

Train Timetables

Developed by Peter McClean from Morton Trentside School, Gainsborough in Lincolnshire. He has an excellent blog with lots of primary maths resources involving clues and logic puzzles:

<<http://primarymaths.wordpress.com>>.

Webaddress: <http://www.collaborativelearning.org/traintimetables.pdf>

Last updated 14th December 2012



Gainsborough Station 1849



Gainsborough Station 2012

COLLABORATIVE LEARNING PROJECT

Project Director: Stuart Scott

We support a network of teaching professionals to develop and disseminate accessible talk-for-learning activities in all subject areas and for all ages.

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BRIEF SUMMARY OF BASIC PRINCIPLES BEHIND OUR TEACHING ACTIVITIES:

The project is a teacher network, and a non-profit making educational trust. Our main aim is to develop and disseminate classroom tested examples of effective group strategies that promote talk across all phases and subjects. We hope they will inspire you to develop and use similar strategies in other topics and curriculum areas. We want to encourage you to change them and adapt them to your classroom and students. We run teacher workshops, swapshops and conferences throughout the European Union. The project posts online many activities in all subject areas. An online newsletter is also updated regularly.

*These activities are influenced by current thinking about the role of language in learning. They are designed to help children learn through talk and active learning in small groups. They work best in non selective classes where children in need of language or learning support are integrated. They are well suited for the development of speaking and listening . They provide teachers opportunities for assessment of speaking and listening.

*They support differentiation by placing a high value on what children can offer to each other on a particular topic, and also give children the chance to respect each other's views and formulate shared opinions which they can disseminate to peers. By helping them to take ideas and abstract concepts, discuss, paraphrase and move them about physically, they help to develop thinking skills.

*They give children the opportunity to participate in their own words and language in their own time without pressure. Many activities can be tried out in pupils' first languages and afterwards in English. A growing number of activities are available in more than one language, not translated, but mixed, so that you may need more than one language to complete the activity.

*They encourage study skills in context, and should therefore be used with a range of appropriate information books which are preferably within reach in the classroom.

*They are generally adaptable over a wide age range because children can bring their own knowledge to an activity and refer to books at an appropriate level. The activities work like catalysts.

*All project activities were planned and developed by teachers working together, and the main reason they are disseminated is to encourage teachers to work more effectively with each other inside and outside the classroom. They have made it possible for mainstream and language and learning support teachers to share an equal role in curriculum delivery. They should be adapted to local conditions. In order to help us keep pace with curriculum changes, please send any new or revised activities back to the project, so that we can add them to our lists of materials.

Train Timetables Puzzle

Audra, Matthew, Taz, Anya and Robbie are five friends who live in Gainsborough. They all decide to visit their grandparents who live in York, Manchester, Nottingham, London or Liverpool. They travel by train, but the trains depart at different times: 09:37, 09:48, 10:48, 12:38 or 12:49. None of the trains travel directly to the destination, so the friends have to change trains in either Lincoln, Sheffield, Doncaster or Retford. The trains arrive in their final destinations at different times, either 11:33, 11:59, 13:02, 14:30 or 16:31. Can you work out where each friend is going, what time they depart from Gainsborough and arrive in their destinations and where they change?

Clues 1

- Audra's train changes in Retford.
- The boy who arrives at his destination at 2:30pm has to change trains in Lincoln.
- The train to London Kings Cross changes in Doncaster and arrives in London before midday.
- Robbie sets off to Nottingham in the afternoon.
- Anya's journey takes exactly 3 hours and 42 minutes.



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Clues 2

- Anya is the last person to arrive at her destination.
- The friend going to York is the first to arrive.
- Matthew and Audra both need to leave Gainsborough before 10 am.
- Taz catches his train from Gainsborough later than Matthew but earlier than Robbie.
- The train to Liverpool Lime Street departs exactly 3 hours and 1 minute after the train to York.



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Clues 3

- The London train sets off at 9:37am
- Taz arrives in Manchester Piccadilly 3 hours and 29 minutes before Anya arrives at her destination.
- The friends who visiting Manchester and Liverpool both change in Sheffield.
- Both Robbie and Audra `s journeys take less than 2 hours.



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Teacher notes:

We have tried out this activity with just the clue cards and a blank matrix. To make it easier you can fill in part of the matrix.

You might also want to cut up the answers matrix for pupils to reassemble.

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Friend	Destination	Departure	Arrival	Change at
Audra	York	09.48	11.33	Retford
Matthew	London Kings Cross	09.37	11.59	Doncaster
Taz	Manchester Piccadilly	10.48	13.02	Sheffield
Anya	Liverpool Lime Street	12.49	16.31	Sheffield
Robbie	Nottingham	12.38	14.30	Lincoln

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