A little bit of number sense every day goes a long way.

Number sense routines help students build their understanding of place value, visualization, estimating, composing and decomposing numbers, part/whole relationships, and operations. These quick routines provide daily experiences to develop students’ application of number sense in a variety of situations and contexts.

Based on the principles of Jessica Shumway’s *Number Sense Routines* professional books for Grades K-3 and 3-5, and delivered by education consultants specifically trained by the author, the *Number Sense Routines* Professional Development guides teachers as they build a community of practice to improve students’ number sense learning through quick, 5-15-minute math discussions every day. *Number Sense Routines* fit within any curriculum, enhance any core instruction, and meet key standards for mathematics.

**PROGRAM OVERVIEW**

**Outcomes**

TEACHERS WILL BE ABLE TO:

- Use number sense routines consistently and frequently
- Lead mathematical conversations with confidence
- Plan number sense routines in response to students’ learning needs
- Understand and apply deeper content knowledge for mathematics teaching

**Components**

UP TO 30 TEACHERS WILL RECEIVE:

- Two day-long on-site visits
- Four live 90-minute video conferences
- *Number Sense Routines* book with corresponding book study guides
- One-year license to Jessica Shumway’s video, *Go Figure!: Number Sense Routines That Build Mathematical Understanding*
PROGRAM COMPONENTS

✓ Four Live Video Conferences
The Number Sense Routine program begins with an interactive live video conference to introduce the concept of number sense along with strategies for fitting Number Sense Routines into daily lessons. Each of the 90-minute video sessions builds on the content covered in previous modules through whole group, small group, or pair activities.
  ▪ Session 1: Introduction to Number Sense Routines
  ▪ Session 2: Responsive Routines
  ▪ Session 3: Visual Routines
  ▪ Session 4: Sharing and Celebrating Successes

✓ Two On-Site Visits (for up to 30 K-5 teachers)
ON-SITE VISIT 1: Digging Into Number Sense Routines
This is a day-long, interactive, in-person workshop in which participants will more deeply understand the content of Number Sense Routines.

ON-SITE VISIT 2: Number Sense Routines Classroom Visits
This day-long, in-person visit focuses on number sense “in action” where the consultant will move across classrooms to help teachers refine classroom practice through model lessons and peer observations.

✓ 1-Year Video License
The Number Sense Routines program includes a 1-year video license to Jessica Shumway’s Go Figure! Number Sense Routines That Build Mathematical Understanding for participating teachers.

✓ Book Study Guide
A Number Sense Routines book (for Grades K-3 or 3-5) and a corresponding book study guide is provided to each participant. Schools or districts are encouraged to assign an on-site math leader to facilitate the study.*

*The book study can be facilitated by the consultant who conducts your on-site and video conferences for an additional fee.
PROGRAM IMPLEMENTATION

MODULE 1
- Live video conference: Introduction
- District/School Facilitated Book Study*

MODULE 2
- On-site visit: Digging into Number Sense Routines
- District/School Facilitated Book Study*

MODULE 3
- Live video conference: Visual Routines
- District/School Facilitated Book Study*

MODULE 4
- On-site visit: Number Sense Routines in the Classroom
- District/School Facilitated Book Study*

MODULE 5
- Live video conference: Responsive Routines
- District/School Facilitated Book Study*

MODULE 6
- Live video conference: Reflections
- District/School Facilitated Book Study*

*The book study can be facilitated by the consultant who conducts your on-site and video conferences for an additional fee.

GROUNDED IN RESEARCH

Number Sense Routines Professional Development Support Key Research Principles

- Number sense is a powerful predictor of later mathematical outcomes (Jordan et al., 2009; Jordan et al., 2010).

- A community of practice developed through teacher collaboration and school leadership support leads to sustained and expanded implementation over time. (McLaughlin, Milbrey, & Talbert, 2006).

- Initial intensive workshops followed by classroom application and additional coaching sessions help extend and reinforce learning (Darling-Hammond et. al., 2017).

For more information, contact pd@stenhouse.com