

Matching Decimals, Scales and Pictures

Overview

This activity is designed for students to review and/or expand their understanding of decimal place value through matching activities designed for pairs or small groups.

- Set 1 compares decimal numbers to fractions and diagrammatic representations.
- Set 2 requires learners to choose correct readings on decimal measurement scales.

These matching tasks are ideal as introductory activities, since they allow you to observe students' existing skills as a starting point for teaching whilst encouraging students to cooperate and discuss their numeracy understanding. They are also useful as revision tasks.

The activities 'Exploring Decimals and Tenths' and 2', 'Exploring Decimals on Measuring Scales' and 'Exploring Decimals and Round Offths' provide detailed learning material to support this activity.

Skills and Knowledge

- Decimal notation
- Decimal place value
- Equivalence of decimals, fractions and mixed numbers
- Interpreting decimal scales

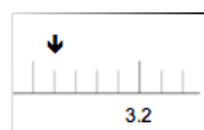
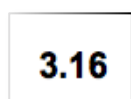
Preparation and Materials

- Photocopy Activity Sheets 1 and 2 onto card (1 per pair or group of 4).
 - cards can be laminated for greater durability but this is optional
- Place each set into a labelled envelope.
- Cut some blank pieces of card or paper for the extension activity

Suggested Procedure

Arrange students into small groups or pairs.

Give each group an envelope containing one set of cards.



Introducing the activity

Explain:

- *First tip the cards onto the table and spread them out so all members of the group can see and reach them.*
- *Then together sort the cards into pairs which have the same meaning.*
- *Talk to each other and explain as you decide where to put the cards.*
- *It is important that everyone in the group knows why you put things together*
- *Some of the cards might be 'loners' - that is they do not belong in any of the pairs.*

Extension for quicker groups

If any groups finish before others, give them some blank slips of paper and ask them to make a pair to go with the unmatched cards.

Note: Set 2 contains an unmarked measuring scale for students to mark their own numbers and arrows. [You may need to make many spare copies of this for future use or laminate it so it can be re-used.]

Debriefing the activity

Compare the solutions of the different groups.

If it was not possible to observe the progress of all groups, then on completion of the activity discuss results and ask questions such as:

- *Did you find these easy or difficult?*
- *Which were the hardest?*
- *Why do you think they were?*
- *Do you think you would like more practice?*

The teaching activities 'Exploring Decimals and Tenths 1 and 2' and 'Exploring Decimals on Measuring Scales' and 'Exploring Decimals and Hundredths' contain step by step exercises and Practice Sheets to consolidate the skills and knowledge involved in these matching activities.

Variation

Some teachers and students prefer not to have 'unmatched' cards in the initial set so that they see a neat matching up of all the card pairs at the end.

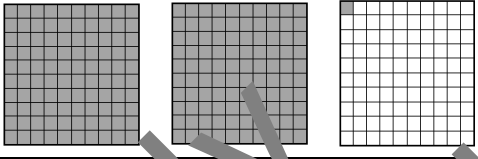
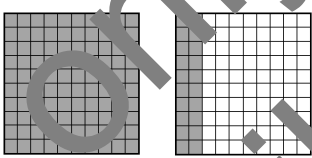
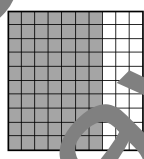
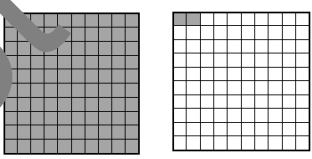
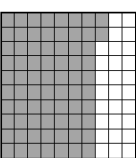
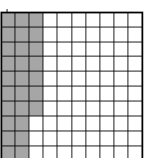
This is less challenging, but perhaps more satisfying for students. In this case the 'unmatched' cards can be separated out initially and distributed as the extension afterwards.



Matching decimals, scales and pictures Activity Sheet 1

Recommended as a pair or small group activity.

✂ Copy onto card and cut.

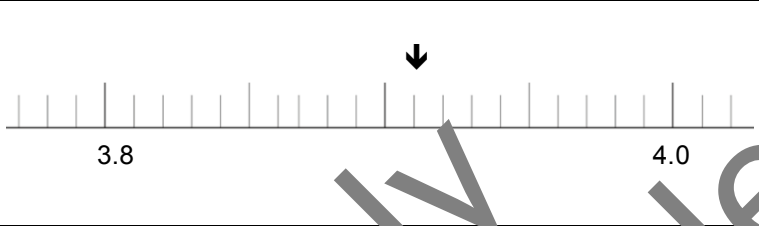
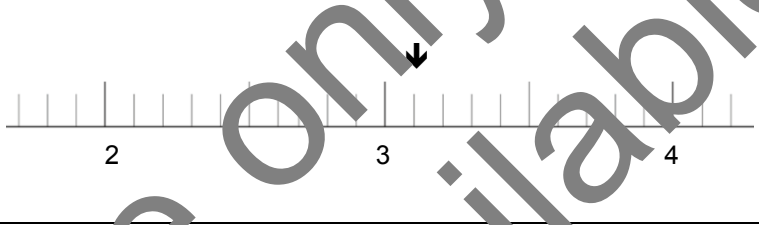
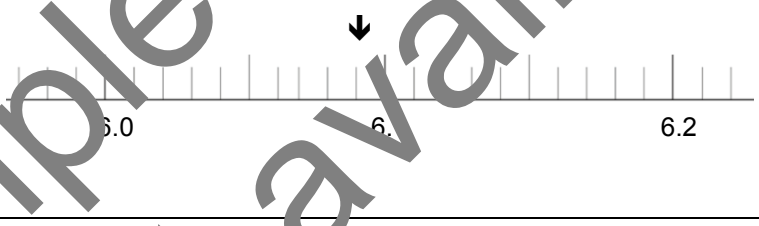
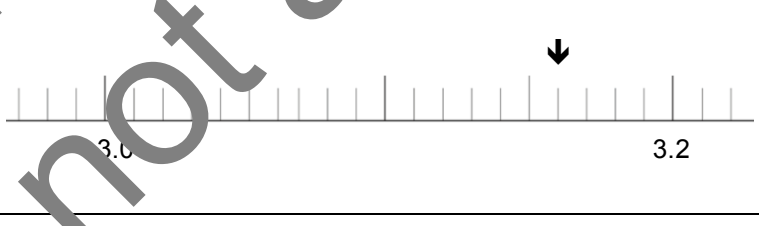
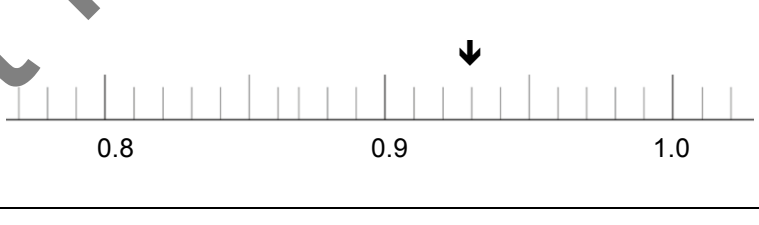
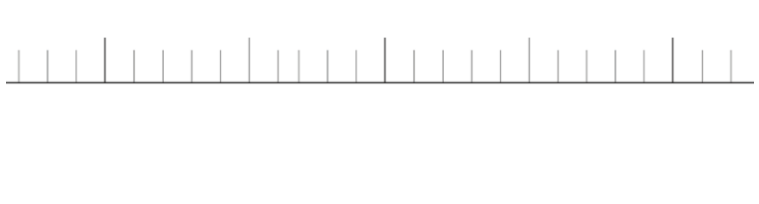
| | | |
|-----------------|------------------|--|
| $2\frac{1}{10}$ | 0.7 |  |
| 2.01 | 0.17 |  |
| 0.72 | 7.2 |  |
| 1.02 | $\frac{27}{100}$ |  |
| $7\frac{2}{10}$ | $2\frac{7}{100}$ |  |
| 2.07 | 1.2 |  |



Matching decimals, scales and pictures Activity Sheet 2

Recommended as a pair or small group activity

Photocopy and cut

| | | |
|-----------------|-------------------|--|
| $3\frac{1}{10}$ | 6.03 |  |
| 3.91 | 0.36 |  |
| 0.93 | 6.3 |  |
| 6.09 | $\frac{36}{100}$ |  |
| $6\frac{3}{10}$ | $3\frac{99}{100}$ |  |
| 3.16 | $6\frac{3}{100}$ |  |

