a broader audience than research papers. Following the specific style standards outlined in Style Manuals for each discipline is essential for writers to maintain consistency and credibility in their work. The discussion section evaluates and interprets the results, addressing whether the hypothesis was supported and citing relevant results. The purpose of a proposal is to convince funders that the research is valuable and worth investing in. A proposal must be persuasive, request funding, promise completion of the project, and outline a detailed plan for the research. Appendices may include resumes of researchers, references, board members, organization charts, letters of support, and relevant charts, graphs, and tables. Furthermore, the text emphasizes the process of generalizing information, which involves summarizing what has been discussed previously. The classification model includes elements like the superordinate term, the feature used for classification, and the items grouped together in a class. The handbook is a guide for

researchers writing scientific work in English, aiming for clarity and accuracy. Components of a proposal typically include a cover letter introducing the researchers, the reason for the research, cost, length, and benefits of the project. It emphasizes the importance of establishing the need for the research and showcasing the credibility of the researchers. Authors use hedging to maintain objectivity, avoid personal bias, and prevent appearing overly confident. These devices are commonly employed in introductions and conclusions to establish a more balanced tone. Verbs and phrases like "We entirely agree with his views" show varying degrees of agreement. Disagreement is expressed with phrases like "We completely disagree with X." Linking phrases like "In actual fact" are used to contradict others. Partial disagreement is shown with phrases like "We agree with X's findings up to a point." Classifying involves assigning an object or term to a pre-established class based on similarities and differences. Research results are interdisciplinary, leading to unforeseen consequences and advancements in various fields. The writer's ability to present main ideas, supporting evidence, analyses, and conclusions in a structured manner is crucial for effective communication. The title of a research paper must accurately describe its contents, while the abstract provides a brief overview. Proposals are essential for researchers to secure funding for their projects. A needs assessment section should address the motivation behind the research, how it aims to meet the need, and the qualifications of the researchers. Pre-evaluation should explain how the project will be evaluated, what data will be gathered, the expected project length, and how results will be disseminated. Scientific and technical writing can take the form of scientific articles, research papers, and proposals. The structure of a scientific article includes the introduction, main body, and conclusion, each requiring a logical flow of ideas. Articles and essays must be well-organized, with a clear introduction, development of ideas in the body, and a conclusive end. They can be found in specialist journals or presented at conferences. The introduction outlines the research's purpose, hypothesis, background information, and literature review. Methods and materials detail the equipment and methods used, while results present the research findings, often including visual materials. The references cited section lists all references used, including those cited in the literature review. Each element of a research paper is further explained in Chapter 2 Composition, with variations possible depending on the research nature. A title page with project details, a table of contents for longer proposals, and a summary of 150–300 words are also common elements in a proposal. The cover letter and summary are crucial parts of a proposal that should be carefully crafted to make a strong case for funding. Objectives should outline the research goal, expected results, benefits, and how they align with the needs. The methods section should detail how the research will be conducted and justify the proposed methods and timeline. Scientific writing aims to convey information clearly and concisely, starting with the title. A title should be precise and informative, avoiding poetic or stylized language. However, switching between forms can engage readers effectively. It also provides example sentences to illustrate these concepts. It also mentions the importance of marking the shift to a different subject in academic writing. Research must be published in an accessible manner for all, not just fellow researchers. The text provides a structured guide for writing a research proposal. The purpose of a research paper is to present findings for others to utilize. Papers should be organized logically for the dissemination of knowledge. The handbook is a pilot version, with the final edition expected in 2001. The

introduction should include background information on the research need and details about the researchers and their organization. Long-term financial plans should be specific, detailing how the project will be funded beyond the grant period. The budget section must itemize materials needed and their costs. Personnel details who will be involved in the research, their specific roles, and responsibilities. It should clearly indicate the topic, focus, and optionally the purpose of the writing. Punctuation in titles should follow specific rules, using capital letters for main words. Titles should be clear, concise, and stand alone. Research findings must be shared with the world to be of real use.