Dynamic Instructional Design (DID)

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Part 1: Getting to know the learner

The tools I would use to get to know my 6th Grade Mathematics students and why are;

Multiple Intelligence/Learning Style Survey (online); This would be used to see what type of learns I have in my classroom. Also, with this information I will be able to better differentiate my instruction to meet the needs of all my students.

Website: https://testyourself.psychtests.com/bin/transfer

Take Flight, Touchdown Game: The game works by me (the teacher) saying take flight "if you have a pet dog at home" those students who have a pet dog at home would stand up, then I would say touchdown which means sit down. This would continue with me saying different phrases. I could easily get to know my students on a personal level. It is imperative for educators to make connections with students.

PowerSchool Database: Each teacher is given credentials to log in and see their classes and student's information. Students portfolios are housed here since their kindergarten year. I can see historical grades dating back. PowerSchool also allows me to see if my students have free/reduce lunch, the location in which they live (poverty area or not), and see where/when (spring, fall, winter) students tend to struggle. All this information helps me to better serve my students knowing more about them and their families (poverty area).

Pre-Assessment: Students would be given a pre-assessment (which is the actual test) to see what they know. This will allow me to see if I can move swiftly or if I need to slow it down. Some students may have prior knowledge of the concept and some may not. This pre-assessment will let me know.

Part 2: Performance Objective and Lesson

I chose the technology integration lesson plan because it gives me the opportunity to demonstrate how technology will be used in my lesson to enhance student's achievement.

Fractions, Decimals, and Percents

A technology integration lesson plan for 6th Grade Mathematics

Mr. Hamilton

Lesson Summary

Investigate and translate among multiple representations of rational numbers (fractions, decimal numbers, percentages) using different technology/multimedia tools. Fractions should be limited to those with denominators of 2, 3, 4, 5, 8, 10, and 100.

Objectives

- Students will be able to translate between:
  - decimals and percents.
  - decimals and fractions.
  - fractions and percents.
- Students will be able to explain how a fraction with a denominator of 3 creates a repeating decimal.
- Students will be able to recognize ⅛ as half of ¼ to assist with conversions for all representations.
- Students will be able to demonstrate their understanding of converting between fractions, decimals, and percents using technological tools

Content Standard

6.NS.9

Duration

Lesson will take approximately one class period (90 minutes)

Lesson Type

Students are working individually but can ask classmates questions

Technology Integration

Kahoot

NearPod

Khan Academy

Google Classroom

Google Sheets

Instructional Procedures

1. Bell work: Kahoot (pre assessment) 5 questions to see who knows how to convert between fraction, decimal, and percent
2. Instruction: Students will go to www.nearpod.com/student and type in the code that is listed on the board.
3. Teacher will use his Chromebook while walking around the room going over notes/examples/and slides on Nearpod presentation. This presentation will

teach students how to convert and practice converting between fractions, decimal, and percents. Students will be paying attention on their own chrome books. There are a few draw it examples on the Nearpod presentation where students will show their work and submit to the teacher on Nearpod. As the teacher walks around, he is ensuring all students are paying attention and answering any questions.

4. Students will log into Khan academy using their google credentials. They will click on the teachers class name and complete assignments titled "converting decimals to percents, converting percent to decimals, converting percent to fractions, and converting fraction to percents" Each assignment has 4 questions and can be taken as many times until the students reaches their desired grade. Each retake will yield different questions. These grades will go in the grade book as classwork assignments.
5. When students have completed their Khan Academy assignment, they may move on to their technology integrated assignment. Hand out the packet. Students will complete the packet with pencil then translate it into the assignment labeled F-D-P in our googleclassroom.
    a. **Directions printed on first page of sheet**: For this tech assignment you will be collecting data and representing the data in the form of a fraction, decimal, and percent. You will then shade in a 100 square grid corresponding to each category's percent. For this assignment, you will complete the information for one survey. The question is assigned. The first question that students must survey others on is "What is your favorite kind of ice cream". Students will survey 20 people and put this information/results in a chart along with the ice cream type (at least 6 choices must be in the table). Then students will translate each ice cream total into a fraction, decimal, and percent. (chart is inside the packet). Next, students will see a 100 square grid where they must make a key with each color pertaining to a certain ice cream that is in their table. Students will shade the percentage of each ice cream on the table.
6. After completing all steps in the first survey students will login to google classroom and click F-D-P assignment. This will open up google sheets where students have to input the exact information that they filled in the charts on the paper (ie. Students will need to fill in tables and use paint fill to fill in the 100 square grid on google sheets). When done students will click the turn in button on google classroom and turn in the hard copy to the teacher.
7. The teacher will be facilitating while students are working.

Evaluation

Students will have submitted their assignments on google classroom. I will retrieve these assignments and ensure that students have calculated and converted correctly. Their grade will reflect their performance. Grades will be sent back electronically through Google classroom.

Materials Needed

- Fraction, Decimal, Percent Assignment Sheet
- Chromebook
- Internet access

Part 3: Teaching and Learning Strategies

Students will take an online assessment using the site/app called "Edulastic". The assessment will supply me with data to see how effective my strategies were. This is the link to their assessment https://app.edulastic.com/#renderResource/close/NDI1NjE2NTI4Ng%3D%3D. .

To teach the lesson I utilized the NearPod presentation strategy to convey my notes to students. This is an interactive app that allows me to project my notes on students' computers and control their pace. I can interact with students, create joyful learning moments, and get instant student insight. This app allows me not only to showcase my notes to students, but it gives them opportunities to answer open ended questions on their computers.

The Khan Academy site allows me to check for understanding with students. Students can watch short lesson videos if they need a reminder of steps. Students also work on supplementary problems that align with the concepts being taught.

Having students use Google classroom and Google Sheets to showcase their work is a great way to incorporate technology in the classroom. Use of multimedia items in the classroom I personally think makes learning more effective and I am able to reach all types of learners.

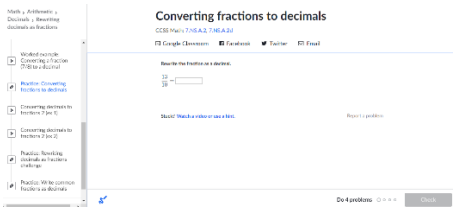
Lastly, students will take their assessment online on a site called "Edulastic". Instant feedback is given.

Part 4: Present and Analyze Technologies Used

I utilized the NearPod presentation strategy to convey my notes to students. This is an interactive app that allows me to project my notes on students' computers and control their pace. I can interact with students, create joyful learning moments, and get instant student insight. This app allows me not only to showcase my notes to students, but it gives them opportunities to answer open ended questions on their computers.

The Khan Academy site allows me to check for understanding with students. Students can watch short lesson videos if they need a reminder of steps. Students also work on supplementary

problems that align with the concepts being taught. This brings value in a sense that I use this as a formative assessment to see where students stand in terms of comprehension.



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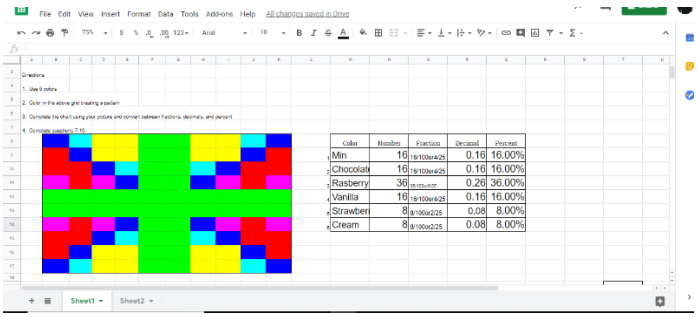
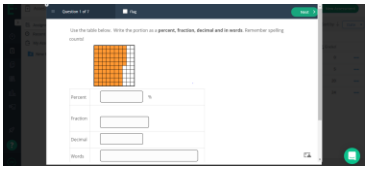


Color	Number	Fraction	Decimal	Percent
Min	16	16/100or4/25	0.16	16.00%
Chocolate	16	16/100or4/25	0.16	16.00%
Rasberry	36	36/100or9/25	0.28	36.00%
Vanilla	16	16/100or4/25	0.16	16.00%
Strawberr	8	8/100or2/25	0.08	8.00%
Cream	8	8/100or2/25	0.08	8.00%

Lastly, students will take their assessment online on a site called “Edulastic”. Having the assessment on an online platform allows students to receive instant feedback



To enrich and reinforce the instruction for this lesson I would create a mini project and have each students create a “Kahoot” that will be played by someone in the classroom. Kahoot is an site/app that makes it easy to create, share and play fun learning games or trivia in minutes.