

GED 2002 Teachers' Handbook of Lesson Plans

Area/Skill - Mathematics	Cognitive Skill Level - Analysis	Correlation to Framework - 05.08/05.16	Lesson Number - 12
<p>Activity Title – Making Predictions</p> <p>Goal/Objective</p> <p>Students will be able to make accurate predictions based on probability and list possible outcomes.</p> <p>Lesson Outline</p> <p>Introduction</p> <p>Predicting the likelihood of an event taking place is a valuable decision making skill. This lesson will present techniques to help students sharpen this skill.</p> <p>Activity</p> <p>If a day is chosen at random from the month of September there are 30 possible outcomes. If you hope to randomly pick a date containing the number 3, the possible outcome now becomes 2/30 or 2 out of 30. This can be illustrated by the formula $P = \text{number of favorable outcomes divided by number of possible events}$. Using the sample calendar of September state the probability of choosing the following:</p> <ul style="list-style-type: none"> • A Saturday • A Monday or Tuesday <p>If an individual has a choice of 3 shirts, 4 slacks and 3 sweaters, predict how many different outfits can be worn. Sketch the problem. $3 \times 4 \times 3 =$</p> <p>The class obtains an ant farm for a project. The farm can hold 100,000 ants. When the farm was set up it contained 1500 ants. The next day there were 3000 ants. On the third day there were 6000 ants. Predict when the ant farm will reach capacity? Draw a chart or table. 7 days.</p> <p>Debriefing/Evaluation Activity</p> <p>Discuss the value of making accurate predictions in daily life.</p>		<p>Materials/Texts/Realia/Handouts</p> <ul style="list-style-type: none"> • Handout - Calendar • Paper, pencils • Overhead/chalk board • Newspaper • Spinners 	
<p>Real-Life Connection</p> <p>Distribute newspapers and instruct students to search for stories that involve accidents and injuries. Make a list and determine if the situation was a random occurrence or if it could have been predicted and prevented.</p>		<p>Extension Activity</p> <p>Create a spinner divided into four different colored sections. Predict the probability of landing on a given color in a given number of spins.</p> <p>ESE/ESOL Accommodations</p> <ul style="list-style-type: none"> • Break the information into steps or key components. • Use graphics to illustrate concepts. • Use hands-on activities to solve problems. 	

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Activity Title - Making Predictions

Introduction

Ask: Have you ever had to predict whether something would happen? Are there situations where you trust the predictions and do something? What are some of those types of predictions? Sample answers may include: weather forecasts, the stock market, changing jobs based on a possible raise, etc.

Main Activity

Say: Today, we are going to talk about making different predictions and solve problems using different skills.

Provide students with the problems listed under the *Activity* section of this lesson plan. Have students work in small groups to solve each problem. Assist them in drawing pictures, making charts or using formulas to solve the problems. Have the students share their answers with the class. Discuss the different methods students used to predict the answers.

Ask: Is it easier to make predictions when you use graphics such as charts or tables? Why or why not?

Closure/Conclusion

Predicting the likelihood of an event taking place is a valuable decision making skill. In your daily life at work and in the community, where do you use the skill of prediction? Have the students brainstorm all of the different ways that predicting something is used in the real-world.

Follow-Up Lessons/Activities

Discuss with students how probability is often used in conjunction with the word prediction. Create a spinner divided into four different colored sections. Have students predict the probability of landing on a given color in a given number of spins. Write down the students' predictions for each color. Once each student has made his/her prediction, have the class use the spinner to determine the probability of it landing on a given color. Check to see which students were best able to predict what happened. *Ask:* How did you make your prediction? See whether any students used strategies other than guessing.

March 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						<i>1</i>
<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>	<i>15</i>
<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>20</i>	<i>21</i>	<i>22</i>
<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i>	<i>29</i>
<i>30</i>	<i>31</i>					