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| --- | --- |
| **Subject:** | Mathematics |
| **Title:** | Hockey Time |
| **Grade Level:** | 3 |
| **Purpose:** | For students to analyze the time commitment it takes to play hockey at an elite level.  |
| **Curricular****Connections:** | * Relate the passage of time to common activities, using nonstandard and standard units (minutes, hours, days, weeks, months, years).
* Relate the number of seconds to a minute, the number of minutes to an hour and the number of days to a month in a problem-solving context.
* Construct, label and interpret bar graphs to solve problems.
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| **Materials:** | * Hockey Time Activity Sheet
* Graph Paper
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| **Activity:** | 1. Have students brainstorm how an athlete who plays hockey at an elite level would use their time. What would they need to do to be the best they can be at their sport? (games, practice, working out).
2. As a class, estimate how much time an athlete might spend on the various activities.
3. Review with students the various ways of measuring time and how they are related (ex. 1 hour is 60 minutes, 1 day is 24 hours etc.)
4. Hand out the Hockey Time activity sheet.
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| **Extension:** | Graph results |
| **Assessment:** | Does the student understand:* The relationship between the various ways of measuring time and how they are related to various activities?
* How to use their understanding of time in a problem-solving context?
* How to graph their findings?
 |

**Hockey Time**

Name: \_\_\_\_\_\_\_\_\_\_\_

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| **Time Requirements of an Elite Hockey Player:*** Play one game a week (3 periods, 20 minutes each)
* Practice twice a week (One and a half hours each time)
* Workout 3 times a week (45 minutes each time)
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Use the calendar below to help answer the questions:

|  |
| --- |
| **May 2015** |
| Sun | Mon | Tue | Wed | Thurs | Fri | Sat |
|  |  |  |  |  | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |  |  |  |  |  |  |

1. Hockey games are scheduled every Saturday. How many games would they play in the month of May?
2. Using the answer from question one as the average number of games in a month. How many games would they play in total over a year if they played every month?
3. How many minutes are in one hockey game?

1. How many hours do they spend playing hockey games in the month of May?
2. If they practice Tuesday and Thursday, how many minutes would they spend practicing in a week?
3. How many practices would they have in May?
4. What is the total time they would spend practicing in the month of May?
5. How much time does an athlete spend working out to keep in shape in a week?
6. If they work out Monday, Wednesday and Friday what is the total time they would spend keeping their bodies in shape in the month of May?

**\*\*\* Challenge\*\*\***

Graph the hours spent playing games, practicing and working out in the month of May on the sheet provided. Label the graph.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Title)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hours | **13** |  |  |  |
| **12** |  |  |  |
| **11** |  |  |  |
| **10** |  |  |  |
| **9** |  |  |  |
| **8** |  |  |  |
| **7** |  |  |  |
| **6** |  |  |  |
| **5** |  |  |  |
| **4** |  |  |  |
| **3** |  |  |  |
| **2** |  |  |  |
| **1** |  |  |  |

1. What do elite athletes spend the most time on?
2. What do they spend the least amount of time on?