

White Rose Maths Essentials-
Early Years Kit 1 EL47703



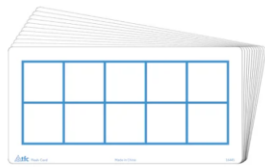
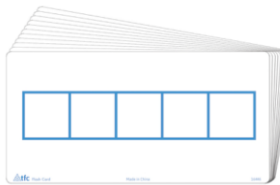
High-quality resources.
The essential tools to support the
White Rose mastery-based
scheme of learning.

White Rose
MATHS

Here are some activities for
using the resources to help
children learn in fun,
hands-on practical ways.



1. Five frames and ten frames



- Prompt children to represent up to 5 objects on a five frame. Support them to recognise how many objects there are each time, for example if there is 1 empty space, there are 4 objects. If the frame is full, there are 5 objects.
- Once children are confident with representing numbers on a five frame, then a ten frame can be introduced. Support them to understand that we have 5 if the top row of the ten frame is full.
- Encourage children to fill the ten frame in the five-wise pattern from left to right, so they can see the '5 and a bit' structure. Encourage children to subitise the 5 and start to recognise the pattern of 6, 7, 8, 9 and 10 on the ten frame.

1 less

Adult-led learning



Sing and act out the rhyme *Five Currant Buns* together as a class.



Pick 5 children to come and buy the buns. They give a 1 pence coin to the baker as they take the bun.



Stop at regular intervals to encourage children to notice that, as a bun is taken away, there is 1 less each time.

Model by using a five frame and counters. Start with 5 counters and remove 1 each time a bun is taken.



Model the rhyme *Five Little Men in a Flying Saucer* with children. Provide props for them to use to help them notice the '1 less' pattern.

Support children to build towers or use a five frame so they can see the amount decreasing.



Encourage them to independently act out the rhyme.



After reading books such as *Stella to Earth!* by Simon Puttock and Philip Hopman, prompt children to pretend to be rockets and count backwards.

Encourage children to use their fingers as they count back to support them.

"5, 4, 3, 2, 1, blast off!"



With children, count 4 items into a bag.

Ask them to confirm how many there are in the bag.

Put 1 cube in or take 1 out.

How many are in the bag now?

Once children are confident in predicting 1 more and 1 less, this can be extended to 2 more or 2 less.



Encourage children to use their fingers or five frames to represent the hidden objects.

Make arrangements of 10

Adult-led learning



Show children different arrangements of 10 objects. Prompt them to discuss what they notice about how the objects have been arranged.



Provide children with loose parts and encourage them to find different ways to arrange 10 items.

Model representing numbers to 10 on a ten frame in different ways and talk about what the children notice.



What does each arrangement tell us about that number?



Read the book *Ten Black Dots* by Donald Crews and prompt children to talk about what they notice about the different dot arrangements.



Encourage children to make their own black dot pictures.



Encourage children to play a barrier game in pairs. One child makes an arrangement of 10 objects, such as pom-poms, that their partner cannot see.

Their partner then has to ask questions about how they have made the arrangement, such as whether the objects are in rows, and tries to make the same arrangement. Remove the barrier and encourage them to talk about what is the same and what is different about the arrangements.



2. Translucent counters



- Translucent counters are a brilliant resource to use when playing track games. As the counters are see through, it means that children can see what number they have landed on.
- To take track games further, encourage children to count on as they move up the number track, rather than just counting the number of jumps they need to make.
- Translucent counters are also a great resource for making patterns with on a light box.

Continue patterns beyond 10 (10–13)

Adult-led learning



Play the game 'What's the time, Mr Wolf?' Pick one child to be the wolf and ask them to stand at one end of the outdoor area, facing the other way. All the other children stand at the other end. Children ask the wolf, "What's the time, Mr Wolf?" The wolf says a time, for example, "It is 11 o'clock."

Support children to count and take 11 steps towards the wolf. Repeat for other numbers up to 12



Encourage children to stand in a circle. Choose a child to start counting aloud around the circle from zero. Each child in turn says the next number.

The child who says the number 13 sits down in the middle of the circle.

Continue counting from 0 to 13 around the circle until one person is left standing. This person is the winner.



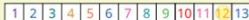
Provide children with crates numbered 1 to 5 and a set of balls. Prompt children to aim and throw the balls at the crates. The crate the ball lands in is the number of points they score. Support children to make marks or use a tally to record their scores.



The first to score exactly 13 is the winner.



Provide children with a number track from 1 to 13, a dice labelled 1 to 3 and counters.



Encourage them to take it in turns to roll the dice and count on the corresponding number of spaces on the number track.

What number do you need to roll next to get to 13?

3. Double sided counters



- Double-sided counters are a brilliant resource for a range of maths activities.
- They are particularly good for looking at composition where you can play the double-sided counter drop game as can be seen below. Children can see the two parts of the number with the red and yellow sides of the counters.
- Double sided counters are also great for using on a ten frame when looking at addition and subtraction.

Composition of 1, 2 and 3

Adult-led learning



Set up a small world scene with 2 fields or pens.



Ask children how many animals could go in each field.

Can they find different ways to do this?

This could also be linked to the story *The Three Billy Goats Gruff*.

Provide a set of dominoes.

Ask children to find all the dominoes with 1, 2 or 3 spots.

Are they all the same?

How many dominoes can they find with 1, 2 or 3 spots on one side?



Ask children to count out 3 double-sided counters, shake them in their hand and drop them down.

How many are red? How many are yellow?

Can they get all red or all yellow?



With children, count out 1, 2 or 3 items and hide them.

Ask children to use their fingers to show how many are hidden.



Ask children to watch as you add 1 more item to the hidden group.

How many are hidden now? What if you take one out?

How many did I add?

Adult-led learning



Place a number of marbles in a jar and represent this number on a ten frame with red counters. Use a class puppet to add more marbles to the jar without children seeing. Count how many marbles are in the jar now. Support children to find how many were added by placing yellow counters on the ten frame until you reach the total number.



How many yellow counters did you add? How many marbles must the puppet have added?

In pairs, one child selects a numeral card and collects that number of cubes. The other child selects another numeral card and, without showing their partner, they add that number of cubes to the pile.



Their partner must work out what number is on the hidden card by finding how many cubes were added.



After reading stories such as *Mr Gumpy's Outing* by John Burningham, encourage children to play the characters from the story. Have some children in the boat and ask the other children to shut their eyes. Secretly tap some of these, who join the boat without the others seeing. Then ask everyone to open their eyes. How many children are in the boat now? How many were added?



In the context of the song *Ten Green Bottles*, tell children a 'first, then, now' story where the first part is missing. For example, "We don't know how many bottles were on the wall, but then 3 more were added and now there are 10 altogether."



Encourage children to use a ten frame and counters to work out how many bottles there were at the start.

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White Rose MATHS

Concrete resources to bring children's maths learning to life in engaging and meaningful contexts.



**We hope you enjoy using
the White Rose Maths
Essential kit.**