Line Graph Adventure

**Name:** Click or tap here to enter text.

**Instructions**

1. Roll two dice and calculate the sum. Use table one to determine the events that occurred when Craig walked to school.
2. Record these events in table two and calculate how Craig’s heart rate changed over his journey to school.
3. Complete the line graph on page two by moving the blue lines to show how Craig’s heart rate changes over his walk to school.

*Table One: Events*

|  |  |  |
| --- | --- | --- |
| **Dice sum** | **Event** | **Heart rate change (bpm)** |
| **2** | **Chased by a dog** | **+20** |
| **3** | **Stop and talk to a friend** | **-20** |
| **4** | **Swooped by a magpie** | **+15** |
| **5** | **Stopped at a don’t walk sign** | **-10** |
| **6** | **Walk up a hill** | **+11** |
| **7** | **Help an old lady with heavy bags** | **+18** |
| **8** | **Buy a drink at a shop** | **-17** |
| **9** | **Pat a friendly dog** | **-15** |
| **10** | **Wait for the lolly pop lady** | **-20** |
| **11** | **Run to catch up to friend** | **+15** |
| **12** | **No event** | **No change** |

*Table Two: Events that occurred on Craig’s walk to school*

|  |  |  |  |
| --- | --- | --- | --- |
| **Minute** | **Dice sum** | **Heart rate change (bpm)** | **Heart rate (bpm)** |
| **0** | **-** | **-** | **100** |
| **10** | Dice sum | HR change | Heart rate |
| **20** | Dice sum | HR change | Heart rate |
| **30** | Dice sum | HR change | Heart rate |
| **40** | Dice sum | HR change | Heart rate |
| **50** | Dice sum | HR change | Heart rate |
| **60** | Dice sum | HR change | Heart rate |
| **70** | Dice sum | HR change | Heart rate |
| **80** | Dice sum | HR change | Heart rate |
| **90** | Dice sum | HR change | Heart rate |

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Heart rate (bpm)

Time (min)

Line Graph Adventure

**Questions**

1. What was Craig’s highest heart rate?

|  |
| --- |
| Click or tap here to enter text. |

1. At what time was Craig’s heart rate the lowest?

|  |
| --- |
| Click or tap here to enter text. |

1. Describe the type of events made Craig’s heart rate increase?

|  |
| --- |
| Click or tap here to enter text. |

1. Describe the type of events made Craig’s heart rate decrease?

|  |
| --- |
| Click or tap here to enter text. |

1. How do you think actual changes in a person’s heart rate would differ from the ones that you calculated in this activity?

|  |
| --- |
| Click or tap here to enter text. |

**Problem solving**

Are you able to calculate Craig’s average heart rate for his walk to school?

**Things to consider**

* How do you calculate an average?
* How many heart rate readings were represented on the graph?
* What was the total of all your heart rate readings?

**Further activity**

Design your own line graph adventure in a different situation? Ideas to consider are walking through the jungle, a day at the beach.

After you complete your adventure get a partner test it out!