




Exploring Factors and Multiples

Check out the "Parent Quick Smarts" video for this unit by using this link: <https://goo.gl/G9RcD1>

<p style="text-align: center;">Overarching Student Learning Goals</p> <p style="text-align: center;">In this unit, your child will work to build an understanding of the following:</p>	<p style="text-align: center;">Resources/Tasks to support your child at home.</p>																																																		
<p>Identify Multiples of Given Numbers.</p> <p>Students explore multiples using skip counting patterns on a hundreds chart.</p> <p><i>Example: Multiples of 5</i></p> <table border="1"> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> <tr><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td><td>39</td><td>40</td></tr> <tr><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>47</td><td>48</td><td>49</td><td>50</td></tr> <tr><td>51</td><td>52</td><td>53</td><td>54</td><td>55</td><td>56</td><td>57</td><td>58</td><td>59</td><td>60</td></tr> <tr><td>61</td><td>62</td><td>63</td><td>64</td><td>65</td><td>66</td><td>67</td><td>68</td><td>69</td><td>70</td></tr> </table> <p style="text-align: center;">Students relate multiples to the factor of a number.</p> <p style="text-align: center;"><i>Example: Multiples of 5</i></p> <p style="text-align: center;">$1 \times 5 = 5$</p> <p style="text-align: center;">$2 \times 5 = 10$</p> <p style="text-align: center;">$3 \times 5 = 15$</p> <p style="text-align: center;">$4 \times 5 = 20$</p> <p style="text-align: center;">$5 \times 5 = 25$</p> <p style="text-align: center;">So multiples of 5 include:</p> <p style="text-align: center;">5, 10, 15, 20, 25</p>	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	<ul style="list-style-type: none"> Choose a number from 1-10 and have your child skip count by that given number to determine the multiples. Could use a 120s chart (https://goo.gl/NngTgc) or a number line (https://goo.gl/G7EHV8) to practice. Then have your child record the multiplication equations and a list of those multiples. Khan Academy: Factors and Multiples https://goo.gl/1xbcqqa
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<p>Determine and describe factors of numbers within 100.</p> <p>Factors are the numbers that are multiplied to get to a product.</p> <p style="text-align: center;"><i>Factor x Factor = Product</i></p> <p>Students extend their understanding of multiplication and division facts to determine factors of given numbers. Array area models are used to help determine factors of a given number within 100.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">  <p>1×12</p> </div> <div style="border: 1px solid black; padding: 5px;">  <p>2×6</p> </div> <div style="border: 1px solid black; padding: 5px;">  <p>3×4</p> </div> </div> <p style="text-align: center;"><i>The factors of 12 are: 1, 2, 3, 4, 6, 12</i></p>	<ul style="list-style-type: none"> Use a deck of cards to create a 2 digit number. Have your child model all the possible arrays for that given number using any tool: cereal, pennies, etc. Have them record the factors as a list. Khan Academy: Finding Factors of a Number https://goo.gl/EvMEjd 																																																		

For more information on the learning goals and your child's progress, please contact your child's teacher.

Identify and describe why a number is prime or composite.

Students connect their understanding of factors to determine if a given number is prime or composite. This can be done by listing the factors of the number or creating array area models to determine the factors before determining if the number is prime or composite.

Prime

When a number only has 2 factors: 1 and itself.



The number 7 is prime because it only has 2 factors as shown above: 1 and 7.

Composite

When a number has more than 2 factors.



The number 6 is composite because it has more than 2 factors as shown above: 1, 2, 3, 6.

- Use a deck of card or roll a dice to create a 2 digit number. Have your child create arrays and list the factors of the given number. Then determine if the number is prime or composite based on the number of factors.
- Khan Academy: Recognizing Prime and Composite <https://goo.gl/YJmbkU>