



Really Good Stuff Instructional Guide

STEM Meets 100 – Four-Station Activity Kit

This Really Good Stuff® product includes:

- 4 Station Cards
- 300 Assorted Pom-Poms
- 500 Assorted Pipe Cleaners
- 500 Bug Foam Shapes
- 600 Buttons
- 24 STEM Meets 100 Journals
- 8 Label Cards
- Storage Tub
- This Really Good Stuff® Instructional Guide

Congratulations on your purchase of this Really Good Stuff® STEM Meets 100 – Four-Station Activity Kit—a hands-on kit to enhance your 100th day celebration, engage students and parents on STEM night, or reinforce counting to 100 by ones, fives, and tens any day of the year.

Meeting the Standards

The Really Good Stuff® **STEM Meets 100 – Four-Station Activity Kit** aligns with the Common Core State Mathematics Standards and the Next Generation Science Standards below. For alignment with other state standards, please refer to our website's Standards Match.

Common Core State Mathematics Standards Know number names and count sequence.

- K.CC.A.1 Count to 100 by ones and by tens.
- **K.CC.A.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- **K.CC.A.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Count to tell the number of objects.

- **K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
- **K.CC.B.4a** When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
- K.CC.B.4b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
- **K.CC.B.4c** Understand that each successive number name refers to a quantity that is one larger.
- K.CC.B.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Use place value understanding and properties of operations to add and subtract.

- NBT.1.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
- NBT.1.5 Given a two-digit number, mentally find 10 more or less than the number, without having to count; explain the reasoning used.
- NBT.1.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties or operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning
- NBT.2.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Next Generation Science Standards K-2-ETS1 Engineering Design

Students who demonstrate understanding can:

- K-2-ET9I-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- **K-2-ETSI-2** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- **K-2-ET51-3** Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

Introducing the STEM Meets 100 – Four-Station Activity Kit

This interactive kit provides everything you need to set up four STEM Meets 100 stations in your classroom, media center, etc., allowing you to divide your students (and parents) into cooperative groups to rotate through hands-on activities. The kit includes 24 STEM Meets 100 Journals for your students to record their information and data for each station. Before displaying the STEM Meets 100 – Four-Station Activity Kit, make copies of this Really Good Stuff® Instructional Guide, and file the pages for future use. Or, download another copy of it from our website at www.reallygoodstuff.com.

All instructional guides can be found online

Really Good Stuff Instructional Guide STEM Meets 100 – Four-Station Activity Kit

Each Station Card features a counting to 100 activity on the front and STEM-based for Science, Math, Technology, and Engineering activities on the back. Depending on your students' level, you (and classroom aides or volunteers) may need to lead the 3. Place an assortment of Pom-Poms in a basket activities due to text complexity and task difficulty. Store all of the materials in the Storage Box once activities are completed.

Setting Up the STEM Meets 100 - Four-Station Activity Kit Stations

This Kit includes enough materials to divide your class into four working groups of up to six students each with plenty of extra Pom-Poms, Foam Bugs, Pipe Cleaners, and Buttons for more than one use. The groups rotate from Station to Station, allowing them to compare and contrast their activities and models. Decide how you wish your students to rotate through the Stations and be prepared to share it with students before beginning the STEM Meets 100 Activities. Prepare the stations as listed below:

- Select the Station Cards from the Storage Box and fold them into stand-up tents.
- Place the Station Card tents in the center of the tables with the instruction sides facing front.
- Supply each station with the appropriate materials for each station as listed below.
- Right before you are ready to start the activity, distribute a STEM Meets 100 Journal to each student and have them label the Journal with their name. Remind them to bring a pencil and their Journal along on their STEM Meets 100 iourney.
- · Divide your class into the desired groups and share your STEM Meets 100 procedure with your students.

The Filling Station - A place to have fun with counting to 100, subtraction, measurement, estimating, and shapes!

1. Collect containers such as a butter container. an oatmeal box, a gift box with a lid, a plastic food container, etc., and place them around the classroom for students to select.

- 2. Place a digital camera or a tablet on the table for students to take pictures of the activity. Provide a box of crayons or colored markers to use in the Journals.
- or container near the Station Card. Be sure to include more than 100 so the students are challenged with counting out the amount they need for the activity.
- 4. Instruct students to read the front of the Station Card to start the activity. Remind them to work together as a group to complete the activities together.
- 5. Have students record their information in their Journals.
- 6. Remind students to return the materials to the way they found them, and be ready to move on to the next Station.

Bug-Out Sort - A place to have fun with counting to 100, adding, categorizing, estimating, and sorting by attributes!

- 1. Provide the table with measuring tools such as a ruler, a yardstick, or a tape measure.
- 2. Place a digital camera or a tablet on the table for students to take pictures of the activity. Provide a box of crayons or colored markers to use in the Journals.
- 3. Place an assortment of Foam Bugs in a basket or container near the Station Card. Be sure to include more than 100 so the students are challenged with counting out the amount they need for the activity.
- 4. Instruct students to read the front of the Station Card to start the activity. Remind them to work together as a group to complete the activities together.
- 5. Have students record their information in their Journals.
- 6. Remind students to return the materials to the way they found them, and be ready to move on to the next Station.



Button-It Up - A place to have fun with counting to 100, predicting, and sinking & floating!

- 1. Provide the table with a tub half full of water and some paper towels to dry off hands and Buttons.
- 2. Provide a box of crayons or colored markers to use in the Journals.
- 3. Place an assortment of Buttons in a basket or container near the Station Card. Be sure to include more than 100 so the students are challenged with counting out the amount they need for the activity.
- 4. Instruct students to read the front of the Station Card to start the activity. Remind them to work together as a group to complete the activities together.
- 5. Have students record their information in their Journals.
- 6. Remind students to return the materials to the way they found them, and be ready to move on to the next Station.

Build-It Buddies - A place to have fun with counting to 100, building, constructing, and comparing.

- 1. Provide the table with measuring tools such as a ruler, a yardstick, or a tape measure.
- 2. Place a digital camera or a tablet on the table for students to take pictures of the activity. Provide a box of crayons or colored markers to use in the Journals.
- 3. Place an assortment of Pipe Cleaners in a basket or container near the Station Card. Be sure to include more than 200 so the students are challenged with counting out the amount they need for the activities.
- 4. Instruct students to read the front of the Station Card to start the activity. Remind them to work together as a group to complete the activities together.
- 5. Have students record their information in their Journals.
- 6. Remind students to return the materials to the way they found them, and be ready to move on to the next Station.

Group Sharing and Comparing

After all of the groups have completed their rotation through the Stations, gather the groups together to share the information they collected in their Journals, the photos that were taken, the pictures that were drawn, and the information they learned. Choose volunteers to share their favorite activities and drawings from the last page of their Journals.

STEM Meets 100 Certificate

Make copies of the STEM Meets 100 Certificate Reproducible and fill in a certificate for each participant. At the end of the Group Sharing and Comparing Activity, award each student with a certificate to color and take home.