

First level: Ice Cream Van

Outcomes

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| Curriculum for Excellence Outcomes | I can tell the time using 12 hour clocks, realising there is a link with 24 hour notation, explain how it impacts on my daily routine and ensure that I am organised and ready for events throughout my day. MNU I-10a |
| | I have explored a variety of ways in which data is presented and can ask and answer questions about the information it contains. MNU I-20a |
| | Using technology and other methods, I can display data simply, clearly and accurately by creating tables, charts and diagrams, using simple labelling and scale. MTH I-21a |

Additional resources

Optional: PM I
(Preliminary activity)

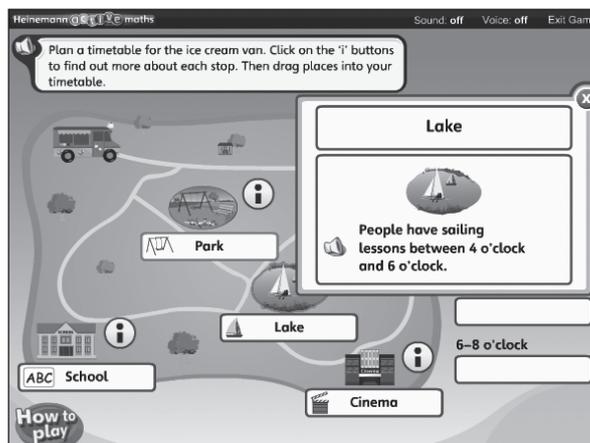
Prerequisite knowledge and skills

Children should have had experience of:

- Using timetables to show the order of events in a day with reference to o'clock times
- Counting and comparing groups of objects to see which is 'more' and to find totals

What's the problem?

Children plan a route for an ice cream van, visiting places at certain times, according to information given. They find out number and types of ice creams sold at each place. This activity is open-ended and works best if the teacher sets a challenge such as: *Plan a route to sell the most ice creams.* 'Ice creams' refers to all the available products, not just cones.



The activity screen where the route is planned. The information panel for the lake is open. The time slots are on the right of the screen.

Watching the video

The video talks about the decline in numbers of ice cream vans (from 20 000 forty years ago to 5000 today) owing to competition from supermarkets and so on. Watch the whole clip and then ask:

- *Has anyone used an ice cream van?*
- *Do they come up your road so you can hear the jingle playing and come out to buy one?*
- *Are there any places where you often see one?*
- *If you owned an ice cream van, where would you take it to sell the most ice creams?*
- *Would you need to go to certain places at particular times of the day?*

How to play

Children look at a map showing locations and click on icons for information. This guides their decisions about which location to go to and when. For example, information about the school should encourage them to visit the school just after 3 pm. Once decisions have been made, they drag location icons on to a timetable. There are five locations and five time slots, but they do not have to use all the time slots and can repeat locations. On completion, the van does the round of their choice; a results page shows number and type of ice creams sold at each location and total number sold. They use this information to compare attempts and see if they have met the challenge set by the teacher, for example: *Sell the greatest number of choc ices.*

Preliminary activity

This activity could be carried out by children away from the computer, to prepare them for the computer activity. It would be useful for lower-ability children. PM 1 shows all the location 'information panels'. Read and discuss these, helping children translate this information into advice about which locations to visit and when. Cut and order these locations to form possible routes.

Strategies

- Make sure children use the information panels to guide their decision making.
- When the results page is shown they can see the total number of ice creams sold and note this number down. Encourage them to repeat the activity, changing the locations/times, and note the different number of ice creams sold.
- Ask them to explain why certain sales resulted. For example, no sales at the cinema before 6 pm because it is shut. Now set additional challenges to refine their thinking.

Questions to ask

Before the activity

- *Where would an ice cream van sell a lot of ice creams? (where there are lots of people)*
- *When do you think it is busy outside a school? What about a cinema? Would different ice creams be sold at the different places?*
- *How can we find out when lots of people will be at each of these places? (read the information panels)*
- *Which place will you visit first?*

During the activity

- *Which place will you go to next? When should you go to the lake?*
- *When would be a bad time to go to the school? Why?*
- *What type of people will be at the shops? Which ice creams might be popular with them?*
- *Are you happy with the delivery order you have chosen?*

After the first attempt

Questions asked at this point would vary according to the challenge set by the teacher.

- *How many ice creams did you sell?*
- *Were some of the locations better for ice cream sales than others?*
- *Were there any places where you sold no ice creams? Why was this?*
- *Could you change the route and get better ice cream sales?*

Varying the problem

Suggest that children:

- Visit each location at its busiest time. How many ice creams do they sell?
- Plan a route that achieves the greatest number of choc-ice sales.
- Plan a route that goes to only three locations. How many ice creams do they sell?
- Plan a route that will produce sales of fewer than 10 ice creams. Is it possible?

Support

Suggest that children:

- Plan a route without going to the lake. How many ice creams do they sell?
- Visit the park, then the school, then the cinema, with breaks between the visits. How many ice creams do they sell?
- Plan a route and find out which type of ice cream sells the most.

Extend

Suggest that children:

- Plan a route which sells between 30 and 40 ice creams.
- Find out which locations are best for selling ice pops.
- Find the greatest number of ice creams that can be sold between 10 am and 4 pm.

Cross-curricular links

Social Studies – People, Place and Environment – link to routes and maps, designing routes to get from classroom to school hall etc, comparing fast routes and slower ones.

Literacy – design advertising posters for the ice cream van for each location visited.