New Year's Eve Timeline

An inquiry into fractions and time

The Math Dogs

Your task: Plan an amazing party for you and your friends to bring in the new year!

You'll need to:

- **Plan 7-10 fun activities from 8:00pm-12:00am**

- **Label these activities on your timeline (include the length of time and an associated fraction)**

- **Use at least five different fractions of time**
  - **These fractions can be like the example (dividing up 1 hour)**
  - **OR, your fractions can be dividing up different timings (i.e. out of 2 hours or out 4 hours). For example, a 30 minute activity out of 4 hours is 30/240, simplified to 1/8.**

Time & Fractions

The Math Dogs

Time and fractions are closely aligned!

Think about 15 minutes, for example.

That is exactly ¼ of an hour or **15mins** + 15mins + 15mins + 15mins = 60mins

Or, 10 minutes, for example.

That is exactly 1/6 of an hour or **10mins** + 10mins + 10mins +10mins + 10mins +10mins = 60mins

What other fractions can you make with time (using 1 hour)?
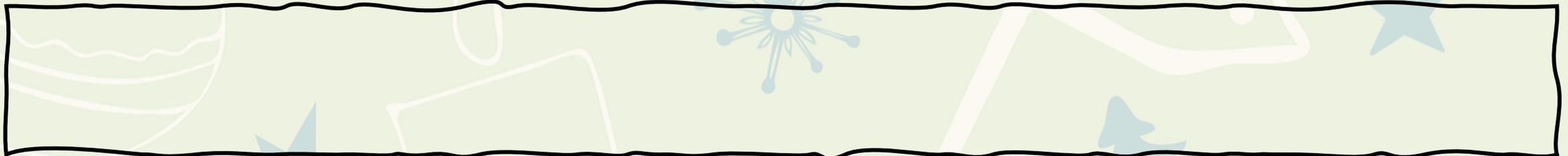
Activities Timeline

EXAMPLE

Karaoke!

1/3 of an hour

20 mins

8:00 PM   9:00 PM   10:00 PM   11:00 PM   12:00 AM

Eating dinner (pizza, soda, and chocolate cake!)

3/4 of an hour

45 mins

Making decorative hats

to wear!

½ of an hour

30 mins

Activities timeline

8:00 PM   9:00 PM   10:00 PM   11:00 PM   12:00 PM
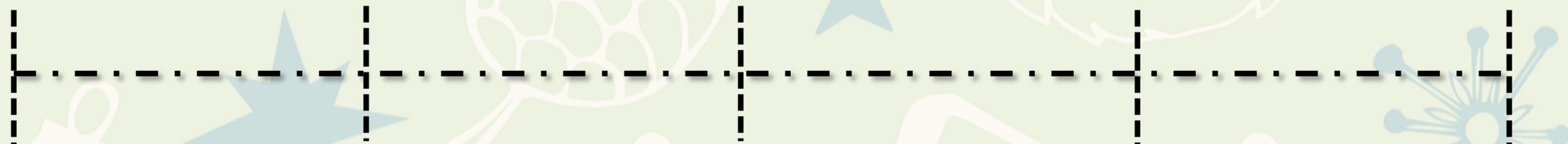
Inquiry Questions

When you're planning your party schedule with fractions, how do you figure out how long each activity should last? What math ideas do you need to think about?

How would you explain to a friend how you decided on the time for each activity using fractions? Can you make it easy for them to understand?

Imagine you suddenly must add a surprise activity to your party. How would you change your plan to make room for it? Which fractions would be different, and what's your thinking behind it?

What would you do if the total time for all your chosen activities was more than four hours? How could you use what you know about fractions to decide which activities to shorten or remove?

Can you think of a time outside of school where you might use what you've learned about dividing time with fractions? Maybe at home or in a game...