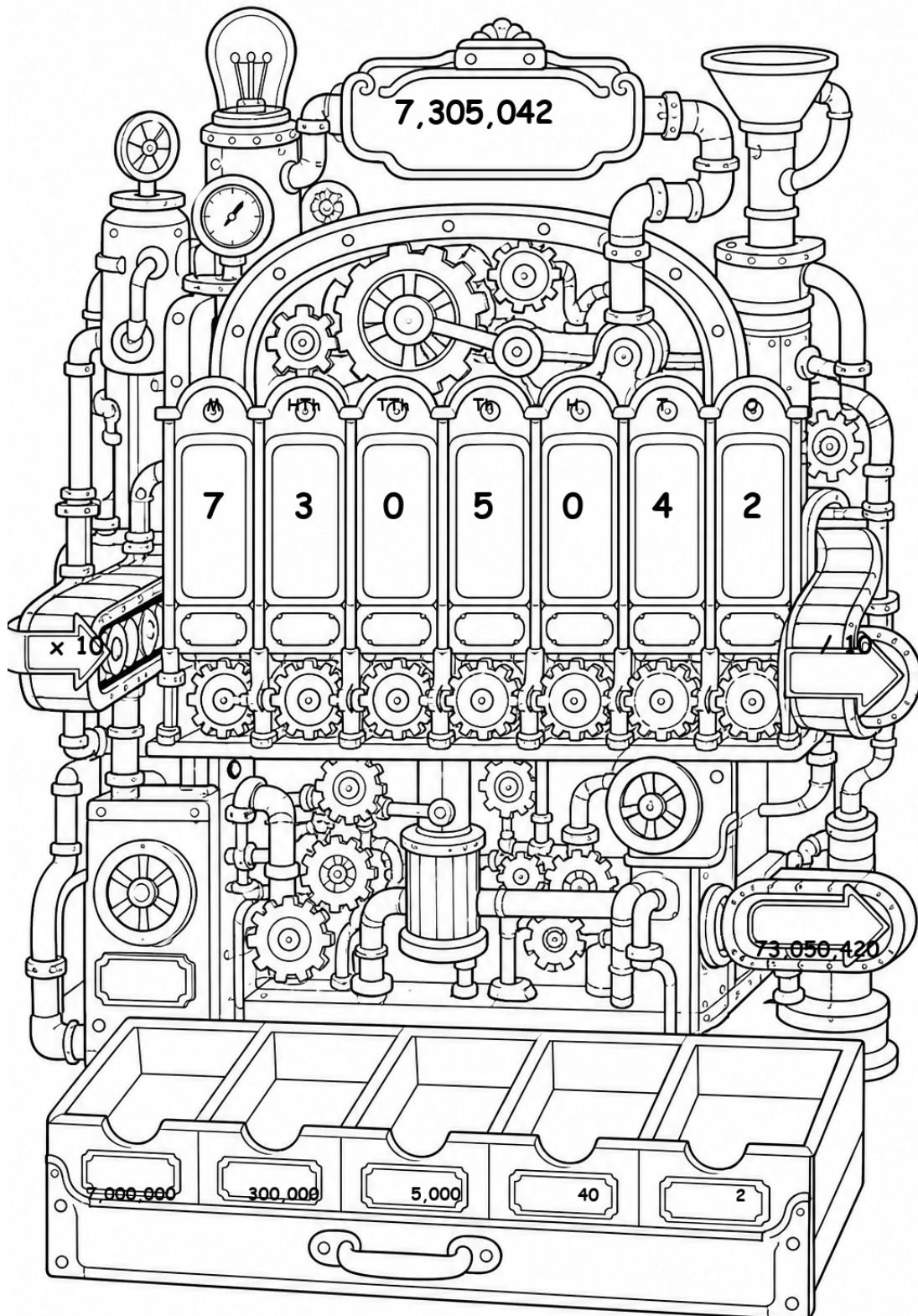


Inside 7,305,042: Place-Value Machine

KS2 / Year 6 - Mathematics

Colour the place-value machine and explain how each digit contributes to 7,305,042. Trace what happens when the number is multiplied or divided by 10.



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Parent & Teacher Guidance

Curriculum focus

Topic: Place value. Develop accurate observation, subject vocabulary and evidence-based explanation. Mapped scope: Year 6 Mathematics number and place value: read, write, order and compare numbers up to 10,000,000 and determine the value of each digit..

Before you begin

Review the picture together and ask the learner what they already notice about Place value. Read the activity aloud, explain unfamiliar vocabulary, and agree which details need special attention.

Solo activity

The learner can complete the colouring independently, then use the finished page to explain three details linked to Place value. Encourage accurate colour choices where they carry meaning, but allow creative choices elsewhere.

Group activity

Give pairs or small groups different areas to inspect. Ask them to agree on evidence before colouring, compare their findings, and present one curriculum fact to the class. Finish with a whole-group check against the guidance below.

Questions to guide discussion

What evidence can you see? Which feature is most important and why? How does one part connect to another? What new fact about Place value can you explain using the picture?

Answers and checking

No fixed answer is required. Accept well-supported observations that match the curriculum focus and visible evidence.

Learning record and next steps

☐ Completed the colouring

☐ Explained key vocabulary

☐ Completed the activity

☐ Used visible evidence

Evidence noticed / vocabulary used

Next step:
