**Equivalent Fractions**

**Fraction Hopscotch**

**Players: 2**

**Materials: Fraction Hop chart/board, dice**

**Topic: Equivalent Fractions**

**Procedure**

* Players place their markers on start to begin the game.
* Players take turns to roll both dice.
* The numbers on the dice should be used to form a fraction with the smaller number representing the numerator and the larger number representing the denominator.
* Players should give an equivalent fraction to that represented by the dice.
* If they are successful then they will move their markers; the number of spaces moved will be determined by the number used to represent the numerator.
* If the player fails to give an equivalent fraction he or she loses a turn.
* If the player gets a double (1/1, 2/2, 3/3, …) the player throws again.
* The first person to reach or pass the end square is the winner.

**Worksheet #**

***Draw a diagram depicting fractions equivalent to the one shown.***

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| --- | --- |
| **A** | **B** |
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**RESEARCH PROJECT**

**Objective:** Students should be able to use skills learnt to successfully conduct a research project as well as present findings and make recommendations.

**CONDUCTING THE RESEARCH PROJECT**

**Step 1:** place students in small groups

**Step 2:** guide students to decide on a topic of study which should be reflective of students’ issues or concerns within the class or school.

**Step 3:** guide students to choose and design the data collection instrument to be used and to select their sample size.

**Step 4:** working in groups students will collect important data about the topic being studied.

**Step5:** students will sort data collected in a meaningful way to identify patterns and infer theories.

**Step 6:** students will report on the content using appropriate graphs.

**Step 7:** use the information from the graphs to make decisions and also make recommendations that can contribute to the solution of the issues.

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| **RUBRIC CATEGORY** | **1** | **2** | **3** | **4** | | **5** | |
| **Statement of Project Topic** | Topic is poorly stated and unclear/ topic had to be generated by the teacher | Student requires prompts to generate the topic | Topic is generated by students but shows error in punctuation/ structure. | Topic is generated by student with minor errors in structure | | Topic is generated by student and is stated using a complete sentence, an appropriate caption or a question that is clear and understandable. | |
| **Data Collection Instrument** | No thought was given to the choice of the instrument used and therefore was unsuitable | Little thought was given to the choice of instrument which was reflected in it being limited in effectiveness | The selected instrument was  Was limited for the data being collected | The selected instrument was a suitable choice for the data collected but not the most effective | | The selected instrument is the most effective choice for the data to be collected. | |
| **Group Work** | Student did not work effectively with others | Student was able to work effectively with others on a few tasks. | Student was an engaged partner but had trouble listening to others’ suggestions and/or working cooperatively | Student was an engaged partner and showed some willingness to take the suggestions of others in some instances | | Student was an engaged partner, listening to suggestions of others and working cooperatively throughout the project period | |
| **Selection of Sample Size** | The sample size used was far below the expected standard  (5 or less) | The sample size used was below the standard. ( 5 to 10) | The sample size used was average  (10 to 15) | | The sample size used met expectation (20 to 22) | | The sample size used met or exceeded expectation (25 or more) | |
| **Organization of Data** | Lacks organization | Illogical sequence /organization  with no evidence of descriptive headings | Illogical sequence with ambiguous headings | | Data showed some degree of organization but headings were limited in description | | Data collected was well organized using a neat and understandable tally chart with clear headings | |
| **Statistical Representation** | Diagrams were unclear and were difficult to understand/ interpret | Some diagrams were unclear and were without appropriate labels | A few diagrams were clear and only some had labels | | Diagrams were clear but some were unlabeled or some labels were ambiguous | | Diagrams are clear and well-labeled, and greatly add to the readers’ understanding of the findings. | |
| **Report on Findings** | A conclusion is reached but no recommendation is given | A conclusion is reached and few recommendations are made based on findings | Some  conclusions and recommendations are made, however some are impractical and irrelevant to the findings | | Many conclusions and recommendations made are practical, logical and based on findings. | | All conclusions and recommendations made are practical, logical and based on findings | |
| **Neatness and Organization** | Almost all aspect of work presented are unclear and unorganized | Most aspects of work presented are unclear and unorganized | Some aspects of work presented are not clear and somewhat unorganized | | Most aspects of the work are presented in a neat, clear, organized fashion that is easy to read | | All aspects of the work are presented in a neat, clear, organized fashion that is | |