

# Database Integration

Below is a list of possible ways teachers and students can utilize databases as part of a lesson plan.

## Banking Questions

Definition: Teacher or students create a database in which each record contains the question, possible answers and the correct answer. Also, a database field in the record is programmed to hide the answer until triggered by the users answer to the question.

Example: The teacher and students in a health science course create a database which includes The possible answers are programmed as radio button choices which display either the text “incorrect” or “correct” in a separate result field depending on which answer is selected.

## Classifying

Definition: Teacher or students create a database which contains records which students must analyze and put in to logical groupings. Teacher could also instruct students to utilize an online database which contains records the students must analyze and put in to logical groupings.

Example: Teacher of a biology course creates hundreds of records for various plants. Each record contains the name of the plant and empty fields for: kingdom, division or phylum, class, order, family, genus, and species. Students are task with filling the empty fields with accurate data.

## Cataloging

Definition: Students create a database which contains records for the purpose cataloging images, audio, video, or text.

Example: Students in a foreign language course create a database for various words. Included in each record are fields for Spanish text, English text, a representative image, and an audio pronunciation for the word.

## Filtering (Finding, Searching)

Definition: Teacher or students create a database which contains records which students must filter to answer objective questions or support subjective opinions. Teacher could also instruct students to utilize an online database which contains records the students must filter to answer objective questions or support subjective opinions.

Example: Students in an Architectural Drawing class are tasked with creating a visual presentation which shows examples of what type of public structure they would construct given a scenario assigned to them by the teacher. Students utilize the filtering capabilities of the online University of Washington Libraries: Digital Collections, Cities and Buildings Database to complete the assignment.



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## Finding Similarities

Definition: Teacher or students create a database which contains records which students must analyze and determine similarities. Teacher could also instruct students to utilize an online database which contains records the students must analyze and determining similarities.

Example: Teacher assigns her Geography students to find five similarities between seven different countries they are assigned to research. Students use the online version of the CIA: The World Factbook to reach their conclusions and providing supporting facts.

## Finding Differences

Definition: Teacher or students create a database which contains records which students must analyze and determine differences. Teacher could also instruct students to utilize an online database which contains records the students must analyze and determining differences.

Example: Students in European History class are assigned to research a former colony of a European nation and enter the data into a database the teacher has created. After students have completed their country they are tasked with contrasting their country with five other countries in the database.

## Ranking

Definition: Teacher or students create a database which contains records which students must analyze and put in a logical ranking. Teacher could also instruct students to utilize an online database which contains records the students must analyze and put in a logical ranking.

Example: Students in a career exploration unit are assigned the task of researching a specific occupation for ten different cities in the United States and rank their hourly pay in descending order. Students use the online version of the U.S. Bureau of Labor Statistics National Compensation Survey to gather the appropriate data.

## Rating

Definition: Teacher or students create a database which contains a field in each record for selecting a subjective ranking.

Example: Students in a graphics design course are task with rating comic book covers in a database their teacher has created. Each record in the database contains the image of a comic book cover which is rated by each student on a star system for categories like: color, tone, lighting, and storytelling. After all students have rated each comic book cover, the class discusses the results of the star ratings.



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## Recording Research

Definition: Students create a database for the purpose of collecting information related to topic being studied. This could take the form of a kiosk, face to face, or online survey.

Example: Students in a Sports Medicine course develop a database to record athletes' physical status before and after a sports related injury. Fields in the database might include: height, weight, flexibility, level of pain, and strength.

## Reporting

Definition: Teacher or students create a database which contains records which students must filter and put into put in a logical order. Teacher could also instruct students to utilize an online database which contains records the students must filter and put into put in a logical order.

Example: Students in a Business Management course are tasked with create one or more reports to support what cities they will open their first six imaginary franchises. Students download relevant electronic data from the U.S. Census Bureau which they import into their own database. From their database they create reports to support their final decisions.

## Sorting

Definition: Teacher or students create a database which contains records which students must analyze and put in a logical order. Teacher could also instruct students to utilize an online database which contains records the students must analyze and put in a logical order.

Example: Student in an Environmental Science course must answer a series of objective questions related to the worst disasters around the world based upon sorting data located in the online EM-DT: Emergency Events Database.

## Voting

Definition: Teacher or students create a database for purpose of students anonymously voting for candidates or propositions.

Example: Students in a U.S. government course conduct an anonymous mock election which mimics an upcoming election. Teacher creates an online database for the purpose of collecting the results. Students are issued a valid anonymous serial number by drawing it out of a hat. Students must enter their serial number as part of the voting process. Students are prevented from voting more than once because any duplicate votes by the same serial number are disqualified.

